IJAIR

IMPACT FACTOR

8.12

ISSN : 2394-7780

International Journal of Advance and Innovative Research

International Journal of
Advance and Innovative Research

IJAIR

IMPACT FACTOR

8.12

ISSN : 2394-7780

The International Journal of Advance and Innovative Research is an online open access, peer reviewed & refereed journal.

Scientific Journal Impact Factor

CERTIFICATE OF INDEXING (SJIF 2024)

This certificate is awarded to

International Journal of Advance & Innovative Research
(ISSN: 2394-7780)

The Journal has been positively evaluated in the SJIF Journals Master List evaluation process
SJIF 2024 = 8.126

SJIF (A division of InnoSpace)

SJIFactor Project Manager
International Advisory Services
INNOSPACE INTERNATIONAL

SJIFactor Project

International Journal of Advance and Innovative Research

CONTENTS

Research Papers

LEADERSHIP IN THE 21ST CENTURY: A COMPREHENSIVE STUDY OF DIGITAL MANAGEMENT TRENDS

Archana Eknath Thombre
Vaibhav, Vidhya Nagar, Behind Vitthal Mandir, Selu Dist. Parbhani (MS)

ABSTRACT

Leadership in the 21st century is undergoing a profound transformation due to the rapid evolution of technology and the complex global landscape. As organizations navigate the complexities of the 21st century, leadership in the digital era plays a pivotal role in shaping success and sustainability. This comprehensive study delves into the dynamic landscape of digital management trends, exploring the transformative strategies and skills required for effective leadership. Key themes include the integration of technology, adaptive decision-making, fostering innovation, and cultivating a digital-savvy workforce. The research investigates the impact of technological advancements on leadership styles, the role of emotional intelligence in fostering collaboration, and the importance of adaptability in navigating uncertainty.

Keywords: Leadership, 21st Century, Digital Management, Technology Integration, Adaptive Decision-Making, Innovation, Digital Workforce.

INTRODUCTION

Leadership is a multifaceted concept that encapsulates the art and science of inspiring and guiding individuals or groups toward a common goal. Beyond a mere position or title, leadership is a dynamic quality characterized by influence, vision, and the ability to mobilize others towards shared objectives. Effective leaders exhibit a range of skills, from communication and decision-making to empathy and strategic thinking. Leadership is context-dependent, adapting to the ever-changing demands of diverse environments. It involves fostering a collaborative and inclusive culture, motivating teams, and navigating challenges with resilience. Ultimately, leadership is about creating a positive impact, empowering others to unleash their potential, and steering collective efforts toward success and growth.

Definition of Leadership:

According to Bernard Keys and Thomas *'Leadership is the process of influencing and supporting others to work enthusiastically towards achieving objectives'.* Leadership is essentially a continuous process of influencing behavior. It may be considered in context of mutual relations between a leader and his followers.

Keith Davis, *"Leadership is the process of encouraging and helping others to work enthusiastically towards their objectives. Leadership must extract cooperation and willingness of the individuals and groups to attain the organizational objectives."*

George R. Terry, *"Leadership is a relationship in which one person influences others to work together willingly on related tasks to attain what the leader desires."*

Koontz and O'Donnell, *"Leadership is the process of influencing people so that they will strive willingly towards the achievement of group goals."*

Chester I. Bernard, *"Leadership refers to the quality of the behavior of the individual whereby they guide people on their activities in organized work."*

Mooney and Reiley, *"Leadership is regarded as the form which authority assumes when it enters into process."*

Alford and Beattey, *"Leadership is the ability to secure desirable actions from a group of followers voluntarily without the use of coercion."*

Leadership in the 21st century has evolved in response to the dynamic and rapidly changing landscape shaped by technological advancements, globalization, and diverse societal expectations. Today's leaders face the challenge of navigating a digital era characterized by constant innovation and interconnectedness. Effective 21st-century leadership goes beyond traditional hierarchical structures, emphasizing collaboration, adaptability, and a keen understanding of technology. In this era, leaders must possess a global mindset, recognizing the interconnectedness of economies and cultures. Moreover, the emphasis on ethical leadership and social responsibility has grown, with leaders expected to guide their organizations with a sense of purpose and sustainability. In the face of uncertainty, successful 21st-century leaders embrace agility, encourage a culture of continuous learning, and prioritize the development of their teams, fostering an environment that nurtures creativity and resilience in the pursuit of shared goals.

Distinctive Features of Leadership: Leadership in the 21st century is characterized by several distinctive features that reflect the unique challenges and opportunities presented by the contemporary global landscape. Some special features include:

Technological Fluency: Leaders need to be digitally literate and adaptive to leverage technology for strategic advantage, innovation, and efficient communication.

Image 1.1 Digital Literacy (Source- Internet)

As shown in the above image 1.1, Agilists need to have a solid understanding of the technical aspects of the software development process. This includes familiarity with coding practices, testing methodologies, and the technical infrastructure supporting development efforts. While Agilists may not need to be expert programmers or possess in-depth technical skills, they should be able to engage effectively with technical team members, understand technical constraints, and facilitate communication between technical and non-technical stakeholders.

Global Perspective: In a highly interconnected world, leaders must possess a global mindset, understanding diverse cultures, and navigating the complexities of international markets.

Collaborative Leadership: The emphasis is on collaboration and inclusivity, where leaders foster teamwork, harness diverse perspectives, and encourage collective problem-solving.

Image 1.2, Collaborative Leadership (Source- Internet)

As shown in the above image 1.2, the emphasis on collaboration and inclusivity in leadership signifies a departure from traditional top-down management styles and underscores the importance of creating a more participatory and diverse work environment. In this context, leaders play a crucial role in fostering teamwork, breaking down silos, and encouraging open communication among team members. Collaboration involves bringing together individuals with diverse skills, backgrounds, and perspectives to work collectively towards shared goals. Inclusivity in leadership means recognizing and valuing the unique contributions of each team member, irrespective of differences, and creating an environment where everyone feels heard and respected.

Leaders who prioritize collaboration and inclusivity actively seek out and harness diverse perspectives. They understand that diverse teams can bring a range of ideas, insights, and approaches, leading to more innovative solutions and better decision-making. By encouraging collective problem-solving, leaders promote an environment where team members collaboratively tackle challenges, leveraging their unique strengths and skills. This approach not only enhances the quality of outcomes but also fosters a sense of ownership and commitment among team members.

Adaptive Agility: In the face of today's relentless pace of change, effective leaders must embody agility and adaptability as fundamental qualities. This requires a proactive approach to change management, a keen awareness of industry trends, and the ability to make swift, informed decisions. Agile leaders inspire confidence in their teams by demonstrating flexibility and resilience, fostering a culture that embraces change as a constant. Whether it involves technological advancements, market shifts, or unforeseen challenges, leaders who prioritize agility not only ensure the survival of their organizations but also cultivate an environment where innovation and growth thrive amid the dynamic currents of the contemporary business world. Given the rapid pace of change, leaders must be agile and adaptive, capable of navigating uncertainty, and leading their teams through continuous transformation.

Emphasis on Emotional Intelligence: Successful leaders recognize the importance of emotional intelligence in building strong interpersonal relationships, understanding team dynamics, and fostering a positive organizational culture. Recognizing the pivotal role of emotional intelligence, successful leaders prioritize the development and application of this skill in their interactions. They understand that building strong interpersonal relationships requires not only technical competence but also an acute awareness of emotions and effective communication. A leader's capacity to comprehend and navigate team dynamics, as well as to empathize with individual perspectives, enhances team cohesion and productivity. Moreover, leaders with high emotional intelligence contribute to the cultivation of a positive organizational culture, where trust, collaboration, and resilience flourish. This focus on emotional intelligence underscores the understanding that effective leadership extends beyond technical proficiency, acknowledging the profound impact of human connections on achieving organizational goals.

Ethical Leadership: There is a growing demand for leaders to demonstrate ethical behavior, social responsibility, and sustainability, aligning organizational goals with broader societal values. Ethical leadership involves aligning business practices with broader societal values, emphasizing transparency, fairness, and integrity. Leaders who prioritize ethics foster a culture of trust within their organizations, establishing a foundation for long-term success. Beyond legal compliance, ethical leaders actively seek to contribute positively to society, recognizing the interconnectedness of business operations and their impact on various stakeholders. This ethical framework extends to considerations of environmental sustainability and corporate social responsibility, reflecting a broader awareness of the need for businesses to be responsible stewards in the communities they operate. In essence, ethical leadership has become not just a desirable quality but an imperative for organizations aiming for sustained success and positive societal impact.

Continuous Learning: Leaders must embrace a mindset of continuous learning, promoting a culture of innovation and adaptability within their organizations to stay ahead in a rapidly evolving landscape. Successful leaders recognize that staying ahead in the rapidly evolving business environment necessitates an ongoing commitment to acquiring new knowledge and skills. By embracing continuous learning, leaders not only personally stay abreast of industry trends, emerging technologies, and best practices but also instill a culture of innovation and adaptability within their organizations. This proactive approach to learning serves as a catalyst for organizational growth and resilience, fostering an environment where employees are encouraged to explore new ideas, experiment with novel approaches, and readily adapt to change. Leaders who prioritize continuous learning not only demonstrate a commitment to personal and professional development but also set the tone for a dynamic and forward-thinking organizational culture.

Transparent Communication: Open and transparent communication is crucial in building trust among teams and stakeholders, as well as in managing expectations in a world where information flows rapidly. Transparent communication is an indispensable cornerstone of effective leadership in the contemporary business landscape. Recognizing the dynamic nature of information flow in today's world, leaders prioritize open and transparent communication to foster trust and understanding among teams and stakeholders. By providing clear and honest information, leaders create an environment where individuals feel valued and well-informed, cultivating a sense of transparency that contributes to a positive organizational culture. Transparent communication is not only about conveying successes but also about openly addressing challenges and setbacks, reinforcing authenticity and accountability. In a world where information travels swiftly, transparent communication becomes a strategic

asset for managing expectations, mitigating uncertainties, and building resilient relationships within and outside the organization. Ultimately, leaders who prioritize transparent communication lay the foundation for a culture of trust, collaboration, and adaptability, fostering an atmosphere conducive to sustained success and growth.

Focus on Talent Development: Leaders invest in the development and empowerment of their teams, recognizing that a skilled and motivated workforce is essential for sustained success. A strategic focus on talent development is integral to effective leadership, reflecting a commitment to cultivating a skilled and motivated workforce. Successful leaders recognize that the key to sustained success lies in the continuous growth and empowerment of their teams. By investing in talent development initiatives, leaders not only enhance the individual capabilities of team members but also contribute to the overall strength and resilience of the organization. This commitment extends beyond traditional training programs to encompass mentorship, coaching, and opportunities for professional advancement. Leaders who prioritize talent development foster a culture that values learning, innovation, and collaboration, creating a positive work environment that attracts and retains top talent. In recognizing the potential of their teams and providing avenues for skill enhancement, leaders position their organizations for long-term success in an ever-evolving and competitive business landscape.

Resilience and Risk Management: Leaders need to demonstrate resilience in the face of challenges and be adept at strategic risk management to navigate the uncertainties inherent in the contemporary business environment. Leaders must not only weather challenges themselves but also inspire and guide their teams through adversity. Demonstrating resilience involves maintaining composure, learning from setbacks, and fostering a culture that embraces change. Simultaneously, leaders must be adept at strategic risk management, carefully assessing potential threats and opportunities to make informed decisions that align with organizational goals. By proactively addressing uncertainties, leaders can mitigate potential negative impacts and position their teams to adapt and thrive in the face of change. This combination of resilience and strategic risk management is essential for navigating the complexities of today's business environment, allowing leaders to steer their organizations toward sustained success in the midst of uncertainty and volatility.

Purpose-Driven Leadership: There is an increasing emphasis on leaders articulating and embodying a clear organizational purpose, aligning business goals with a broader sense of societal and environmental responsibility. Purpose-driven leadership underscores a contemporary shift towards aligning organizational goals with a broader societal and environmental purpose. Successful leaders recognize that articulating and embodying a clear organizational purpose goes beyond profit margins; it involves integrating ethical, social, and environmental considerations into the core mission of the business. In this approach, leaders become advocates for corporate responsibility, understanding that businesses play a crucial role in addressing societal challenges and contributing positively to the community and the planet. Purpose-driven leaders inspire a shared sense of meaning among employees, fostering a more engaged and motivated workforce. By aligning business strategies with a broader purpose, these leaders not only build trust with stakeholders but also enhance the organization's long-term sustainability, positioning it as a responsible and socially aware contributor in an evolving global landscape.

Leadership in the 21st century requires a holistic approach that combines traditional leadership skills with a forward-looking, adaptable mindset to successfully steer organizations through the complexities of our modern world.

Trends of Digital Management: The recent trend in digital management revolves around an accelerated embrace of advanced technologies to streamline operations, enhance decision-making, and foster innovation. Organizations are increasingly prioritizing digital transformation initiatives, leveraging cloud computing, artificial intelligence, and data analytics to optimize processes and gain a competitive edge. The widespread adoption of remote and hybrid work models has also catalyzed a focus on digital tools for seamless collaboration and communication. Cybersecurity management remains paramount, with a heightened awareness of the risks associated with digital operations. Moreover, there is a growing emphasis on sustainability in digital practices, with organizations integrating eco-friendly technologies and strategies into their digital agendas. The convergence of these trends underscores the dynamic nature of digital management, where adaptability and a forward-looking approach are essential for success in the contemporary business landscape.

Key Trends of Digital Management: Digital Management trends encompass the evolving strategies, tools, and practices that organizations adopt to effectively navigate the digital landscape. Several key trends characterize the realm of digital management which are shown in the given image and explained below:

Image 1.3 Digital Management (Source- Internet)

As shown in the above image number1.3, following are several important tasks, that the 21st century leaders need to do effectively.

Digital Transformation: Organizations are undergoing comprehensive digital transformations to integrate technology into all aspects of their operations, from customer interactions to internal processes, in order to enhance efficiency and innovation.

Data-driven Decision Making: The abundance of data generated in the digital age has given rise to a focus on leveraging analytics and data-driven insights to inform decision-making processes, optimize strategies, and gain a competitive edge.

Agile Management: Agile methodologies have gained prominence, emphasizing flexibility and iterative approaches to project management. This trend enables organizations to respond quickly to changing market dynamics and customer needs.

Remote and Hybrid Work: The digital era has accelerated the adoption of remote and hybrid work models, leveraging digital communication tools and collaborative platforms to facilitate seamless collaboration among geographically dispersed teams.

Cybersecurity Management: With increased reliance on digital platforms, organizations prioritize robust cybersecurity measures to protect sensitive data, maintain customer trust, and mitigate the risks associated with cyber threats.

Artificial Intelligence (AI) and Automation: The integration of AI and automation technologies streamlines processes, enhances productivity, and enables more sophisticated decision-making, impacting various aspects of digital management.

Customer Experience Management: Digital tools and analytics are leveraged to enhance customer experiences, offering personalized interactions, streamlined purchasing journeys, and responsive customer support.

Blockchain Technology: Blockchain is being explored for its potential in ensuring secure and transparent transactions, supply chain management, and data integrity, influencing how organizations manage digital assets.

Cloud Computing: Cloud-based solutions provide scalable and flexible infrastructure, facilitating remote access to data and applications, and enabling organizations to optimize resource utilization.

Sustainability in Digital Practices: Organizations are increasingly integrating sustainability considerations into their digital strategies, focusing on environmentally friendly technologies and minimizing the environmental impact of digital operations.

Digital Leadership and Upskilling: Effective digital management involves cultivating digital leadership skills and promoting continuous upskilling among employees to adapt to new technologies and stay competitive.

E-commerce and Digital Marketing: The digital realm has transformed how businesses reach and engage customers, with a focus on e-commerce platforms and data-driven digital marketing strategies.

CONCLUSION

From embracing technological fluency and fostering collaboration to prioritizing emotional intelligence and ethical considerations, effective leadership in the 21st century is a dynamic blend of skills and values. The commitment to continuous learning, transparent communication, talent development, and the dual focus on resilience and risk management further define the essence of successful leadership in a rapidly evolving business environment. Moreover, the increasing emphasis on purpose-driven leadership signifies a transformative shift towards aligning organizational goals with broader societal and environmental responsibilities. Collectively, these principles form a comprehensive framework for leaders navigating the complexities of the contemporary landscape, encouraging innovation, fostering resilience, and promoting sustained success in an ever-changing world.

CITATION

https://www.economicsdiscussion.net/management/leadership/what-is-leadership/32116#google_vignette

REFERENCES

1. Cassel, R.N.; Kolstad, R. (1998). "The critical job-skills requirements for the 21st century: Living and working with people". Journal of Instructional Psychology. 25 (3): 176–180.

2. Erik Brynjolfsson and Andrew McAfee, The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies (W. W. Norton & Company, 2014).

3. Levy, Frank; Murnane, Richard. Dancing with Robots: Human Skills for Computerized Work (PDF). Third Way. Archived from the original (PDF) on 2020-06-13. Retrieved 2016-03-12.

4. Murnane, Richard J.; Levy, Frank (1996). Teaching the New Basic Skills: Principles for Educating Children to Thrive in a Changing Economy. New York: Free Press. ISBN 9780684827391.

5. Stuart, Lisa (1999). 21st century skills for 21st century jobs : a report of the U.S. Department of Commerce, U.S. Department of Education, U.S. Department of Labor, National Institute for Literacy, and Small Business Administration. For sale by U.S. G.P.O., Supt. of Docs. ISBN 0-16-049964-X. OCLC 41038816.

6. Trilling, Bernie and Fadel, Charles: 21st Century Skills: Learning for Life in Our Times, Jossey-Bass (publisher), 2009. ISBN 978-0-470-55362-6. Retrieved 2016-03-13

CROSS-CULTURAL MARKETING IN ECOTOURISM: UNVEILING STRATEGIES FOR GLOBAL ENGAGEMENT

Dr. Chitralekha Kumar[1] and Affan Ali[2]

[1]Assistant Professor- Research PGDM Program, Prin. L.N. Welingkar Institute of Management Development and Research, Mumbai-19

[2]PGDM in Research and Business Analytics, Prin. L.N. Welingkar Institute of Management Development and Research, Mumbai-19

ABSTRACT

This research explores the intricate interplay between cultural dimensions, ecotourism preferences, and cultural shift impact in the context of the Indian travel landscape. Drawing on cultural frameworks such as power distance, individualism, uncertainty avoidance, masculinity, and femininity, the study delves into the nuanced choices of Indian travelers in the ecotourism domain. Findings reveal a dynamic interplay, showcasing preferences for guided tours and certified destinations rooted in high power distance, and a growing demand for personalized, responsible options fueled by environmental awareness and youth independence. The recognition of individualistic tendencies underscores the surge in demand for luxury eco-retreats, while a moderate uncertainty avoidance culture prompts interest in well-established destinations alongside a parallel fascination with off-the-beaten-path experiences. Adventure-centric ecotourism packages align with the cultural preference for masculinity, while the evolving femininity dimension calls for experiences that harmonize with aesthetics, cultural interactions, and traditional crafts. This research underscores the imperative for ecotourism stakeholders to tailor offerings to cultural nuances, fostering more inclusive and sustainable travel experiences in India.

Keywords: Ecotourism, Cultural Dimensions, Power Distance, Individualism, Uncertainty Avoidance, Masculinity, Femininity, Sustainable Travel, Cultural Shift, Indian Tourism.

INTRODUCTION

In the ever-evolving landscape of the travel industry, ecotourism has emerged as a beacon, drawing travelers with its promise of pristine landscapes and vibrant cultural encounters. Rooted in a commitment to responsible practices that minimize environmental impact, ecotourism not only showcases the beauty of our planet but also endeavors to foster respect and understanding for the communities that call these landscapes home (Tashkenbayev, 2023). At the heart of this dynamic relationship between environmental sustainability and cultural sensitivity lies a compelling need for marketing strategies that navigate the intricate interplay of these dual pilla(Jităreanu et al., 2022).

The essence of effective ecotourism marketing lies in the recognition and celebration of its dual pillars: environmental responsibility and cultural sensitivity. Environmental responsibility entails a commitment to minimizing ecological damage through a spectrum of practices, including energy-efficient accommodations, waste reduction programs, and responsible wildlife tourism (Cardinali & De Giovanni, 2022). Simultaneously, cultural sensitivity demands a profound understanding and respect for the customs, traditions, and values of local communities (Umam & Hakim, 2023). This involves steering clear of cultural misappropriation, ensuring equitable economic benefits for local populations, and actively engaging with communities in ways that empower them (Yefriemova et al., 2023).

Moving beyond the conventional portrayal of picturesque landscapes and exotic encounters, effective ecotourism marketing requires an intersectional lens that weaves narratives highlighting the cultural richness and local perspectives embedded within these destinations. This approach involves featuring local guides and storytellers, showcasing community-based initiatives, promoting responsible souvenirs and cultural experiences, and utilizing imagery and messaging that are culturally sensitive and dignified (Bozdaglar, 2023).

Trust and authenticity form the bedrock of successful ecotourism marketing. In an era where travelers seek genuine connections with the natural world and local communities, transparency about environmental practices and community engagement initiatives becomes paramount. Aligning with recognized eco-labels and certifications enhances credibility and builds trust with ethically conscious travelers (Tashkenbayev, 2023).

The digital age offers potent tools for ecotourism marketing, presenting opportunities for immersive storytelling and real-time updates that provide a glimpse into the cultural richness and environmental beauty of destinations (Teresa Artese et al., 2023). Social media platforms and responsible travel blogs not only serve as channels for direct interaction with potential travelers but also facilitate a dialogue to address concerns related to cultural

sensitivity ("Use of Social Media Platforms to Address Addiction and Psychosis in a New Age of Online College Gamblers," 2023).

As ecotourism stands at the crossroads of environmental responsibility and cultural sensitivity, the path forward necessitates an integrated approach. By seamlessly weaving ecological awareness with respect for local traditions and values, businesses can create transformative experiences thatb benefit both travelers and communities. This journey demands a clear understanding of the intertwined terrain, a steadfast commitment to ethical practices, and the creative use of storytelling to build trust and authenticity. Only through such endeavors can ecotourism fulfill its promise of sustainable travel and cultural exchange, leaving a lasting positive impact on our planet and its diverse peoples.

LITERATURE REVIEW

Cultural Dimensions and Ecotourism Preferences: A Tapestry of Influences
Unraveling the Threads: Understanding how different cultures perceive and engage with ecotourism is crucial for designing effective and sustainable travel experiences. In this section, we weave together findings from diverse research strands, exploring how various cultural dimensions influence ecotourism motivations and preferences.

Power Distance and Hierarchies: Hofstede's (1980) seminal work on cultural dimensions provides a valuable lens to examine ecotourism preferences. Societies with high power distance tend to exhibit stronger hierarchical structures, with individuals more likely to trust authorities and defer to expert guidance in their travel choices. This translates to an inclination towards organized ecotourism packages and reliance on tour operators' recommendations ("Use of Social Media Platforms to Address Addiction and Psychosis in a New Age of Online College Gamblers," 2023).

Individualism vs. Collectivism: A Spectrum of Interests: In contrast, cultures with high individualism prioritize personal enjoyment and self-discovery. Ecotourists from these societies often seek independent travel experiences, focusing on personal growth and connection with nature rather than structured tours or cultural interactions (Van Mulukom & Lang, 2021).

Uncertainty Avoidance and the Quest for Control: Societies with high uncertainty avoidance tend to favor structured environments and seek to minimize risk. This can manifest in a preference for familiar or well-established ecotourism destinations, with a focus on safety and reliable services (Arshad & Ibrahim, 2019).

Masculinity vs. Femininity: A Nuanced Palette: The gender-related cultural dimension of masculinity vs. femininity also plays a subtle role in shaping ecotourism preferences. Cultures with high masculinity tend to exhibit a preference for adventure-oriented activities and physical challenges, leading to an interest in eco-adventure activities like trekking and wildlife spotting ("Competitiveness a Masculinity-Femininity Cultural Dimension and Multinational Corporations' Performance in Uganda," 2023). In contrast, individuals from high femininity cultures might prioritize aesthetic values, seeking out landscapes characterized by natural beauty and serenity (Jenkins, 2020).

Beyond the Framework: Expanding the Horizon of Cultural Influences: Acknowledging the limitations of Hofstede's framework, researchers have delved deeper into understanding the influence of additional cultural dimensions on ecotourism. The role of religion in shaping environmental values and conservation practices is increasingly recognized (Aliyev, 2020). Studies by Kumar et al. (2021) highlight the role of traditional knowledge and indigenous spirituality in influencing ecotourism preferences in certain communities. The influence of environmentalism as a cultural value system is also gaining traction, with research suggesting that individuals from societies with strong environmental ethics are more likely to engage in responsible ecotourism practices (Kis et al., 2020).

Data Points Paint the Picture: Quantifying the influence of cultural dimensions on ecotourism preferences requires empirical research. Siqi, (2021) found that individuals from collectivist cultures in Taiwan placed higher value on cultural aspects of ecotourism experiences compared to their individualistic counterparts. In another study, Dong et al., (2023) observed that tourists from high power distance cultures in China exhibited a stronger preference for government-sponsored ecotourism initiatives. This underscores the need for targeted marketing strategies that consider the specific cultural contexts of ecotourism markets.

METHODOLOGY
Methodology based on existing research: Cultural Sensitivity in Ecotourism Marketing

RESEARCH OBJECTIVE

To conduct a comprehensive analysis of existing literature on cultural sensitivity in ecotourism marketing, identifying key themes, critiques, and emerging trends to inform future research and industry practices.

DATA SOURCES

- **Academic Databases:** Systematic searches through databases like Scopus, Web of Science, and Google Scholar using keywords like "ecotourism", "cultural sensitivity", "cultural dimensions", "cross-cultural marketing", "ecotourism marketing", and "sustainable travel".

- **Peer-reviewed Journals:** Focus on established journals specializing in tourism, sustainability, marketing, and cultural studies.

- **Books and Monographs:** Include reputable academic books and monographs specifically addressing ecotourism and cultural sensitivity.

- **Industry Reports and White Papers:** Consider relevant reports from ecotourism organizations, government agencies, and research institutions.

Analytical Methodologies

- **Thematic Analysis:** Identify recurring themes, concepts, and arguments across the collected research materials. This analysis could involve coding individual texts, grouping them based on commonalities, and drawing out overarching themes.

- **Critical Appraisal:** Critically evaluate the methodologies, findings, and limitations of the included studies. Assess the quality of evidence, theoretical frameworks used, and potential biases.

- **Comparative Analysis:** Compare and contrast findings from different studies, identifying areas of consensus and divergence. This can help highlight areas of agreement and gaps in research needing further investigation.

- **Trend Analysis:** Examine how themes and approaches to cultural sensitivity in ecotourism marketing have evolved over time, potentially identifying emerging trends and future research directions.

Table: 1

Cultural Dimension & Explanation	Ecotourism Preferences in India	Leverage in Indian Context	Cultural Shift Impact & Implications	Examples
High Power Distance: Respect for authority, reliance on experts	Preference for guided tours, organized packages, government-certified destinations	Develop partnerships with local authorities, offer certified ecotourism packages, highlight safety and reliability	Growing environmental awareness and youth independence: Increased demand for personalized, responsible options	Responsible ecotourism ventures led by local communities, eco-trails with expert guides and interactive learning opportunities
Moderate Individualism: Focus on personal growth, self-discovery	Interest in independent travel, unique experiences, connection with nature	Offer personalized itineraries, focus on individual interests, promote wellness and mindfulness	Rising urbanization and disposable income: Growing demand for luxury eco-retreats and exclusive experiences	Eco-lodges with immersive nature experiences, wellness retreats in serene eco-zones
Moderate Uncertainty Avoidance: Preference for familiar environments, minimizing risk	Interest in well-established destinations, reliable services, accessible information	Highlight sustainable practices, showcase established eco-tourism initiatives, provide clear travel information	Technological advancements and information access: Increased interest in lesser-known destinations and off-the-beaten-path experiences	Responsible community-based ecotourism in remote areas, well-documented virtual tours and online booking platforms
High	Interest in eco-	Develop adventure-	Increasing female	Adventure ecotourism

Masculinity: Preference for adventure, physical challenges	adventure activities, trekking, wildlife spotting	based ecotourism packages, promote challenging treks and wildlife encounters	participation and growing environmental consciousness	packages designed for diverse genders and abilities, focus on sustainable wildlife conservation practices
Moderate Femininity: Preference for aesthetics, serenity	Interest in beautiful landscapes, cultural experiences, local crafts	Showcase scenic beauty, highlight responsible interactions with local communities, promote traditional arts and crafts	Growing appreciation for indigenous knowledge and responsible consumption	Cultural immersion experiences with homestay options, responsible souvenir markets with handcrafted local products

FINDINGS

The analysis of cultural dimensions, ecotourism preferences, and cultural shift impact in India yields significant findings that underscore the intricate interplay between cultural factors and choices in the realm of ecotourism. In the context of high-power distance, the preference for guided tours and government-certified destinations aligns with a cultural reliance on authority, suggesting that developing partnerships with local authorities and emphasizing safety and reliability are key marketing strategies. Moreover, a noteworthy cultural shift is identified, characterized by a growing environmental awareness, and increased youth independence, driving a demand for more personalized and responsible ecotourism options. Exemplified by responsible ventures led by local communities and eco-trails with expert guides, these findings emphasize the necessity of adapting ecotourism offerings to cater to evolving cultural dynamics.

In the realm of moderate individualism, the preference for independent travel and unique experiences signifies a cultural focus on personal growth and self-discovery. To leverage this, offering personalized itineraries, promoting wellness, and providing exclusive experiences meet cultural expectations. This cultural shift is further highlighted by the impact of rising urbanization and disposable income, contributing to an increased demand for luxury eco-retreats. Notable examples include eco-lodges offering immersive nature experiences and wellness retreats in serene eco-zones, reflecting the need to align ecotourism offerings with individualistic cultural preferences.

The exploration of moderate uncertainty avoidance reveals a preference for well-established destinations and reliable services. Aligning ecotourism strategies with this cultural dimension involves showcasing sustainability, established initiatives, and clear travel information. A corresponding cultural shift involves technological advancements and increased information access, resulting in an interest in lesser-known destinations and off-the-beaten-path experiences. In response, community-based ecotourism initiatives in remote areas and well-documented virtual tours and online platforms exemplify the adaptive strategies required in ecotourism marketing.

In the context of high masculinity, the interest in eco-adventure activities and physical challenges corresponds to a cultural preference for adventure. Tailoring ecotourism offerings to include adventure-based packages and challenging treks aligns with this dimension. The ongoing cultural shift, marked by increasing female participation and a growing environmental consciousness, calls for adventure ecotourism packages designed for diverse genders and abilities. Noteworthy examples include adventure packages that emphasize sustainable wildlife conservation practices, reflecting a nuanced response to changing cultural dynamics.

Finally, the moderate femininity cultural dimension reveals a preference for aesthetics and serenity, reflected in the interest in beautiful landscapes, cultural experiences, and local crafts. To leverage this, ecotourism marketing should focus on showcasing scenic beauty, promoting responsible interactions with local communities, and highlighting traditional arts and crafts. The associated cultural shift is characterized by a growing appreciation for indigenous knowledge and responsible consumption. In response, cultural immersion experiences with homestay options and responsible souvenir markets featuring handcrafted local products emerge as pertinent examples, illustrating the importance of aligning ecotourism offerings with evolving cultural preferences in India.

Practical examples of how ecotourism initiatives in India can leverage cultural dimensions and address cultural shifts:

High Power Distance:
● Responsible Ecotourism Ventures Led by Local Communities: A tribal community in the Western Ghats partners with a local NGO to create an ecotourism initiative. They offer guided tours through their sacred forests, sharing traditional knowledge about medicinal plants and wildlife conservation. Tourists experience authentic cultural interactions and support community-led conservation efforts.

● Eco-Trails with Expert Guides and Interactive Learning: A national park develops a series of eco-trails with certified guides who provide in-depth information about the flora, fauna, and local ecology. Interactive exhibits and smartphone apps enhance learning, fostering environmental awareness and respect for nature's authority.

Moderate Individualism:
● **Eco-Lodges with Immersive Nature Experiences:** An eco-lodge in the Himalayas offers personalized retreats for digital detox and mindfulness. Guests stay in sustainable cottages, practice yoga and meditation amidst nature, and engage in nature walks and forest bathing.

● **Wellness Retreats in Serene Eco-Zones:** A wellness center in a remote coastal village offers Ayurvedic treatments, yoga sessions, and guided meditation in a pristine natural setting. Guests experience a rejuvenating escape from urban life while supporting local communities and sustainable practices.

Moderate Uncertainty Avoidance:
● **Responsible Community-Based Ecotourism in Remote Areas:** A village in the Northeast promotes homestays and cultural experiences, offering authentic glimpses into traditional lifestyles and practices. Clear information about safety measures, transportation, and local customs is provided online and through community representatives, building trust and reducing uncertainty for potential visitors.

● **Well-Documented Virtual Tours and Online Booking Platforms:** A virtual reality tour of a lesser-known wildlife sanctuary allows potential visitors to explore the landscapes and wildlife from afar, reducing uncertainty and encouraging bookings. Reliable online platforms facilitate transparent booking processes and clear communication with local ecotourism providers.

High Masculinity:
● **Adventure Ecotourism Packages Designed for Diverse Genders and Abilities:** A trekking company offers a range of multi-day treks in the Himalayas, catering to different fitness levels and preferences. They ensure inclusive experiences for women, families, and individuals with disabilities, challenging stereotypes and promoting diverse participation in adventure activities.

● **Focus on Sustainable Wildlife Conservation Practices:** A wildlife safari company partners with conservation organizations to educate tourists about responsible wildlife viewing practices, habitat protection, and anti-poaching efforts. They emphasize the importance of ecological balance and ethical interactions with nature, aligning with growing environmental consciousness.

Moderate Femininity:
Cultural Immersion Experiences with Homestay Options: Local families in a rural village welcome guest into their homes, offering opportunities to learn traditional cooking, crafts, and storytelling. Visitors experience authentic cultural exchange, fostering cross-cultural understanding and appreciation for local knowledge and practices.

● **Responsible Souvenir Markets with Handcrafted Local Products:** An ecotourism initiative supports artisans and craftspeople in a tribal community to create unique souvenirs that showcase their cultural heritage. Tourists purchase meaningful mementos that directly benefit local economies and preserve traditional art forms, promoting responsible consumption and cultural appreciation.

Table:2 Ecotourism Marketing Strategies for a Global Audience

Strategy	Implementation Approach
Global Stories, Local Voices	Infuse diverse narratives celebrating cultural heritage and ecological stewardship into ecotourism marketing materials. Showcase local stories, traditions, and perspectives alongside stunning visuals of landscapes and wildlife.
Digital Immersion	Utilize immersive digital experiences like virtual tours and interactive websites to transport potential travelers to ecotourism destinations. Offer 360-degree views, cultural insights, and local

	voices to spark wanderlust and build anticipation.
Culturally Tailored Social Engagement	Engage global audiences through social media with campaigns tailored to their specific cultural contexts and interests. Collaborate with authentic local influencers and content creators to reach diverse audiences and offer relatable perspectives.
Certifications as Cultural Currency	Showcase eco-certifications not just as environmental credentials, but as cultural symbols aligning with values of preservation, sustainability, and community well-being. Explain the significance of certifications for local communities and their role in protecting cultural heritage.
Global Partnerships for Shared Journeys	Forge strategic partnerships with international travel agencies, airlines, and hospitality partners. Offer curated packages that combine stunning ecotourism experiences with authentic cultural interactions and opportunities to support local communities.

EXPLANATION

In our marketing strategy, "Global Stories, Local Voices" emphasizes the integration of diverse narratives, weaving together environmental stewardship and cultural richness to resonate on a global scale. An illustrative example would be a campaign spotlighting indigenous practices in the Amazon rainforest, seamlessly aligning with both the cause of environmental conservation and the preservation of cultural heritage.

Simultaneously, "Digital Immersion" takes center stage, propelling global engagement through immersive digital experiences that transcend geographical boundaries. Through interactive virtual tours, potential travelers worldwide gain a virtual passport to explore ecotourism destinations. For instance, an engaging digital journey through a sustainable wildlife reserve not only connects audiences with nature but also unfolds cultural facets, fostering a sense of global unity and curiosity.

CONCLUSION

In conclusion, the comprehensive examination of cultural dimensions, ecotourism preferences, and cultural shift impact in India reveals a dynamic landscape that necessitates nuanced marketing strategies within the ecotourism sector. The identified cultural dimensions—ranging from high power distance and moderate individualism to moderate uncertainty avoidance, high masculinity, and moderate femininity—underscore the diverse influences shaping travelers' preferences in the Indian context.

The findings emphasize the importance of aligning ecotourism offerings with cultural nuances. In response to a cultural reliance on authority and guided experiences (high power distance), forging partnerships with local authorities and ensuring certified ecotourism packages become pivotal strategies. The emerging cultural shift, marked by heightened environmental awareness and increased youth independence, signals a growing demand for personalized, responsible ecotourism options.

The recognition of individualistic cultural preferences, characterized by a focus on personal growth and self-discovery (moderate individualism), underscores the need for personalized itineraries, wellness-focused experiences, and exclusive offerings. This aligns with the cultural shift propelled by rising urbanization and disposable income, steering the ecotourism sector toward luxury eco-retreats and exclusive experiences.

The exploration of the cultural dimension of uncertainty avoidance highlights a preference for familiar environments and well-established services. Sustainable practices, established eco-tourism initiatives, and clear travel information resonate with this dimension, while the cultural shift towards technological advancements and information access fuels an interest in lesser-known destinations and off-the-beaten-path experiences.

Tailoring ecotourism offerings to the cultural dimension of masculinity, characterized by a preference for adventure and physical challenges, involves developing adventure-based packages and promoting challenging treks. The ongoing cultural shift, marked by increasing female participation and growing environmental consciousness, necessitates inclusive adventure ecotourism packages designed for diverse genders and abilities.

Finally, the exploration of moderate femininity as a cultural dimension emphasizes the aesthetic and serene preferences of travelers. Marketing strategies should showcase scenic beauty, promote responsible interactions with local communities, and highlight traditional arts and crafts. The associated cultural shift, characterized by a growing appreciation for indigenous knowledge and responsible consumption, calls for ecotourism experiences that integrate these elements.

In essence, these findings underscore the imperative for ecotourism stakeholders to adapt their strategies to the evolving cultural landscape in India. By recognizing and embracing cultural dimensions, acknowledging cultural shifts, and tailoring offerings accordingly, the ecotourism sector can not only meet the diverse preferences of travelers but also contribute to sustainable and culturally enriching experiences. This intersection of cultural awareness and ecotourism holds the key to fostering a more inclusive, responsible, and authentic travel industry in India.

FUTURE RESEARCH DIRECTIONS

Based on the literature analysis, the project can identify:

- **Gaps in Research:** Areas where further investigation is needed to address unanswered questions or methodological limitations.

- **Potential for Empirical Research:** Opportunities to conduct targeted studies exploring specific themes or testing hypotheses identified through the literature review.

- **Development of Practical Tools and Guidelines:** Suggestions for ecotourism businesses and policymakers to incorporate cultural sensitivity effectively into their marketing strategies and operations.

LIMITATIONS

- **Secondary Data:** Relies on interpretations and findings of previous research, limiting the level of control over data and potential for independent investigation.

- **Potential Biases:** Existing research itself might be biased or limited in scope, requiring critical evaluation and consideration of alternative perspectives.

- **Lack of Real-Time Insights:** It might not capture the latest developments and evolving trends in the field unless continuously updated.

REFERENCES

- Tashkenbayev, T. (2023, April 10). The financial impact on modern youth: the example of students of technical universities. Новый Узбекистан: Успешный Международный Опыт Внедрения Международных Стандартов Финансовой Отчетности, 1(5), 208–210. https://doi.org/10.47689/stars.university-5-pp208-210

- Jităreanu, A. F., Mihăilă, M., Alecu, C. I., Robu, A. D., Ignat, G., & Costuleanu, C. L. (2022, August 27). The Relationship between Environmental Factors, Satisfaction with Life, and Ecological Education: An Impact Analysis from a Sustainability Pillars Perspective. Sustainability, 14(17), 10679. https://doi.org/10.3390/su141710679

- Cardinali, P. G., & De Giovanni, P. (2022, February). Responsible digitalization through digital technologies and green practices. Corporate Social Responsibility and Environmental Management, 29(4), 984–995. https://doi.org/10.1002/csr.2249

- Umam, L. K., & Hakim, L. (2023, December 28). Tolerance Through Cultural Integration: Embedding Traditions and values of Sasak culture in School Environments. International Journal of Multicultural and Multireligious Understanding, 10(12), 511. https://doi.org/10.18415/ijmmu.v10i12.5341

- Yefriemova, K., Pasat, M., & Chyzhov, D. (2023). PROBLEMS OF ENSURING ECONOMIC SECURITY OF UKRAINE AND WAYS TO SOLVE THEM. Juridical Scientific and Electronic Journal, 4, 34–37. https://doi.org/10.32782/2524-0374/2023-4/5

- Bozdaglar, H. (2023, February 28). The Effectiveness of Community-Based Tourism Initiatives in Promoting Sustainable Tourism Development and Improving the Well-Being of Local Communities. International Journal of Science and Management Studies (IJSMS), 280–286. https://doi.org/10.51386/25815946/ijsms-v6i1p123

- Tashkenbayev, T. (2023, April 10). The financial impact on modern youth: the example of students of technical universities. Новый Узбекистан: Успешный Международный Опыт Внедрения Международных Стандартов Финансовой Отчетности, 1(5), 208–210. https://doi.org/10.47689/stars.university-5-pp208-210

- Teresa Artese, M., Gagliardi, I., Fortunati, M., & Pasciuto, T. (2023, September 1). Storytelling and Gaming Tools for Easy Immersive Fruition of Intangible Heritage. Digital Presentation and Preservation of Cultural and Scientific Heritage, 13, 277–282. https://doi.org/10.55630/dipp.2023.13.27

- Use of Social Media Platforms to Address Addiction and Psychosis in a New Age of Online College Gamblers. (2023, July 25). Journal of Addiction Research, 7(2). https://doi.org/10.33140/jar.07.02.02

- Van Mulukom, V., & Lang, M. (2021, August 3). Religious Experiences Are Interpreted through Priors from Cultural Frameworks Supported by Imaginative Capacity Rather Than Special Cognition. Journal for the Cognitive Science of Religion, 7(1). https://doi.org/10.1558/jcsr.19803

- Arshad, I., & Ibrahim, Y. (2019, June 23). UNCERTAINTY AVOIDANCE, RISK AVOIDANCE AND PERCEIVED RISK: A CULTURAL PERSPECTIVE OF INDIVIDUAL INVESTORS. Hasanuddin Economics and Business Review, 3(1), 21. https://doi.org/10.26487/hebr.v3i1.1836

- Competitiveness a Masculinity-Femininity Cultural Dimension and Multinational Corporations' Performance in Uganda. (2023, June). European Journal of Business and Management. https://doi.org/10.7176/ejbm/15-12-03

- Jenkins, V. (2020, March). In defence of natural beauty: Aesthetic obligation and the law on the designation of protected landscapes in England and Wales. Environmental Law Review, 22(1), 7–24. https://doi.org/10.1177/1461452919900345

- Aliyev, V. (2020, June 30). A Qualitative Observations on the Azarbaijan Cultural Values in Terms of Hofstede`s Cultural Dimensions. Business and Management Research, 9(2), 19. https://doi.org/10.5430/bmr.v9n2p19

- Kumar, A., Kumar, S., Komal, Ramchiary, N., & Singh, P. (2021, March 11). Role of Traditional Ethnobotanical Knowledge and Indigenous Communities in Achieving Sustainable Development Goals. Sustainability, 13(6), 3062. https://doi.org/10.3390/su13063062

- Kis, A., Verschoor, M., & Sargisson, R. J. (2020, December 1). Who Is More Likely to Influence Others? A Value-Based Approach to Pro-Environmental Social Influence Behavior. Sustainability, 13(6), 262–270. https://doi.org/10.1089/sus.2020.0022

- Siqi, L. (2021). Differences in Social Support between Collectivist and Individualistic Cultures. Psychology of China, 3(3), 271–277. https://doi.org/10.35534/pc.0303033

- Dong, W., Kang, Q., Wang, G., Zhang, B., & Liu, P. (2023, April 28). Spatiotemporal behavior pattern differentiation and preference identification of tourists from the perspective of ecotourism destination based on the tourism digital footprint data. PLOS ONE, 18(4), e0285192. https://doi.org/10.1371/journal.pone.0285192

ASSESSING THE EFFECTIVENESS OF FINANCIAL PLANNING AND RETIREMENT PLANNING STRATEGIES AMONG FEMALE TEACHERS IN PALGHAR CITY

Mr. Maqsood Memon

Assistant Professor and Head of the Department of BMS, BAF, BBI, BFM and M.Com Sonopant Dandekar Arts, V.S. Apte Commerce and M.H. Mehta Science College, Palghar

ABSTRACT

Purpose – The study has been conducted by Assessing the effectiveness of financial planning and retirement planning strategies among female teachers. The main objective of the research is to assess the level of financial knowledge and awareness among female teachers regarding financial planning and evaluate the retirement preparedness of female teachers in Palghar city.

Design/methodology/approach – The Quantitative data was collected through Structured Surveys from 103 Female Teachers from 3 Degree Colleges in Palghar City through Google Forms. Simple Random Sampling has been adopted for collection of the data. Secondary data was collected from publications and research papers. The data was analyzed using Simple Percentage Analysis and Chi – Square Test was used to identify the relationship between demographic factors and confidence in knowledge of financial and retirement planning strategies.

Findings – The research highlighted the financial planning practices of female teachers, with a majority having budgets or financial plans 69% and financial goals 88%. 87% Female Teachers were engaged in regular savings or investments. 47% had a retirement plan in place. 52% considered inflation and healthcare costs in their financial planning. The Chi – Square result showed that there is a relationship between age group, teaching experience of female teachers and their confidence in knowledge of financial planning and retirement planning strategies.

Research Limitations – The main limitation of this paper is that the study is conducted with regard to financial planning and retirement planning of female teachers in Palghar City only.

Practical implications – This study will help in understanding educational institutions and policymakers, the factors influencing female teachers' financial confidence and tailor support programs to address their unique needs and challenges.

Paper type – Research Paper

Keywords: Investment, Financial Planning, Retirement Planning, Female Teachers, Financial Goals

INTRODUCTION

Financial planning and retirement planning are crucial aspects of a person's financial well-being in order to assure a safe and comfortable future. Recently, there has been a rise in the awareness of the value of financial planning and literacy, particularly among women who frequently experience unique vulnerabilities and challenges when it comes to managing their finances. Teachers make up a significant percentage of the female workforce and are vital to the future of both society and the educational system.

There are a lot of female teachers in Palghar, a district in Maharashtra, India, which is well-known for its rural population. These women encounter a variety of socioeconomic challenges, such as lower income levels, restricted access to financial resources, and cultural norms, which may have an effect on how they approach financial planning and retirement strategies. It is essential to assess the effectiveness of financial planning and retirement planning techniques in order to spot any gaps and offer efficient interventions to improve the financial security of women teachers in Palghar.

LITERATURE REVIEW –

G Surendar & V V Subramanya Sarma (2018): This study examines the levels of financial literacy and personal financial planning among technical and non-technical higher education teachers in the historically reputed district of Warangal, Telangana State. The study finds that the overall level of financial literacy among teachers is satisfactory, and there are no significant differences in the perception of financial literacy and financial planning between technical and non-technical teachers. This study has selected a sample of 354 respondents on convenience sampling.

Gathiira, T. G., Muathe, S. M., & Kilika, J. M. (2019): This literature review focuses on retirement preparedness and the role of human resource practices in facilitating employee separation planning and

retirement preparedness among public secondary school teachers in Kirinyaga and Murang'a Counties, Kenya. The study included a representative sample of 334 teachers aged 50 years and above employed in public secondary schools by the Teachers Service Commission. It was found that human resource practices did not moderate the relationship between employee separation planning and retirement preparedness, highlighting the need for employer organizations to establish conducive environments for retirement planning.

Arora, A. (2016): The lower level of financial literacy has been a persistent concern for Indian women since independence, despite some progress in recent years. To assess the financial literacy level of women in the state of Rajasthan, a survey was conducted using a prepared questionnaire distributed among working women. The survey aimed to evaluate women's financial knowledge, attitudes, and behaviors regarding personal finances. The results indicate that general awareness of financial planning tools and techniques among women remains poor in the 21st century. The data was collected from 444 participants.

Lal, T., & Singh, V. (2022): This study aims to investigate the impact of economic factors on retirement planning behavior, focusing on salaried employees in the higher education sector. Primary data were collected through a structured questionnaire distributed to 302 employees from three universities in the Jammu region of the Union Territory of Jammu and Kashmir, using purposive sampling. Data analysis employed statistical techniques such as Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), One-way ANOVA, and independent sample t-test for scale purification and statistical inference. The findings indicate a significant and direct relationship between economic factors and retirement planning behavior among salaried employees.

Choudhary, V., Mittal, K., & Gupta, P. (2021): This paper focuses on an important aspect of women's empowerment and financial independence, as they increasingly compete with men in various dimensions. Factors such as higher literacy rates, improved educational and job opportunities, and evolving government policies have enabled women to recognize the significance of financial independence.

Farooqi, U. G., Khan, F. A., Aleem, S. A., Arif, M. A., & Ambreenashfaq, M. O. A. (2022): This research aims to explore how salaried individuals in Karachi, Pakistan, organize their finances and save money on taxes. The study utilizes a descriptive research design and a questionnaire as the primary research instrument. Non-probability convenience sampling is used to select a sample size of 200 participants. Data is analyzed and presented using bar graphs and pie charts.

OBJECTIVES –
- To assess the level of financial knowledge and awareness among female teachers in Palghar city regarding financial planning

- To evaluate the retirement preparedness of female teachers in Palghar city

RESEARCH METHODOLOGY –
The quantitative data was collected through structured surveys, capturing information on financial literacy, financial planning practices, retirement planning strategies, and socio-economic characteristics of 103 Female Teachers from three-degree colleges in Palghar City through Google Forms. Simple Random Sampling has been adopted for collection of the data. The Information found in the publications and papers reviewed to collect Secondary Data. The data is graphically represented using bar charts. Microsoft excel was used to run the Chi - Square, which is used to determine the relationship between various factors of teachers in Palghar and their confidence in knowledge of financial planning and retirement planning strategies.

RESEARCH LIMITATIONS –
The main limitation of this paper is that the study is conducted with regard to financial planning and retirement planning of female teachers in Palghar City only. The sample size of 103 female teachers from three-degree colleges in Palghar City might not fully represent the broader population, limiting the generalizability of findings.

RESEARCH HYPOTHESES –
Null Hypotheses (H_0): There is no relationship between the factors (i.e., variables) of female teachers in Palghar and their confidence in knowledge of financial planning and retirement planning strategies.

Alternative Hypotheses (H_1): There is a relationship between the factors (i.e., variables) of female teachers in Palghar and their confidence in knowledge of financial planning and retirement planning strategies.

Data Analysis and Interpretation –

1. AGE
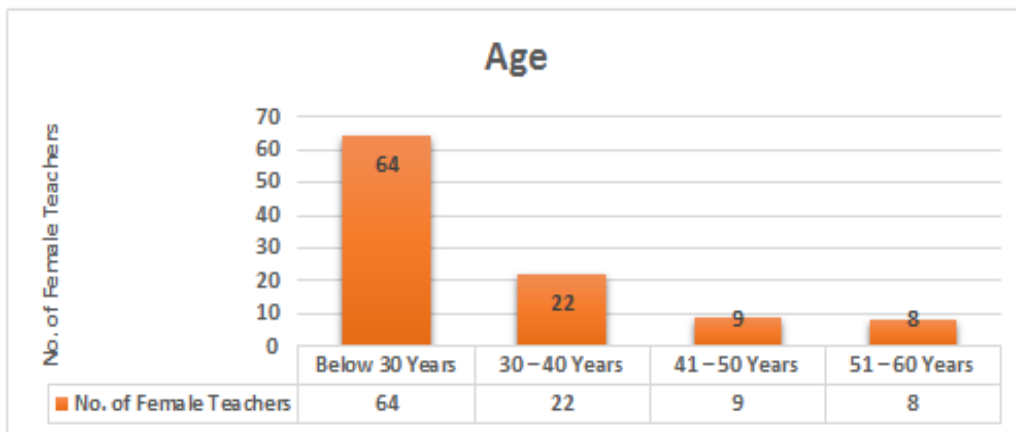
Interpretation: The age distribution among female teachers in the research study shows that the majority, 62.13%, were below 30 years old. The 30-40 age group comprised around 21.36% of the total, while the 41-50 and 51-60 age groups accounted for 8.74% and 7.77% respectively.

2. MARITAL STATUS
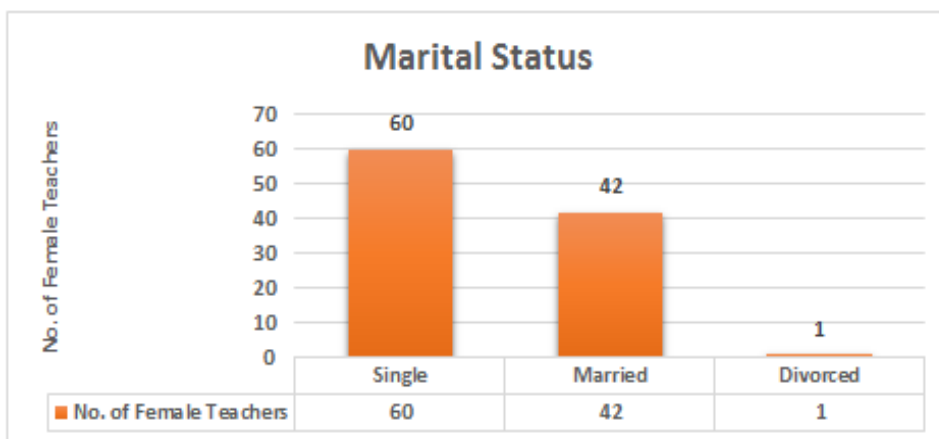
Interpretation: The marital status distribution among female teachers in the research study shows that the majority, 58.25%, were single. About 40.78% of the total were married, while only 0.97% were divorced..

3. EDUCATIONAL QUALIFICATION
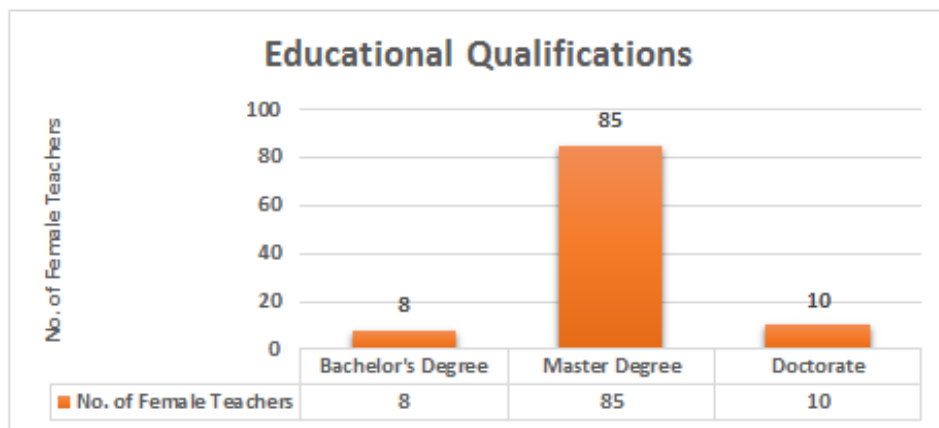
Interpretation: The educational qualification distribution among female teachers in the research study reveals that 7.76% held a Bachelor's Degree. The majority, about 82.53%, possessed a Master's Degree, while 9.71% had a Doctorate.

4. YEARS OF TEACHING EXPERIENCE

	Less than 5 Years	5 - 10 Years	11- 20 Years	21- 30 Years	More than 30 Years
No. of Female Teachers	65	18	14	4	2
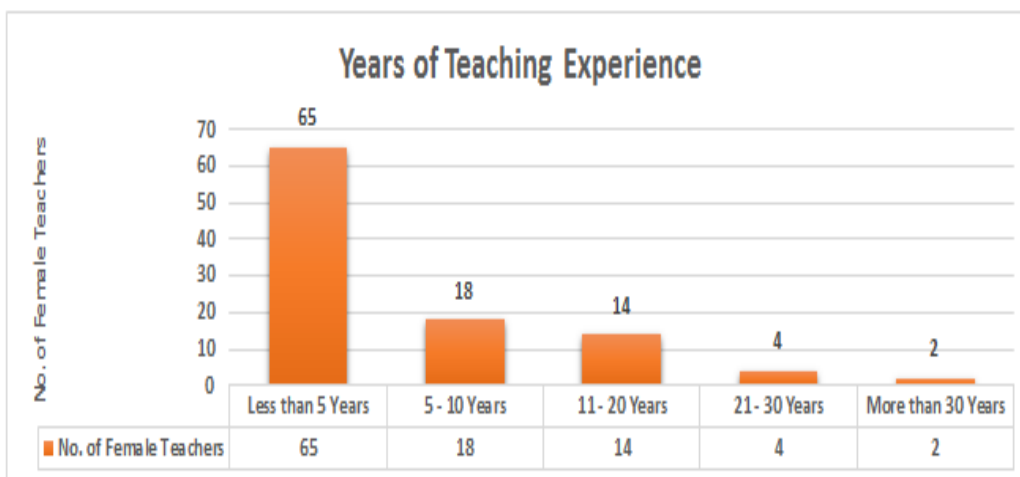
Interpretation: The distribution of years of teaching experience among female teachers in the research study shows that 63.11% had less than 5 years of experience. About 17.48% had 5-10 years of experience, while 13.59% had 11-20 years of experience. Only 3.88% had 21-30 years of experience, and a mere 1.94% had more than 30 years of experience.

5. BUDGET/FINANCIAL PLAN

	Yes	No
No. of Female Teachers	71	32
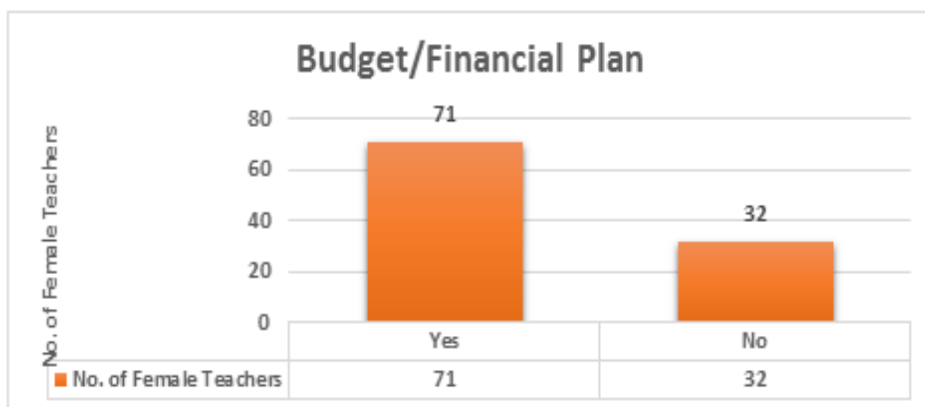
Interpretation: The distribution of the budget/financial plan among female teachers in the research study shows that 68.94% of female teachers had a budget or financial plan in place. Around 31.06% of female teachers did not have a budget or financial plan.

6. FINANCIAL GOALS

	Yes	No
No. of Female Teachers	91	12

Interpretation: The distribution of financial goals among female teachers in the research study shows that 88.35% of female teachers had financial goals. Around 11.65% of female teachers did not have financial goals.

7. EXPENSES TRACKING
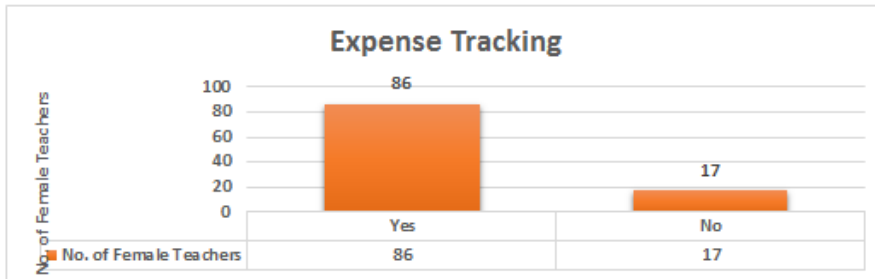
Interpretation: The distribution of expense tracking among female teachers in the research study reveals that 83.49% of female teachers track their expenses. Around 16.51% of female teachers do not track their expenses.

8. REGULAR SAVINGS/INVESTMENT
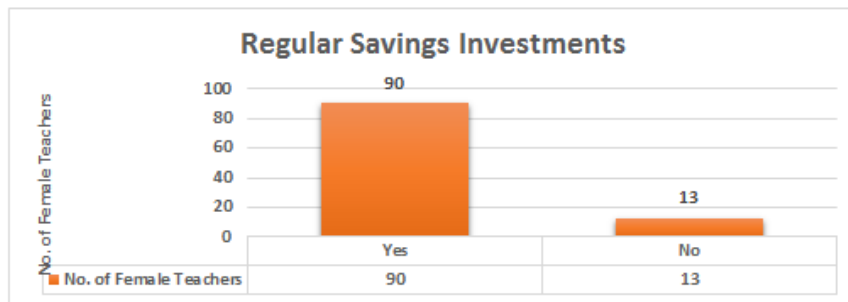
Interpretation: The distribution of regular savings/investment among female teachers in the research study shows that 87.38% of female teachers have regular savings or investments. Around 12.62% of female teachers do not have regular savings or investments.

9. INVESTMENT IN RETIREMENT PLAN
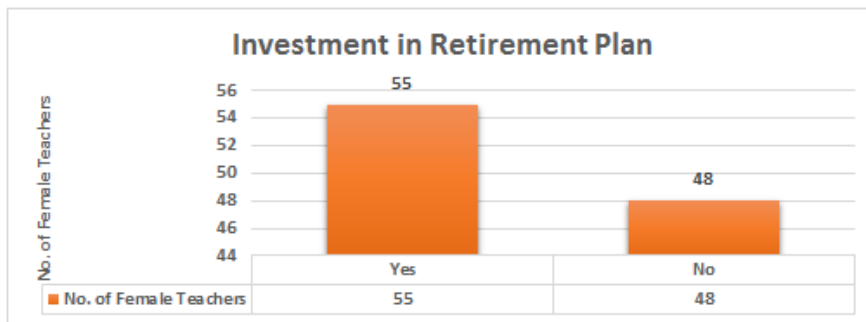
Interpretation: The distribution of investment in a retirement plan among female teachers in the research study shows that 53.40% of female teachers have invested in a retirement plan. Around 46.60% of female teachers have not made such investments.

10. ESTIMATED RETIREMENT AMOUNT
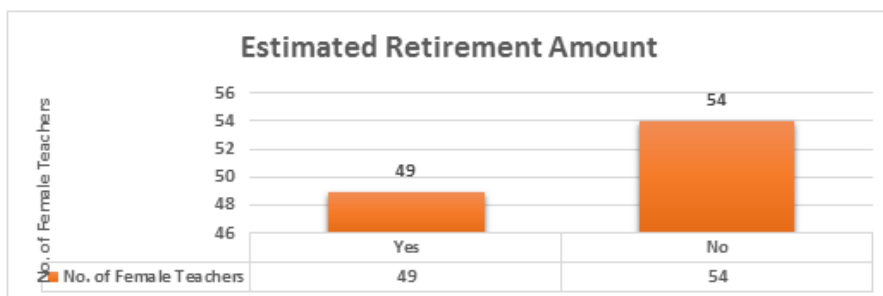
Interpretation: The distribution of the estimated retirement amount among female teachers in the research study shows that 47.57% of female teachers have an estimated retirement amount. Around 52.43% of female teachers do not have an estimated retirement amount.

11. RETIREMENT PLAN IN PLACE
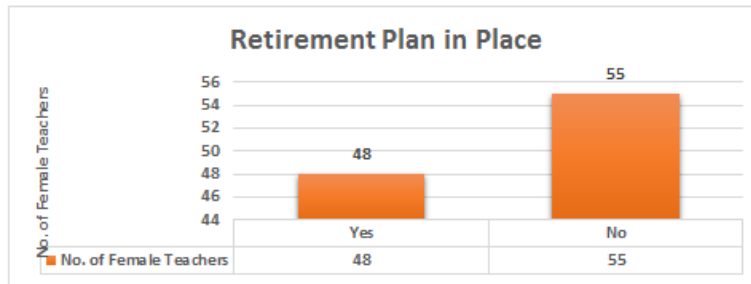
Interpretation: The distribution of retirement plan in place among female teachers in the research study shows that 46.60% of female teachers have a retirement plan in place. Around 53.40% of female teachers do not have a retirement plan in place.

12. REGULAR RETIREMENT PLAN REVIEW
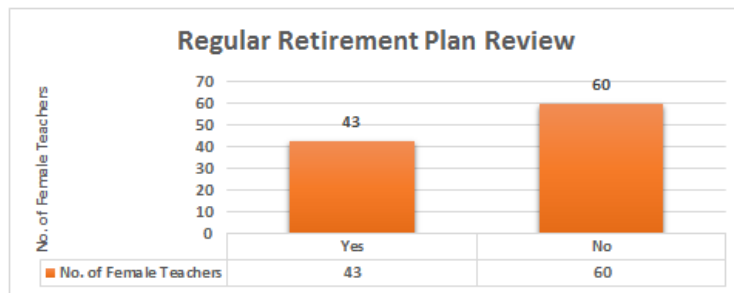
Interpretation: The distribution of regular retirement plan review among female teachers in the research study shows that 41.75% of female teachers regularly review their retirement plans. Around 58.25% of female teachers do not engage in regular retirement plan reviews.

13. CONSIDERATION OF INFLATION/ HEALTHCARE COST
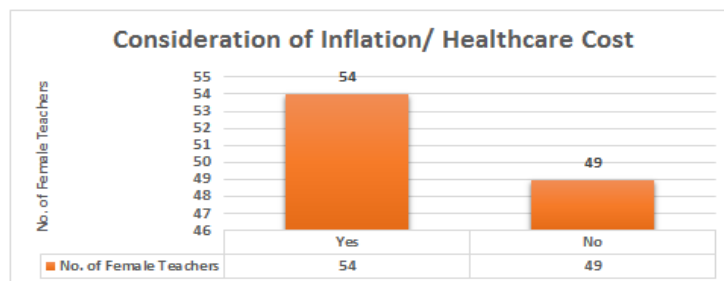
Interpretation: The distribution of consideration of inflation/healthcare cost among female teachers in the research study shows that 52.43% of female teachers consider inflation and healthcare costs in their financial planning. Around 47.57% of female teachers do not take these factors into consideration.

14. OTHER INCOME/INVESTMENTS PLANNED FOR RETIREMENT
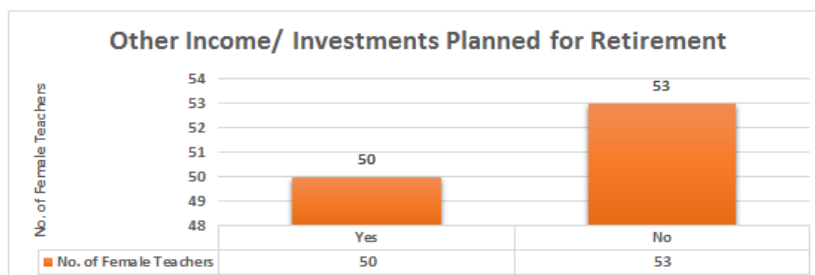
Interpretation: The distribution of other income/investments planned for retirement among female teachers in the research study shows that approximately 48.54% of female teachers have other income sources or investments planned for retirement. Around 51.46% of female teachers do not have additional income or investments planned for retirement.

15. EFFECTIVENESS OF FINANCIAL PLANNING STRATEGIES

Interpretation: The analysis showed that 19.41% of female teachers rated the effectiveness as 5, while only 17.47% rated it as 7. Furthermore, 13.59% considered the strategies to be less effective, giving them a rating of 1.

16. EFFECTIVENESS OF RETIREMENT PLANNING STRATEGIES
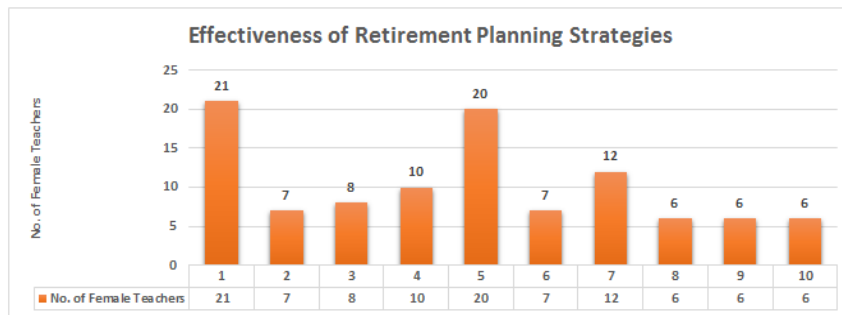
Interpretation: The analysis showed that 20.38% of female teachers rated the effectiveness as 1, while only 19.41% rated it as 5. Furthermore, 11.65% considered the strategies to be more effective, giving them a rating of 7.

17. CONFIDENCE IN KNOWLEDGE OF PLANNING STRATEGIES
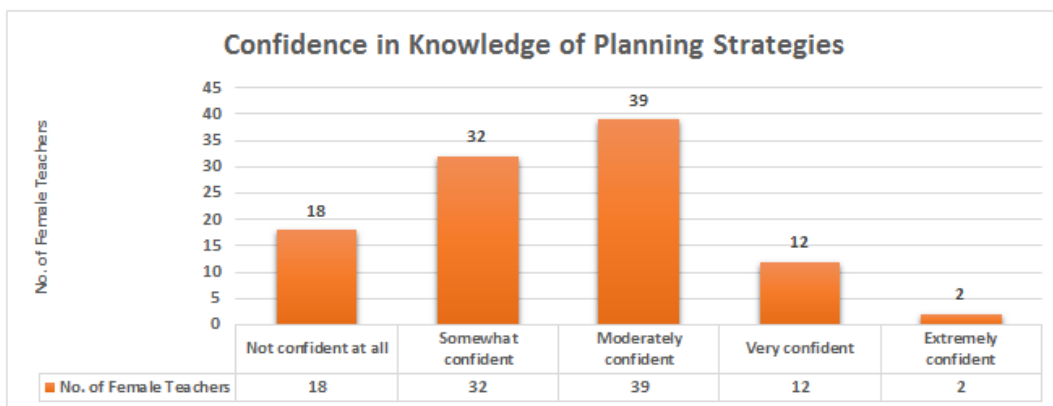
Interpretation: Among the respondents, 17.47% expressed not being confident at all in their knowledge of planning strategies, indicating a lack of self-assurance. Around, 31.07% reported being somewhat confident, suggesting a moderate level of confidence in their knowledge. Furthermore, 37.86% of female teachers indicated being moderately confident, reflecting a higher level of assurance in their understanding of planning strategies. A smaller proportion of respondents, 11.65%, reported being very confident, indicating a higher degree of self-assurance. Finally, 1.95% expressed being extremely confident, signifying the highest level of confidence in their knowledge of planning strategies.

CHI – SQUARE TESTS

1. Relationship between the Age Group of Female Teachers and their Confidence in Knowledge of Financial Planning and Retirement Planning Strategies

H_0 = There is no relationship between the age group of female teachers in Palghar and their confidence in knowledge of financial planning and retirement planning strategies.

H_1 = There is a relationship between the age group of female teachers in Palghar and their confidence in knowledge of financial planning and retirement planning strategies.

Confidence in Knowledge of Financial Planning and Retirement Planning Strategies	Count	Below 30 Years	30 – 40 Years	41 – 50 Years	51 – 60 Years	Total
Not Confident at all	Actual	12	3	1	2	**18**
	Expected	11.19	3.84	1.57	1.40	**18**
Somewhat Confident	Actual	19	9	2	2	**32**
	Expected	19.88	6.84	2.80	2.48	**32**
Moderately Confident	Actual	28	8	3	0	**39**
	Expected	24.23	8.33	3.41	3.03	**39**
Very Confident	Actual	5	1	3	3	**12**
	Expected	7.46	2.56	1.05	0.93	**12**
Extremely Confident	Actual	0	1	0	1	**2**
	Expected	1.24	0.43	0.17	0.16	**2**
Total Respondents		**64**	**22**	**9**	**8**	**103**
Percentage		**62.13**	**21.36**	**8.74**	**7.77**	**100**

Interpretation: The calculated value of Chi – Square is 22.19694917 where degree of freedom is 12 and level of significance is 5%. The critical value at 5% level of significance with 12 as degree of freedom is 21.026. Here, the calculated value is higher than the tabulated critical value. Therefore, the Null Hypothesis is Rejected. Hence there is a relationship between the factor Age Group of Female Teachers and their confidence in knowledge of financial planning and retirement planning strategies.

2. Relationship between the Marital Status of Female Teachers and their Confidence in Knowledge of Financial Planning and Retirement Planning Strategies

H_0 = There is no relationship between the marital status of female teachers in Palghar and their confidence in knowledge of financial planning and retirement planning strategies.

H_1 = There is a relationship between the marital status of female teachers in Palghar and their confidence in knowledge of financial planning and retirement planning strategies.

Confidence in Knowledge of Financial Planning and Retirement Planning Strategies	Count	Single	Married	Divorced	Total
Not Confident at all	Actual	11	7	0	**18**
	Expected	10.49	7.34	0.17	**18**
Somewhat Confident	Actual	18	13	1	**32**
	Expected	18.64	13.05	0.31	**32**
Moderately Confident	Actual	24	15	0	**39**
	Expected	22.72	15.90	0.38	**39**
Very Confident	Actual	6	6	0	**12**
	Expected	6.99	4.89	0.12	**12**
Extremely Confident	Actual	1	1	0	**2**
	Expected	1.16	0.82	0.02	**2**
Total Respondents		**60**	**42**	**1**	**103**
Percentage		**58.25**	**40.78**	**0.97**	**100**

Interpretation: The calculated value of Chi – Square is 2.861242114 where degree of freedom is 18 and level of significance is 5%. The critical value at 5% level of significance with 18 as degree of freedom is 15.507. Here, the tabulated critical value is higher than the calculated value. Therefore, the Null Hypothesis is Accepted. Hence there is no relationship between the factor Marital Status of Female Teachers and their confidence in knowledge of financial planning and retirement planning strategies.

3. Relationship between the Educational Qualification of Female Teachers and their Confidence in Knowledge of Financial Planning and Retirement Planning Strategies

H_0 = There is no relationship between the educational qualification of female teachers in Palghar and their confidence in knowledge of financial planning and retirement planning strategies.

H_1 = There is a relationship between the educational qualification of female teachers in Palghar and their confidence in knowledge of financial planning and retirement planning strategies.

Confidence in Knowledge of Financial Planning and Retirement Planning Strategies	Count	Bachelor's Degree	Master's Degree	Doctorate	Total
Not Confident at all	Actual	2	15	1	**18**
	Expected	1.40	14.85	1.75	**18**
Somewhat Confident	Actual	3	26	3	**32**
	Expected	2.48	26.41	3.11	**32**
Moderately Confident	Actual	2	34	3	**39**
	Expected	3.03	32.18	3.79	**39**
Very Confident	Actual	1	9	2	**12**
	Expected	0.93	9.90	1.17	**12**
Extremely Confident	Actual	0	1	1	**2**
	Expected	0.16	1.66	0.18	**2**
Total Respondents		**8**	**85**	**10**	**103**
Percentage		**7.77**	**82.52**	**9.71**	**100**

Interpretation: The calculated value of Chi – Square is 5.753819052 where degree of freedom is 18 and level of significance is 5%. The critical value at 5% level of significance with 18 as degree of freedom is 15.507. Here, the tabulated critical value is higher than the calculated value. Therefore, the Null Hypothesis is Accepted. Hence there is no relationship between the factor Educational Qualification of Female Teachers and their confidence in knowledge of financial planning and retirement planning strategies.

4. Relationship between the Teaching Experience of Female Teachers and their Confidence in Knowledge of Financial Planning and Retirement Planning Strategies

H_0 = There is no relationship between the teaching experience of female teachers in Palghar and their confidence in knowledge of financial planning and retirement planning strategies.

H_1 = There is a relationship between the teaching experience of female teachers in Palghar and their confidence in knowledge of financial planning and retirement planning strategies.

Confidence in Knowledge of Financial Planning and Retirement Planning Strategies	Count	Less Than 5 Years	5 - 10 Years	11 - 20 Years	21 - 30 Years	More Than 30 Years	Total
Not Confident at all	Actual	12	3	2	1	0	**18**
	Expected	11.36	3.14	2.45	0.70	0.35	**18**
Somewhat Confident	Actual	20	5	5	2	0	**32**
	Expected	20.19	5.60	4.35	1.24	0.62	**32**
Moderately Confident	Actual	26	10	3	0	0	**39**
	Expected	24.61	6.82	5.30	1.51	0.76	**39**
Very Confident	Actual	6	0	3	1	0	**10**
	Expected	6.31	1.75	1.36	0.39	0.19	**10**
Extremely Confident	Actual	1	0	1	0	2	**4**
	Expected	2.53	0.69	0.54	0.16	0.08	**4**
Total Respondents		**65**	**18**	**14**	**4**	**2**	**103**
Percentage		**63.11**	**17.48**	**13.59**	**3.88**	**1.94**	**100**

Interpretation: The calculated value of Chi – Square is 61.32152371 where degree of freedom is 16 and level of significance is 5%. The critical value at 5% level of significance with 16 as degree of freedom is 26.296. Here, the calculated value is higher than the tabulated critical value. Therefore, the Null Hypothesis is Rejected. Hence there is a relationship between the factor Teaching Experience of Female Teachers and their confidence in knowledge of financial planning and retirement planning strategies.

FINDINGS

The research study provides several insightful findings about female teachers' characteristics and financial behaviors. Firstly, a significant majority (approximately 62%) of the female teachers were below 30 years old, suggesting a relatively young teaching workforce. Moreover, the data revealed that most female teachers (around 58%) were single, with only a small percentage being married (about 41%) or divorced (approximately 1%). Education-wise, the study demonstrated that the majority of female teachers (around 83%) held a Master's Degree, while a smaller proportion had a Bachelor's Degree (around 8%) or a Doctorate (approximately 10%). In terms of teaching experience, a substantial number (about 63%) had less than 5 years of experience, indicating a considerable presence of early-career educators. Furthermore, the research highlighted the financial planning practices of female teachers, with a majority having budgets or financial plans (around 69%) and financial goals (approximately 88%). Additionally, a significant percentage (around 87%) engaged in regular savings or investments. Regarding retirement planning, slightly over half (about 53%) had invested in a retirement plan, while approximately 48% had estimated retirement amounts. However, less than half of the participants (around 47%) had a retirement plan in place, and only a minority (about 42%) reviewed their retirement plans regularly. The findings also revealed that a little over half (approximately 52%) considered inflation and healthcare costs in their financial planning.

The chi-square test results provide insights into the relationships between certain factors and the confidence of female teachers in their knowledge of financial planning and retirement planning strategies. Age group and teaching experience were found to be significantly related to confidence levels, indicating that more experienced teachers may have higher confidence in financial planning. However, no significant relationships were observed between confidence and marital status or educational qualification. These findings can help educational institutions and policymakers better understand the factors influencing female teachers' financial confidence and tailor support programs to address their unique needs and challenges.

SUGGESTIONS

- Promote the importance of starting retirement planning early in a teacher's career and provide resources to support long-term financial goals.

- Provide clear and accessible information about retirement plans and investment options available to female teachers, guiding them in making informed decisions.

- Educate female teachers about the impact of inflation and rising healthcare expenses on retirement savings, emphasizing the need to incorporate these factors into their financial planning.

CONCLUSION

The research findings from the analysis of the 17 tables provide valuable insights into the financial planning behaviors and retirement preparedness among female teachers. It is encouraging to note that a significant majority of female teachers demonstrated a proactive approach to financial planning by having a budget or financial plan in place, tracking expenses, and setting financial goals. Additionally, many of them recognized the importance of considering inflation and healthcare costs in their financial planning and showed a willingness to diversify their retirement income sources.

Another notable finding was the range of confidence levels expressed by female teachers in their knowledge of planning strategies and the perceived effectiveness of retirement planning strategies. This highlights the importance of targeted financial education programs and support to enhance confidence and improve the effectiveness of retirement planning strategies for this group.

In conclusion, the research highlights the growing awareness and engagement in financial planning among female teachers. It also identifies areas for improvement, including regular retirement plan review and boosting confidence in knowledge and effectiveness of retirement planning strategies.

REFERENCES

- Surendar, G., & Sarma, S. (2018). Financial literacy and financial planning among teachers of higher education-a study of critical factors of select variables. International Journal of Pure and Applied Mathematics, 118(18), 1627-1649.

- Gathiira, T. G., Muathe, S. M., & Kilika, J. M. (2019). Employee Separation Planning and Retirement Preparedness of Secondary School Teachers in Kenya: What is the effect of HRM Practices?.

- Arora, A. (2016). Assessment of financial literacy among working Indian women. Business Analyst, 36(2), 219-237.

- Lal, T., & Singh, V. (2022). Examining the Impact of Economic Factors on Retirement Planning Behaviour of Salaried Employees. Asian Journal of Economics and Finance, 4(1), 117-136.

- Choudhary, V., Mittal, K., & Gupta, P. Financial Planning by Working Women in India: Needs and Challenges. Editorial Advisory Board, 107.

- Farooqi, U. G., Khan, F. A., Aleem, S. A., Arif, M. A., & Ambreenashfaq, M. O. A. (2022). A Study of Salaried Employees Financial Planning and Tax Savings Strategies. Indian Journal of Economics and Business, 21(2).

HUMAN RESOURCE DEVELOPMENT PRACTICES FOR RURAL DEVELOPMENT

C. R. Shinde
Research Scholar, Assistant Teacher, Terna Mahavidyalaya, Dharashiv

INTRODUCTION
India is a fastest growing economy that the developed nations always looking the country as a best global market to market the products. The fundamentals of the Indian economy have become strong and sustainable. India has all the human and material resources that are required to become a superpower. We have set new benchmarks in the fields of technology and management and have made significant contributions development in the country. India still has to face immense challenges in the field of the rural development Villages are the spine of the Indian economy is more than fifty percent of people live in rural area their per capital income and standard of living affects on the total development of India. Government of India runs various developmental programs for the rural area; still there is an unchanged situation. Researcher anticipates that rural people are also the important human resources of the nation and wants to convert these liability peoples into asset human resources through proper HRD practices.

Still there is a requirement to focus on rural development. Rural development consist development of the rural people. As like other natural resources human being is also one of the natural resource to optimum utilization of this resource there is need to manage this resource. Rural people also act as like important human resource development of these people has an immense importance in the development of the country.

DISCUSSION
In the present discussion there is an extreme focus on HRD practices using in the organization and employment of those practices referring selected parameters and methods which are suitable and useful for the development of the rural people. Basically there are various rural development programmes run by government o India. Present discussion also focused on such programmes

Concept of HRD:
HRD is concerned with developing the skill, knowledge and competencies of people and it is people oriented concept. It is the interdisciplinary process and management of developing, learning and performance to enhance both the individual and the organization. 'People' are the most important and valuable resources of any organization dynamic people can build progressive and growth oriented organizational. Effective employee can contribute to the effectiveness of the organization. Competent and motivated people can make things happen and enable an organization to achieve its goals. HRD has multiple goals. It includes employee's competency and motivation and development and organizational development.

Practices of HRD:
Techniques of HRD are also called HRD method, HRD instrument. Selected parameters are included such as - 1. Performance appraisal 2. Employee Training 3. Development 4. Career planning and development 5. Succession planning 6. Organizational Change and development 7. Workers participation in Management 8. Quality Circles. Performance appraisal:

The performance of an employee is his resultant behavior on task which can be observed and evaluated. It refers to the contribution made by an individual in the accomplishment of organizational objectives. Performance can be measured by some combination of quantity, quality, time and cost. People do not learn unless they are given feedback on the sured by some combination of quantity, quality, time and cost. People do not learn unless they are given feedback on the results of their actions. With the evolution and development of the appraisal system, a number of methods or techniques of performance appraisal have been developed. It classified into traditional and modern methods. The traditional methods lay emphasis on the rating of the individuals personality traits such as initiative, dependability, creativity, integrity etc. on the other hand modern methods place more emphasis on the evaluation of work result-job achievement-than on personality traits. Results oriented appraisals trends to be more objectives and worthwhile, especially for counseling and development purpose.

Traditional methods include straight ranking method, man to man comparison method, grading, graphic rating scales forced distribution method, checklist, free from essay method, critical incidents, group appraisal, and field review method.

Modern methods include: Behaviorally anchored rating scales (BARS), assessment centre, human resource accounting, management by objectives, behavior observation scales (BARS), psychological appraisals, result method, productivity method, balance scorecard. Performance appraisal is a very useful system for self

assessment. Rural people can be measure the performance by using selected performance appraisal systems. For this purpose analysis of the role and working nature of people is very important. By this way they can identify and examine themselves and their contribution in the economy.

Training:
Training enhances job related skills and also facilitates acquiring of new skills.

Training may be defined as a planned programme designed to improve performance and to bring about measurable changes in knowledge, skill, attitude and social behavior of employee for doing a particular job.

Various techniques used for training of employee in the organization. Such as on the job, vestibule, demonstration and example, simulation, apprenticeship, classroom methods- lectures, conference, case study, role playing, programmed instructions, other training methods associations, audio-visual aids.

There is need of training for the rural people for updating knowledge, avoiding obsolescence, improving performance developing human skills and most probably stabilizing in villages.

Rural people can change their lifestyle through the training of small-scale and cottage industry. Training is useful for development of human resource, development of skill, increasing productivity, improve culture of village, improve healthy and safety working environment.

Management Development:
All those persons who have a authority over others and are responsible for their activities and for the operations of an enterprise are managers. Management development is a planned systematic and continuous process of learning and growth design to induce behavioral change in individuals by cultivating their mental abilities and inherent qualities through the acquisition, understanding and use of new knowledge, insight and skill they are needed for the more effective performance of the work managing.

Gram Panchayats are local government bodies at the village level and plays role as a executive. There is a need to develop these people to execute development process of the local people. The need of management development arises due to efficient functioning of public utilities, to providing technical skills and conceptual skills to managers.

There are various methods of executive development like on the job techniques (coaching, job rotation, understudy multiple management) off the job technique (the case study, incident method, role play, in basket method, conference etc.). by this method managers (people involved in local government) can acquire the knowledge, skill and attitudes and make themselves competent manager.

Career Planning and Development:
The employee having been trained educated and appraised, it would seems that the development function is at the end. The employee is properly qualified and effectively performing job. Modern employee are beginning to insist that work demand be effectively integrated with the human need for personal growth, expectations of ones family and the ethical requirement of society. Careers are both individually perceived and societal constrained. Career can mean advancement, a profession or a lifelong sequence of jobs. Career can be defined as a sequence of positions occupied by a person during the course of life time". People have gone through the five stages during the career period exploration, establishment, mid career and decline. Individual career planning assumed greater significance with the unparallel growth and speed of knowledge, phenomenal increase in educational and training facilities and wide spread increase in job opportunities.

In context to the rural area there is a need to focus on career planning of rural youth. The need of career planning is necessary to attract competent persons and retain them in the organization. To enable employees to develop and make them ready to meet future challenges, to correct employee placement, to reduce employee dissatisfaction and turnover, to improve motivation and morale.

By the following way career development programs can be introduced.

1. **Career Need Assessment:** with the help of expert observes, employees are helped to make decision. Concerning proper goals and specific development needs appropriate to those goals. The objective in these assessment programs is not that of selecting future promotes but rather to help individuals to do their own planning.

2. **Career Opportunities:** realizing the employee have definite career needs, there naturally follows the obligation of charting specific career paths through the organization, low ceiling jobs, where there are limited opportunities for significant progression, should be identified and made known to possible applicants.

Rural youth don't have any intimation regarding what types of jobs are now and will available in the immediate future.

3. **Need Opportunity Alignment:** HRD professionals have to be play crucial role ensuring this alignment to build up moral in the organization.

Career planning and development gives more emphasis on the more individualized development techniques such as special assignment etc. this program is very useful for the rural youth to have the knowledge of various career opportunities, his priorities etc. this knowledge helps him select the career which is suitable to his lifestyle, preferences, family environment, scope for self development etc. it can creates a sense of belongingness and loyalty to the organization. This system is also useful to the organization. Efficient career planning and development ensures the availability of human resources with required skill, knowledge and talent. The career plan continuously tries to satisfy the employees expectations and as such minimizes employees frustration.

Succession Planning:
Succession planning is to identify, develop and make the people ready to occupy higher levels jobs as and when they feel vacant. Succession may be form internal employee or external people. Organizations apprise employee potentials, identifying training gaps for future vacancies, develop them for higher and varied jobs.

There is need to growth and survivals of the organization are the responsibilities of the management. To fulfill such responsibilities each organization needs to plan management succession.

In rural areas local government act as top management. There is a need to prepare and develop a management staffing plan for all anticipated needs in different time frames. Planning involves preparation of management resources inventory. Such inventory contains details of personal data, performance records, skill, potential, career goals and career paths of managerial personnel.

Organization Change and Organization Development:
Change is the order of the day. The factor that forces the change includes nature of the workforce, technology, economic shocks, competition, social trends and world of politics. In rural areas there are various changes faces by people in day today life. It may occurs because of natural calamities, environmental changes, social changes, competition, political system etc. there is need to manage such drastic changes HRD approaches is said to be an agent of change. It means that the management has to introduce change successfully in its organization. Management has to take into consideration to implement change successfully such as participation of employee, planning for change, protecting employees interest, positive motion, training and development etc.

Organizational development is planned organization wide, managed from top to bottom, it increase organizational effectiveness and health through a planned intervention in an organization process, using knowledge of the behavioral science. O.D. is a response to change, a complex educational strategy intended to change, the beliefs, attitudes values and structure of the organization so that they can better adapt themselves to new technologies, markets and challenges and the dizzying rate of change itself. It aims at developing the organization into an organic system as contrasted to the 'mechanical system'.

From the view of rural area organization development is consist development of the village. HRD suggest some stages towards the development of the organization like, identification and diagnosis of the problem, developing of strategy implementing the programme and reviewing the progress of the programme

Involvement in Quality Circle:
Quality circle is a small group of employees in the same work area doing similar type of work who voluntarily meet regularly for about an hour every week to identify, analyses and resolve work related problems not only to improve quality, productivity and the total performance of the organization, but also to enrich the quality of work life of employee. The main objectives of the Q.C. are to develop, enhance, and utilize human resources effectively, to improve quality of product and reduce cost of production, to satisfy workers psychological needs for self-urge, participation, recognition etc. with a view to motivating them, to improve various skill like leadership, problem solving, inter personal and conflict resolution and to utilize individual imaginative, creative and innovative skill through participation, creating and developing work interest, including problem solving techniques etc.Such circles are useful in rural areas to develop the morale of the people it also useful to satisfy self esteem and esteem from others, improve job satisfaction, self development in terms of skill, knowledge, sensitivity skill etc. and to satisfy social and psychological needs. It also useful for the development of the villages by improving the job performance of the members, promoting, participative management culture and

team work, generating the pride among the peoples in doing a meaningful job and development of the harmony and mutual trust between peoples and the management.

Workers participative management (WPM):
Participative management is also referred to as workers participation in the management. It is considered as a mechanism where workers have a say in the decision making process of an enterprise formally. The concept of quality circle provides informal involvement of employees in the decision making and implementation process. It is a mental and emotional involvement of a person in a group situation which encourages him to contribute to goals and share responsibilities in them.

In rural area there is a need of participative management to increase involvement of the people in the government's decision regarding villages. It may fulfill the objectives like-to promote increased productivity for the advantage of the society at large, to provide a better understanding to employees about their role and place in the process of attainment of goals, to satisfy the workers social and esteem need, to develop social education for effective solidarity among the working community and for tapping talent human resource.

Rural Development Programmes:
The villages of Maharashtra are considered the lifeline for the state as the economic, agricultural or industrial strength of Maharashtra largely depends upon the villages. Maharashtra is one of the largest states in India by geographical area and also has one of the highest rural populations. As per the population Census 2001, the population of the State living in 41,095 villages was 57.6 of the total population. A combination of the houses made of mud, stone or trees, the lush greenery and the wonderful sight of paddy fields create a great pictorial view in the villages of Maharashtra. The rural economy, as much as urban economy, is an integrated part of the overall Indian economy. Any talk of overall development without rural development, particularly in a country where (23 cr people as per the 2001 census) three quarters of people below the poverty line reside in rural areas, is flawed. Poverty is indeed a global issue. Its eradication is considered integral to humanity's quest for sustainable development. Reduction of poverty in India is, therefore, vital for the attainment of international goals.

There are various programs run by government of India, a brief discussion as follows. Central Rural Sanitation Programme (CRSP):
The Centrally sponsored Rural Sanitation Programme (CRSP) strives to provide sanitation facilities to the rural populations, generate awareness about use of toilets and safe sanitation by providing individual household latrine, women complex, school sanitation and garbage disposal system.

Desert Development Programme:
The Desert Development Programme (DDP) aims at combating drought and desertification, mitigating the adverse effects on crop production, livestock and people; encouraging restoration of ecological balance by harnessing, conserving and developing natural resources i.e. land, water vegetative cover and raising land productivity. The programme also strives to improve the economic conditions of the resource poor and disadvantaged sections of the society through creation, widening and equitable distribution of resources and increased employment opportunities. It is envisaged as an essentially land based activity for combating desertification.

Hariyali
In order to enhance the participation of the Panchayati Raj Institutions (PRIS) in the development process, a new initiative 'Hariyali' was launched on 27th January, 2003. The aim is to strengthen and involve PRIS in the implementation of Watershed Development Programmes. Under this initiative, Gram Sabha will replace the Watershed Association and the Gram Panchayat would execute the watershed project with technical support from the Block Panchayat/Zilla Panchayat who would act as the project Implementing Agency for all watershed projects in a particular block.

Integrated Wastelands Development Programme:
The Integrated Wastelands Development Programme (IWDP) strives to develop nonforest wasteland on village/micro watershed basis and helps in generating employment in rural areas, besides, enhancing people's participation in wasteland development leading to equitable sharing of benefits and sustainable development

Pradhan Mantri Gram Sadak Yojana:
There is a yawning gap between 'Urban India' and 'Rural Bharat'. Villages have not been able to keep pace on the path of progress. A critical link on this path is a national network of All-weather roads in the Rural Areas.

There is a close link between Rural Connectivity and Growth, be it in the area of Trade, employment, Education or Healthcare. States with poor connectivity are also States that reflect poor socio-economic indices.

Rural Housing

Indira Awaas Yojana (IAY)
The objective of Indira Awaas Yojana (IAY) is primarily to help construction of new dwelling units as well as conversion of unserviceable Kutcha house into Pucca/semi Pucca by members of Scheduled Castes/Scheduled Tribes, freed bonded laborers and also non-SC/ST rural poor below the poverty line by extending them grant-in.

Innovative Stream for Rural Housing and Habitat Development
The objectives of the Innovative Stream for Rural Housing and Habitat Development is to promote/propagate innovative and proven housing technologies, designs and material in the rural areas.

Samagra Awaas Yojana
The basic objective of the Samagra Awaas Yojana (SAY) is to improve the quality of life of the people and overall habitat in the rural areas.

Rural Building Centre
The objective behind the setting up of Rural Building Centers is transfer of technology and dissemination of information on cost effective and environmental friendly technologies, materials. Methods, etc. and skill up-gradation through training and production of cost effective building components.

National Mission for Rural Housing
National Mission for Rural Housing has been set by the Ministry of Rural Development to enable the induction of science and technology inputs on a continuous basis, in the sector. It also seeks to provide convergence of technology habitat and energy-related issues in order to provide affordable shelter for all in rural areas within a specified time frame, and through community

National Mission for Rural Housing
National Mission for Rural Housing has been set by the Ministry of Rural Development to enable the induction of science and technology inputs on a continuous basis, in the sector. It also seeks to provide convergence of technology habitat and energy-related issues in order to provide affordable shelter for all in rural areas within a specified time frame, and through community and attitudes of rural development officials and non-officials through organizing training courses, workshops and seminars.

Accelerated Rural Water Supply Programme (ARWSP)
Rural water supply being a State subject status takes up projects and schemes from their own resources. However, Government of India has been supplementing State efforts in providing safe drinking water in rural areas. The National agenda for Governance of the Government envisages provision for safe drinking water to all rural habitations in the country by 2004.

Council for Advancement of Peoples Action and Rural Technology

The council for Advancement of people's Action and Rural Technology (CAPART), a registered society under aegis of the Department of Rural Development, strives to encourage, promote and assist voluntary action in implementation of peojects for the enhancement of rural prosperity. It strengthens and promotes voluntary efforts in rural development with the focus on injecting new technological inputs. It also acts as a catalyst for development of technology appropriate for rural areas. It strives to promote, plan, undertake, develop, maintain and support projects/schemes aimed at all round development, creation of employment opportunities, promotion of self-reliance, generation of awareness, organization and improvement in the quality of life of the people in rural areas through voluntary action. Drought Prone Areas Programme

The Land Reforms Programme strives to fulfill all the principles of the national land reforms policy which consist of abolition of intermediary tenures tenancy reforms, ceiling on agricultural holdings and distribution of surplus land, consolidation of agricultural holdings, computerization of land records and strengthening of revenue administration and updating of land records.

Computerization of land records facilitates easy maintenance and updating of the changes which occurs in the land data base and provides for comprehensive scrutiny to make the land records tamper-proof. Its objectives include providing the required support for implementation of development programmes for which data about distribution of land holding is vital. It also includes preparation of annual set of records thereby producing documents for recording details. Land holders can get updates copy of Record of Right (ROR) quickly and at cheaper rates.

Sampoorna Grameen Rozgar Yojana

Pursuant to the announcement made by the Hon'ble Prime Minister in this Independence Day speech, a new Centrally Sponsored Scheme, namely, Sampoorna Grameen Rozgar Yojana (SGRY) was launched on 25th September, 2001 by merging the on-going schemes of EAS and the JGSY.

The objectives of the programme is to provide additional wage employment in the rural areas as also food security alongside the creation of durable community, social and economic infrastructure in the rural areas.

Swarnjayanthi Gram Swarozgar Yojana

The objective of Swarnjayanti Gram Swarozgar Yojana (SGSY) is to bring the assisted poor families (Swarozgaris) above the poverty line by organizing them into Self Help Groups (SHGS) through the process of social mobilization their training and capacity building and provision of income generating assets through a mix of Bank credit and Government subsidy. The programme aims at establishing a large number of micro-enterprises in the rural areas, building upon the potential of the rural poor.

Role of NGOs in Rural Development

Ngo's is a non governmental organization that measures the society crisis and chaos. It involves various activities that ensure growth and development in a society at large through various aid and sponsorship programmes. Ngo's provides a better society and create humanism in a world.

Traditionally, the non-government sector has played a subdued role in the context of deprivation and poverty of adivasis and dalis. NGOs have kept away from addressing larger social and political factors that underscore the forces of deprivation. They have been active in areas where the market would not and the state failed to reach-especially in relief and welfare functions.

This does not mean that their role has remained static over years. However, NGO's greater limitation has been in confining their vision to gap-filling roles-complementing, even substituting roles which ideally should have been the state's. thus in a way the locus standing of NGOs in this context arises out of the state's failure to fulfill its responsibilities. Over years, NGOs have moved away from being mere delivery agents of various services to undertaking training capacity building and facilitating roles. Empowering communities became the key issue in their work during the last decade or so. This empowerment is being manifested in processes that involve target communities in more roles than that of a . beneficiary, in institutional mechanisms at the lowest level to consolidate and expand on the results of combined action. Tracking the trajectory of the growth of NGOs it is only over the past two decades that they have been gaining visibility and recognition in development processes. Over this period they have been playing various roles a few of which as follows-

The Role in Improving the Quality of Life Rural Communities:

NGOs play a vital role in demonstrating interventions towards improving the quality of life of rural communities. Through conscientisation, awareness generation and capacity development processes, they attempt to break the cycle of deprivation and poverty to enable rural poor to assert their rights and lead a

dignified quality of life. While quality of life is an esoteric concept, certain elements of it can be captured by indicators of qualitative and quantitative improvement in employment opportunities and income levels; access to schooling and higher education access to health services and hygienic living conditions-good housing, piped water supply, electricity and better communication facilities etc.

Today the poor in rural areas have to make a quantum leap to be considered at par with citizens of urban areas. An are where is a crying to improve living conditions in village is disaster proof housing. Gram Vikas experience in housing for the rural poor over the past decade is that even the poor will pay to build good houses. We facilitate poor people to access loans from banks and technical support to build their houses. A 45 Sq.m. house costing Rs. 45000 using cost effective technologies. We have covered over 3000 families under housing of which over 60% are adivasis. For them this is a more cost effective than waiting for government to sanction a housing subsidy of which there are percentages deducted at all levels, the contractor cheats them with poor quality construction, and above all till they get the government sanction they continue to incur regular costs of repair and maintenance of their traditional houses, which are vulnerable to fires, storms and other disasters.

Ministry of Human Resources Development (MHRD):
MHRD is an Indian government ministry, (created on 26th September, 1985, through 174th amendment to the government of India)allocation of business(rule 1961) responsible for the development of human resources. The ministry is divided into two department: the Department of School Education and Literacy, which deals with primary education an literacy, and the Department of Higher Education, which deals with secondary and post-secondary education.

The Ministry of Human Resources Development is headed by a minister of cabinet rank as a member of the Council of Ministers. The current Minister of Human Resource Development is Kapil Sibal. The minister is assisted by two Ministers of state, one for each department: Ali Ashraf Fatmi (Minister to State for School Education and Literacy) and Daggubati Purandeswari (Minister of State for Higher Education).

CONCLUSION
The above discussion is cleared that there are various HRD practices are useful for the development of human resources such practices are applied in the organization development for fulfilling the goals of the organization only. On the other side government tries to develop rural people by applying various developmental programmes. We realized that all developmental programmes are for the development of rural area there is need to think on the subject of individual development. So government should made attention towards HRD practices and should use it for the development of the rural people. Ministry of Human Resources Development focused only on education it should be focused on other HRD practices also which are useful for the total development of every individual. NGOs are also involved in various rural developmental programmes though these organizations also focused on development of rural areas employment opportunities, education, good housing etc. these organizations should also be focused on the HRD practices for the real development of rural areas.

REFERENCES
1] A Monappa & M. Saiyadain. Personnel management (2 ed) Tata MCGraw-Hill-Publishing: New Delhi.

2] David A. Decenzo & Stephen P. Robbins. Personnel Human Resource Management. (3 ed). Prentice Hall of India: New Delhi.

3] Gary Dessler. Human Resource Management. (9 ed). Prentice Hall of India: New Delhi.

4] Edwin B. Flippo. Personnel Management. (6 ed). McGrew-Hill_book co.: international edition, management series.

5] Biswjeet Pattanayak. Human Resouce Management. Prentice Hall of india: New Delhi.

A STUDY OF OPPORTUNITIES AND CHALLENGES FACED BY CUSTOMERS TOWARDS MOBILE BANKING APPS WITH RESPECT TO THANE REGION

Meenakshi Arya[1] and Dr. Rashmi M. Agnihotri[2]
[1]Assistant Professor, Narsee Monjee College of Commerce and Economics
[2]HOD of Commerce Department, K.G. Joshi College of Arts and N.G. Bedekar College of Commerce

ABSTRACT

Mobile banking applications are increasingly becoming more popular. It has transformed the way customers interact with banks or financial institutions, providing convenience and accessibility at their fingertips. This study delves to examine the opportunities and challenges faced by customers in adopting and using mobile banking apps with respect to Thane region. Through a mixed-method approach, including surveys and interviews, we tried to study the benefits perceived by customers, such as enhanced convenience and financial services. At the same time, we tried to examine the challenges faced, including security and privacy concerns, technical issues, and the need for increased awareness and education. The findings of this research elucidate critical areas for improvement to enhance customer satisfaction, trust, and the overall success of mobile banking apps.

Keywords: Mobile banking apps, customer adoption, effectiveness, challenges, security, privacy, trust, customer satisfaction, financial services.

INTRODUCTION

In the words of S. Balachandran, mobile banking is defined as "the provision of banking services through mobile telecommunication devices. The scope of existing services may include facilities to conduct bank and stock market transactions, to manage accounts and to retrieve customized information."

In the words of Dr. Neeraj Pahuja, mobile banking refers to "a banking process that allows financial institutions to offer a wide array of financial services to mobile device users, enabling them to conduct various transactions and access account information in a secure and user-friendly manner."

The term "mobile banking" refers to the easy access and management of one's financial services that can be accomplished through the use of mobile devices such as smartphones and tablets. Users are able to undertake a variety of banking tasks without having to physically visit a branch or utilise a desktop computer thanks to this technology. Customers of financial institutions that offer mobile banking apps are able to conduct secure account balance checks, view transaction histories, move funds between accounts, pay bills, deposit checks through remote check capture, and even begin investing operations. Mobile banking has become a popular and effective way for individuals to keep connected to their accounts while they are on the road. This is due in large part to the widespread availability of mobile devices as well as the growing sophistication of security measures.

The primary benefits that come with mobile banking are the ease of use and portability it provides. As long as they have access to the internet, users are able to carry out financial activities whenever and wherever they choose. Because of this, there is no longer a requirement to adhere to the standard banking hours or travel to physical locations. In addition, mobile banking apps frequently include cutting-edge safety measures, such as biometric verification (fingerprint or face recognition) and two-factor authentication, to guarantee the protection of sensitive financial information. It seems expected that mobile banking will play an increasingly vital part in how individuals manage their financial lives as technology continues to advance.

Opportunities of Mobile Banking:

In the Thane region, as in many other parts of the country and the world, mobile banking presents a number of opportunities. As a part of the Mumbai Metropolitan Region (MMR), the city of Thane is well-known for the tremendous urbanisation and population growth that have occurred there. The following are some of the possibilities available to customers of mobile banking in the Thane region:

1. **Effortless Accessibility and Convenience:** Mobile banking gives people of Thane, a bustling city with a substantial population, the convenience of accessing financial services from the cosiness of their own homes or while they are out and about. This is especially helpful when taking into consideration the traffic congestion that is common in urban areas, which makes going to a bank branch in person a time-consuming endeavour.

2. **Electronic Commerce and Payment of Bills:** Bill payments and online shopping can be made more convenient for inhabitants of Thane who use mobile banking. This can be especially helpful in crowded

cities where people frequently have little time to manage their payments and purchase in traditional businesses because of the city's hectic pace.

3. **Contactless Payments and Digital Wallets:** Because of the continued emphasis placed on digital payment methods and the growing demand for hygienic payment choices in the post-pandemic world, the use of digital wallets and contactless payments has the potential to gain popularity in Thane.

4. **Personalized Financial Services:** Mobile banking apps have the ability to provide individualized financial services to customers depending on the users' spending patterns and preferences. This improves the user's overall banking experience and helps build customer loyalty.

5. **Integration with Local companies:** Mobile banking may work with local companies in Thane to provide customers with unique offers, discounts, and loyalty programmes. This would encourage more individuals to utilize mobile banking platforms for their financial activities.

6. **Alerts and Notifications in Real Time:** Real-time alerts and notifications are useful for the fast-paced lifestyle of the Thane region since they keep users informed about account activities, transactions, and upcoming bills.

7. **Precautions Regarding Security:** Building trust among users of mobile banking apps can be accomplished by the incorporation of stringent security measures, which will protect the users' sensitive information as well as their financial activities.

In general, the potential for mobile banking in the Thane region are closely associated with the expanding urban scene and the increased reliance on technology for day-to-day tasks. This is true across the board. When these prospects are taken advantage of, mobile banking services have the potential to become an indispensable component of the citizens of Thane's financial lives.

Challenges of Mobile Banking:
Mobile banking comes with its own unique set of difficulties, despite the fact that it presents a number of advantages. These difficulties might have an effect on clients as well as on financial institutions. The following is a list of some of the most significant difficulties related with mobile banking:

1. **Concerns Regarding Security:** When it comes to mobile banking, one of the most important challenges is making sure that sensitive financial data and transactions are kept safe. Hacking, malware, and phishing are all types of assaults that can be carried out on mobile devices. These assaults can result in unauthorised access to accounts, theft of identity, and financial fraud if the appropriate security measures are not taken.

2. **Data Privacy:** Concerns concerning data privacy are raised when mobile banking apps are used to capture and store users' personal and financial information. Customers are understandably concerned about the ways in which their personal information may be used, disclosed, and safeguarded by financial institutions, particularly in light of the growing frequency of data breaches and inappropriate uses of personal information.

3. **User authentication:** Even though two-factor authentication and biometric authentication both contribute to a higher level of security, using them can be difficult for some users. Some consumers may find it difficult to manage various authentication methods, and there is a possibility that biometric systems will fail to reliably recognise people.

4. **Compatibility of Devices and Other Technical Concerns**: Applications for mobile banking need to be adaptable to a variety of platforms and hardware configurations. Because there are so many distinct combinations of hardware and software, it can be difficult to provide users of different devices with an experience that is consistent and free of bugs across all of their devices.

5. **Digital Literacy:** Because not all users have the same level of expertise with technology, navigating and using mobile banking apps may be challenging for certain users. Because of the digital divide, many subgroups of the population, notably elderly people, may not be able to reap the full benefits of mobile banking services.

6. **Infrastructure and Connectivity:** Mobile banking relies heavily on having a stable connection to the internet in order to perform properly. Customers may experience difficulties accessing their accounts and completing transactions in regions with poor network coverage or slow internet connections. These issues may arise because of the combination of these factors.

7. **Errors in Transactions:** Transactions made through mobile banking have the potential to be flawed owing to typographical errors or technical issues. Customers' trust in the banking system may suffer as a result of the inconvenience and frustration caused by the resolution of these errors, which can take a long time.

8. **Scams and Fraudsters:** Users of mobile banking are vulnerable to a number of different types of fraud, including phishing messages and fake apps that are meant to steal personal information. It can be difficult to successfully educate consumers about these dangers and assist them in distinguishing between authentic and fraudulent forms of communication.

9. **Regulation and Compliance Concerns:** When it comes to the provision of mobile banking services, financial institutions are required to adhere to stringent rules and compliance standards. Keeping up with these rules and ensuring that mobile banking practises are in line with legal standards can be a challenging task.

10. **Support for Customers:** It can be difficult to provide efficient customer support for difficulties relating to mobile banking. User questions must be answered, users must be guided through troubleshooting, and concerns about security must be addressed using remote assistance, which must be easily available.

11. **A Decrease in One's Capacity for Personal Interaction**: There is a possibility that traditional bank branches will lose their ability to provide a personal touch and meaningful engagement with customers as a result of the rise of digital banking. There is a possibility that some clients like face-to-face contacts for complicated business dealings or for finding solutions to problems.

12. **Dependence on Technology:** Mobile banking generates a dependence on technology, and any system failures, outages, or technical issues might impair consumers' ability to access their accounts and manage their funds. Mobile banking produces a dependency on technology.

In order to effectively address these difficulties, a mix of robust technology, consumer education, cybersecurity safeguards, regulatory compliance, and ongoing adaptability to the ever-changing demands and preferences of customers is required.

LITERATURE REVIEW:

Hamid, K., Iqbal, M. W., Muhammad, H. A. B., Fuzail, Z., Ghafoor, Z. T., & Ahmad, S. (2022) examined the degree of usability issues and the experience of mobile banking users. The survey method with a sample size of 240 participants done. The study measures the usability of various mobile banking apps in respect to effectiveness, efficiency, trustfulness, learnability, performance and satisfaction. For analysis statistical, mathematical and computation techniques are used. Authors concluded stating that it is important to consider user satisfaction and trust in MBAPS for further development of mobile banking apps interface.

Isa, M. A. M., Sabri, M. Z. M., Nasrul, F., Noh, M. K. A., Zaharum, Z., & Latif, R. A. (2020) investigated the factors that influences the adoption of mobile banking application by muslim senior citizen (MSC). The study collected primary data from 150 respondents using 5-point Likert Scale Questionnaire. Further the study tested the factors such as perceived credibility (PC), perceived risk (PR), perceived ease of use (PEU) and perceived usefulness (PU). Authors stated that there is lack of intention to adopt MBA amongst the MSC's due to insufficient knowledge and exposure related to application.

Kalra, A., & Singh, A. (2019) studied the comparative analysis of mobile banking application of public and private banks for knowing the customer and perception and efficiency of the mobile banking services. The study is done on the basis of primary data through a structured questionnaire with sample size collected from 51 respondents. The study concluded that factors such as security, cost saving and time saving are given more importance by the users of both public and private banks.

Singh, R., & Singh, V. (2017) analysed the major factors and issues those serves in adoption and obstruction of the global mobile banking. Further the study states security, lack of awareness of customers, authentication process issue, virus and malware attacks as some of issue and challenges for mobile banking. The author concluded the study stating that users are adopting the technology to reduce their efforts and time by using mobile banking with a wireless connection from any location.

Hayikader, S., Hadi, F. N., & Ibrahim, J. (2016) examined issues on architecture and various security measures of mobile banking app. The study showed that the usage of mobile banking app has increased from 2005 to 2014 with Indonesia at top followed by China and Thailand. Internet banking security system introduced Intrusion Detection System (IDS) for safety on online transaction processing. The Author concluded stating that mobile banking app security system need to be enhanced and support future technologies.

He, W., Tian, X., & Shen, J. (2015) studied and employed blog mining as a research method to analyse discussion on security of mobile banking application. Blog mining is a research method to find out various blogs that discusses about the security of mobile banking apps. In this paper mainly google blog search engine is used to search for blogs. Further the author analysed security risks, best practices and future security trends so as to help banks and consumers to minimize the risk related to mobile banking applications.

RESEARCH METHODOLOGY

Objectives of the Study:

1. To determine the factors that influences for the adoption of mobile banking apps amongst bank customers.

2. To understand the issues and challenges faced by bank customers while using mobile banking apps.

DATA ANALYSIS:

Demographic Factors of the Study:

Sr.no	Demographic Factor	Category	Frequency	Percent
1	Gender	Male	98	61.3
		Female	62	38.8
2	Age group	Below 25 Years	98	61.3
		26 to 35 Years	27	16.9
		36 to 45 Years	9	5.6
		46 to 60 Years	21	13.1
		More than 60 Years	5	3.1
3	Qualification	Undergraduate	12	7.5
		Graduate	88	55.0
		Post Graduate	58	36.3
		Professional	2	1.3

The data provided offers insights into the distribution of individuals based on their gender, age group, and educational qualifications. Among the surveyed individuals, 98 identify as male, while 62 identify as female. In terms of age groups, the majority, comprising 98 individuals, fall below 25 years, followed by 27 individuals aged between 26 to 35 years, 9 individuals aged 36 to 45 years, 21 individuals aged 46 to 60 years, and 5 individuals above 60 years of age. Regarding educational qualifications, 12 individuals have completed their undergraduate studies, 88 hold graduate degrees, 58 have attained postgraduate qualifications, and 2 have professional qualifications. These statistics provide valuable demographic information, offering a glimpse into the gender, age, and educational diversity within the surveyed group.

Test of Relatability: This test is used for validation of Likert scale used in the questionnaire.

To validate the scale in this study Cronbach Alpha test is applied. Test is applied for all 160 respondents. Following table represents the results of the test:

Sr.no	Variable Name	Crobach's Alpha Value	No.of Question	Accepted/Rejected
1	Opportunities	0.911	8	Accepted
2	Challenges	0.788	4	Accepted

Above results indicate that all the Cronbach Alpha values for all the two variables is more than the required value of 0.700. Hence the test is accepted. Conclusion is **scale is reliable and accepted.**

Objective-1: To determine the factors that influences for the adoption of mobile banking apps amongst bank customers.

Null Hypothesis H_{01}: There is no significant influencing factor for the adoption of mobile banking apps amongst bank customers.

Alternate Hypothesis H_{011}: There is a significant influencing factor for the adoption of mobile banking apps amongst bank customers.

To understand the above null hypothesis Friedman's test is applied and results are as follows:

Test Statistics	
N	160
Chi-Square	118.840

df	7
p-value	.000
a. Friedman Test	

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, Friedman's test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is rejected.

Conclusion: There is a significant influencing factor for the adoption of mobile banking apps amongst bank customers.

Findings: is that the rank table for opportunities is classified and presented below:

	Ranks	
Question no	Statement	Mean Rank
1	Mobile banking App is most convenient for banking operations	4.04
2	Mobile banking App is reliable and safe for banking transactions	3.50
3	Most of the banking transaction can be easily executed through mobile banking App	4.22
4	Mobile baking App save and time and cost as compare to conventional banking	4.58
5	Mobile banking App is eco-friendly because use of paper is significantly reduced	5.07
6	Mobile banking is very useful for quick transactions.	5.02
7	Mobile banking is useful since it available round the clock	4.99
8	It is useful because it proved most updated information	4.57

The data reveals that respondents highly value the convenience of mobile banking apps, as evidenced by the average rating of 4.04. This suggests that users find these apps to be user-friendly and easily accessible for their banking needs. However, there is room for improvement in terms of the perceived reliability and safety of transactions, with an average rating of 3.50. This indicates that while mobile banking apps are convenient, there might be lingering concerns about the security aspects of conducting transactions through them. The survey participants strongly believe in the efficiency of mobile banking apps for executing various banking transactions, as indicated by the high rating of 4.22. This suggests that users perceive these apps as effective tools for managing their financial tasks.

One of the most notable aspects highlighted by the data is the strong perception that mobile banking apps save both time and costs compared to conventional banking methods, with a high rating of 4.58. This indicates that respondents recognize the practical benefits of using these apps in terms of efficiency and reduced operational costs. The environmental aspect of mobile banking apps is also highly regarded, as indicated by a notably high rating of 5.07. This suggests that users are keenly aware of the positive impact of these apps on reducing paper usage and contributing to eco-friendliness. Additionally, the data underscores the usefulness of mobile banking apps for quick transactions (rating of 5.02), round-the-clock availability (rating of 4.99), and providing updated information (rating of 4.57). These factors collectively contribute to the overall positive perception of mobile banking apps as valuable tools for modern banking operations. This information is further presented below in the form of bar diagram.
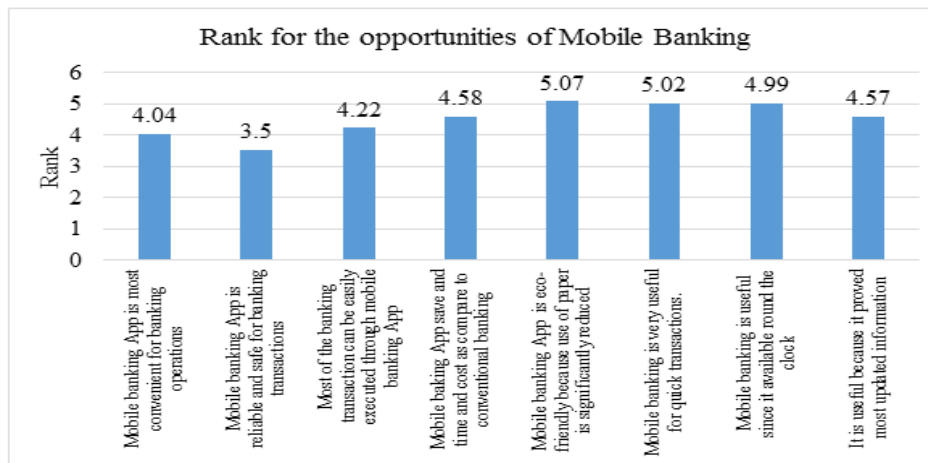
Objective-2: To understand the issues and challenges faced by bank customers while using mobile banking apps.

Null Hypothesis H$_{02}$: There is no significant issues and challenges faced by bank customers while using mobile banking apps.

Alternate Hypothesis H$_{012}$: There is a significant issues and challenges faced by bank customers while using mobile banking apps.

To understand the above null hypothesis Friedman's test is applied and results are as follows:

Test Statistics	
N	160
Chi-Square	60.063
df	3
p-value	.000
a. Friedman Test	

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, Friedman's test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is rejected.

Conclusion: There is a significant issues and challenges faced by bank customers while using mobile banking apps.

Findings: is that the rank table for Challenges is classified and presented below:

Ranks		
Question No.	Statement	Mean Rank
1	Lack of technological knowledge	2.13
2	Lack of knowledge of operations of mobile banking	2.33
3	Availability of internet connectivity	2.73
4	Fear of Fraud or wrong transaction	2.81

Among the factors, "Lack of technological knowledge" receives a rating of 2.13, suggesting that respondents acknowledge a moderate level of uncertainty or discomfort with the technological aspects of mobile banking. This implies that some individuals might feel less confident about using these applications due to their unfamiliarity with the underlying technology.

Similarly, the statement "Lack of knowledge of operations of mobile banking" receives a rating of 2.33, indicating that respondents have a slightly higher level of concern about their familiarity with the functionalities and processes involved in mobile banking applications. This points to a need for clearer education or user-friendly interfaces to help users navigate the operations effectively.

The availability of a stable internet connection emerges as a notable factor, with a rating of 2.73. This suggests that respondents recognize that internet connectivity plays a role in the usability of mobile banking apps. This information is further presented below in the form of Bar Diagram.
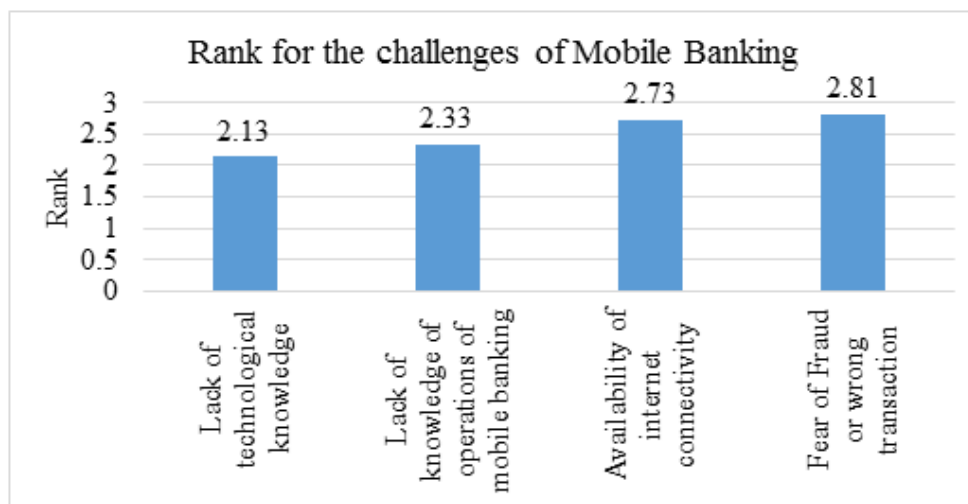
Findings and Conclusions: The conclusion is drawn based on primary data collected from 160 respondents—the concentration of the research is to study the opportunities for customers to use mobile banking Apps. The results indicate that opportunities are significantly better for using mobile banking Apps. The top 3 opportunities

are 'It is eco-friendly because paper use is significantly reduced,' 'It is very useful for quick transactions,' and 'It is useful since it is available 24x7'. The analysis of data also identified the challenges of using mobile banking Apps. The significant challenge that the consumer is fear of fraud or wrong transactions. Some customers, particularly female respondents, face challenges such as a lack of technological knowledge. Connectivity is also a challenge when customers are in remote rural areas.

REFERENCES

1. Hamid, K., Waseem Iqbal, M., Abdul, H., Muhammad, B., Ahmad, S., Fuzail, Z., & Tabassum Ghafoor, Z. (2022). Usability evaluation View project Usability Evaluation of Mobile Banking Applications in Digital Business as Emerging Economy. IJCSNS International Journal of Computer Science and Network Security, 22(2), 250. https://doi.org/10.22937/IJCSNS.2022.22.2.32

2. Isa, M. A., Zulhelmi, M., Sabri, M., Nasrul, F., Khairul, M., Noh, A., Zaharum, Z., & Latif, R. A. (2020). The Adoption of Mobile Banking Application among Muslim Senior Citizens in Selangor , Malaysia. Asian Journal of Research in Business and Management, 2(2), 43–51. https://myjms.mohe.gov.my/index.php/ajrbm/article/view/9647

3. P, D. R. (2019). Digital Banking Challenges and Opportunities in India. EPRA International Journal of Economic and Business Review, December, 20–23. https://doi.org/10.36713/epra2985

4. Raghuvir Singh & Vijendra Singh. (2017). "Issues and Challenges of Mobile Banking Application in Rajasthan." International Journal of Human Resource Management and Research, 7(2), 21–26. http://www.tjprc.org/view-archives.php

5. Hayikader, S., Hadi, F. N. H. A., & Ibrahim, J. (2016). Issues and security measures of mobile banking apps. International Journal of Scientific and Research Publications, 6(1), 36–41. http://irep.iium.edu.my/53522/

6. Asfaw, H. A. (2015). Financial Inclusion through Mobile Banking: Challenges and Prospects. 2015 Ijsrst |, 4(1), 232–238. www.ijsrst.com

7. He, W., Tian, X., & Shen, J. (2015). Examining security risks of mobile banking applications through blog mining. CEUR Workshop Proceedings, 1353(January 2015), 103–108.

8. Manikyam, D. K. R. (2014). Indian Banking Sector – Challenges and Opportunities. IOSR Journal of Business and Management, 16(2), 52–61. https://doi.org/10.9790/487x-16215261

9. Mlachila, M., Dykes, D., Zajc, S., & Aithnard, P.-H. (2013). Banking in Sub-Saharan Africa challenges and opportunities. European Investment Bank, 1–118. https://elibrary.imf.org/view/journals/087/2013/004/087.2013.issue-004-en.xml

10. Bhuiyan, S. R. (2013). Implementation of Mobile Banking in Bangladesh: Opportunities and Challenges. IOSR Journal of Electronics and Communication Engineering, 7(5), 53–58. https://doi.org/10.9790/2834-0755358

11. Jamaluddin, N. (2013). E-Banking: Challenges and Opportunities in India. 1–15.

12. Malviya, S. (2013). A comparative study of mobile banking of public and private sector banks in Indore. August.

13. Tiwary, B. K. (2012). Indian Banking Industry: Competition and Opportunities. *International Journal of Scientific Research*, 1(3), 65–67. https://doi.org/10.15373/22778179/aug2012/22

14. Goyal, V., U.S.Pandey, & Batra, S. (2012). Mobile Banking in India: Practices, Challenges and Security Issues. *International Journal of Advanced Trends in Computer Science and Engineering*, 1(2), 56–66. http://warse.org/pdfs/ijatcse03122012.pdf

15. Kamath, K. V., Kohli, S. S., Shenoy, P. S., Kumar, R., Nayak, R. M., Kuppuswamy, P. T., & Ravichandran, N. (2003). Indian banking sector: Challenges and opportunities. *Vikalpa*, 28(3), 83–99. https://doi.org/10.1177/0256090920030308

BIG DATA-DRIVEN STRATEGIES FOR OPTIMIZING URBAN TRAFFIC MANAGEMENT: A COMPREHENSIVE REVIEW AND ANALYSIS

Kalpo Mukhopadhyay[1] and Sunita Aryan Jena[2]
[1]MSc. Big Data Analytics, Jai Hind College Mumbai, India
[2]Jai Hind College, Mumbai, India

ABSTRACT

Urban areas globally, including India, with a population exceeding 8 billion, grapple with burgeoning traffic congestion. This paper examines 14 diverse studies leveraging technologies like Big Data, IoT, and Machine Learning to tackle this issue. Big Data, sourced from traffic sensors, social media, and IoT devices, offers critical insights. Papers emphasize IoT devices' significance in gathering traffic data, employing algorithms like KNN and Random Forest for traffic predictions. Fog processing and cloud-based analysis aid real-time traffic control, potentially easing congestion. These systems, employing Apache Storm, Hadoop, and GPS, analyse massive traffic datasets to forecast congestion and optimize signals. While promising, these studies flag accuracy challenges and costs. They highlight potential safety improvements by predicting accidents. In sum, they propose robust frameworks for traffic management in urban settings like Mumbai, India, indicating promising strides in reducing congestion and fortifying transportation infrastructure.

Keywords: Traffic Management, Big Data Analytics, Urban Transportation, Traffic Prediction, Intelligent Traffic Systems

INTRODUCTION

The global population has increased rapidly from an estimated 2.5 billion in 1950 to an astonishing 8 billion in mid-November 2022. It is predicted that the global population will increase by almost 2 billion by 2050. Notably, India is currently the most populous country worldwide, with a population of 1,436,233,062 as of Tuesday, January 30, 2024. This enormous population gives rise to many challenges. One of them is the need for improved traffic management. Rule violations, negligence and a multitude of other factors contribute to approximately 5 lakh road accidents and over 1.5 lakh fatalities annually in India.

The promise of better opportunities in urban areas attract a large part of this population to them increasing their population density. This high population density not only highlights the problems caused by high population but also give rise to new ones. Indian cities like Bengaluru, Pune, New Delhi, and Mumbai rank prominently in the TomTom Traffic index out of 375 cities worldwide despite being the only four Indian cities to be included in it.

In the backdrop of this population explosion, we find ourselves in an era characterized by the continuous generation of large volumes of data. Utilizing this data to make better decisions holds the key in improving all aspects of our life. Harnessing this data for enhanced traffic management not only addresses the pressing challenges of road safety but also paves the way for smart cities, optimizes logistics and a lot of other advantages. As we navigate the interplay between population dynamics, traffic woes, and the data-rich landscape, this research aims to explore methods to more effective traffic management.

Rank by filter	World rank ▼	City	Average travel time per 10 km ▼
1	6	Bengaluru 🇮🇳 India	28 min 10 s
2	7	Pune 🇮🇳 India	27 min 50 s
3	44	New Delhi 🇮🇳 India	21 min 40 s
4	54	Mumbai 🇮🇳 India	21 min 20 s

Table 1: City Center Rankings

Rank by filter	World rank ▼	City	Average travel time per 10 km ▼
1	3	**Bengaluru** 🇮🇳 India	23 min 50 s
2	7	**Mumbai** 🇮🇳 India	22 min 30 s
3	9	**Pune** 🇮🇳 India	22 min 10 s
4	37	**New Delhi** 🇮🇳 India	18 min 40 s

Table 2: Metro Area Rankings

Big Data and Concepts in Traffic Management Data Pipeline

Big Data in Traffic Management:
Big Data refers to large volumes of data that exceed the processing capacity of conventional database systems. In traffic management, Big Data encompasses vast amounts of information gathered from various sources, such as traffic sensors, GPS devices, social media, and CCTV cameras. It is characterized by the 3Vs:

- **Volume:** Enormous amounts of data are generated continuously from traffic-related sources like Bluetooth sensors, cameras, and other IoT devices, contributing to the Big Data landscape in traffic management.

- **Velocity:** Traffic-related data streams in rapidly, requiring real-time or near-real-time processing to derive actionable insights promptly.

- **Variety:** Data from diverse sources like traffic sensors, social media, weather stations, and road cameras come in various formats (structured and unstructured), making data integration and analysis complex.

Sources of Traffic Big Data:
- **Traffic Sensors:** These include Bluetooth traffic scanners, RFID systems, loop detectors, and GPS devices embedded in vehicles. They capture data such as vehicle counts, speed, and travel times.

- **Social Media:** Platforms like Twitter and Facebook provide valuable insights through user generated content, expressing opinions, complaints, and real-time updates on traffic conditions.

- **Cameras and IoT Devices:** CCTV cameras, drones, and other IoT devices capture visual data, providing information on road conditions, accidents, and congestion.

- **Mobile Applications:** Apps like Google Maps and Waze collect user-generated data on traffic conditions and routing preferences.

Stages in Data Pipeline of Traffic Management:

1. Data Collection and Ingestion:
The stages of collecting data from various sources and ingesting it into a central repository can be considered together. This includes sensor data, GPS data, and other inputs.

2. Data Processing and Storage:
After data is collected and ingested, it undergoes cleaning, preprocessing, and transformation before being stored in a database or data warehouse. Hive, Apache Storm, IBM Big Data Technology (Infosphere Big Insights, Infosphere Streams, Infosphere Warehouse) etc can be used for this stage.

3. Data Analysis and Visualization:
Once data is stored, the analysis of traffic patterns, anomaly detection, and predictive modelling can be closely tied to the creation of visualizations and dashboards for monitoring and reporting. Visualizations can be created using tools like MS Excel, Power BI, ArcGIS etc.

4. Decision Support and Integration with Control Systems:

The stages involving decision support, both automated and manual, and the integration with control systems like traffic signal control and variable message signs are interconnected. These stages work together to implement real-time responses to traffic conditions.

5. Continuous Improvement and Feedback:

The final stage involving the feedback loop for continuous improvement is a continuous process that can be considered as part of an ongoing cycle across all stages.

Big Data plays a crucial role in traffic management by enabling the collection, processing, and analysis of diverse data sources to enhance traffic flow, detect incidents, and optimize traffic control strategies. The data pipeline in traffic management encompasses stages from data acquisition to model deployment and monitoring, emphasizing the importance of preprocessing, integration, and analysis for effective decision-making. India, with its rapidly growing urbanization and traffic challenges, stands to benefit significantly from leveraging Big Data in traffic management for improved transportation systems and infrastructure planning.

Traffic Management Initiatives in India

Due its high population, India has to overcome many challenges to achieve efficient and safe traffic management. Rule violations, negligence and a multitude of other reasons lead to approximately 5 lakh road accidents and over 1.5 lakh deaths every year in India.

The governments of various states in India have taken steps to mitigate and ultimately solve these problems. Some of the key initiatives of the state governments are listed below.

AI Based Traffic Management System: The State Government of Kerala has planned to deploy AI based cameras on critical roads to enforce traffic rules effectively through automated violation assessment, leading to immediate fines and centralized data storage. They aim to reduce traffic violations by half by 2024.

Intelligent Traffic Management System (ITMS): Delhi Police has deployed an Intelligent Traffic Management System which includes 3D Radar based Red Light Violation Detection Camera (RLVD) at 24 junctions across Delhi to monitor traffic signal violations, gantry mounted radar-based system to detect over speeding and up to 8000 high resolution cameras with sensor based real time traffic volume count capabilities. An IP based public address system has also been added to traffic signals to communicate with the drivers.

IRaste: This project has been implemented in Telangana and Nagpur with the aim of increasing road safety by installing vehicles with collision avoidance technology to reduce approximately 60% accidents and near misses. It also includes the use of sensors to identify the dynamic risk of the road network to prevent and repair black spots, which are accident prone areas. The testing of this project is being conducted on a small number of vehicles owned by the government bodies.

AI Based Systems in Karnataka: The Karnataka State Road Transport Corporation (KSRTC) has floated tenders for Collision Warning System (CWS) and Driver Drowsiness System (DDS) based on AI for 1044 buses.

Advancements in Traffic Analysis and Management Through Big Data Integration

The research paper by (Soleimany, Farhang, & Sangar, 2023) introduces an intelligent control method for urban traffic utilizing fog processing in the Internet of Things (IoT) environment based on cloud data processing of big data. The proposed system aims to address the shortcomings of current traffic light control methods, such as time and fuel wastage, increased air pollution, and inefficiency in adapting to dynamic traffic conditions. The method involves data collection through IoT, preprocessing, and extraction of effective fields in the cloud processing section using an improved k-nearest neighbour (KNN) machine learning algorithm. The fog processing layer utilizes the predicted traffic information to make real-time traffic control decisions, aiming to minimize waiting times for vehicles and pedestrians. The use of fog processing, IoT, and big data concepts, along with the introduction of the GW-KNN algorithm, is highlighted in the paper. The authors present simulation results comparing their proposed method with two existing approaches, demonstrating superior performance in terms of absolute mean error percentage, traffic forecast error percentage, and average waiting time for vehicles. The approach appears promising, leveraging cloud and fog processing to enhance the efficiency of urban traffic control systems. However, a more in-depth understanding of the algorithm's implementation and its potential limitations would be beneficial for a comprehensive evaluation. Further clarity on the practical deployment and scalability of the proposed method could strengthen its applicability in real-world scenarios.

The research paper by (Dauletbak & Woo, 2020) provides a comprehensive overview of utilizing Big Data and Machine Learning for the analysis and prediction of traffic patterns in Los Angeles County. The paper employs a dataset obtained from a popular navigation app, incorporating information on traffic incidents reported by users and data collected from users' devices. The authors leverage Hadoop and its ecosystem, specifically Hive, for the storage and processing of large-scale road traffic data. The workflow involves data parsing, cleaning, and visualization using tools such as Excel, Power BI, and ArcGIS. The study offers valuable insights into the traffic landscape, identifying congestion hotspots, peak hours, and key areas affected. Furthermore, the paper delves into long-term traffic prediction using a classification machine learning model on sampled data in Microsoft Azure ML Studio. While the paper demonstrates an effective application of Big Data technologies for traffic analysis, it leaves room for improvement. The unbalanced nature of the dataset, especially in predicting the heaviest traffic jams, poses a challenge. The model's performance evaluation reveals a significant accuracy drop for the lowest traffic jam level, suggesting potential areas for model enhancement. Additionally, the use of synthetic minority oversampling to address imbalance is acknowledged, but its impact on the model's robustness could benefit from further discussion. Despite these considerations, the paper serves as a foundation for future research, encouraging exploration with larger datasets and diverse classification models to enhance the understanding of traffic dynamics.

The research paper by (Tseng, et al., 2018) presents an intricate model, SVM-based real-time highway traffic congestion prediction (SRHTCP), for real-time highway traffic congestion prediction by leveraging big data analytics. The authors utilize Apache Storm, a streaming data processing system, to collect and analyse diverse datasets, including traffic information from the Taiwan Area National Freeway Bureau, weather data from the Central Weather Bureau, and social media data from the Police Broadcasting Service. The proposed SRHTCP model incorporates support vector machines (SVM) for predicting road speeds and fuzzy theory for real-time traffic congestion analysis. The paper claims a significant improvement in prediction accuracy, with a 25.6% enhancement over existing methods. While the technical aspects of the SRHTCP model and the integration of Apache Storm are commendable, a critical analysis raises questions about the generalizability of the findings. The study lacks a thorough exploration of the challenges and limitations associated with the proposed model, and further investigation into the model's performance across varied geographic and traffic conditions would be valuable. Additionally, a more in-depth comparison with alternative prediction models could provide a clearer understanding of SRHTCP's superiority. Nevertheless, the paper serves as a noteworthy contribution to the domain of intelligent transportation systems, showcasing the potential of big data analytics in real-time traffic prediction.

The research paper by (Wang, Wang, & Bao, 2019) introduces a dynamic timing optimization platform for big data intelligent traffic signals to address the challenges posed by increasing car ownership and traffic pressure at intersections. The authors propose a system that utilizes video recognition to capture real-time vehicle data, processed through optimization algorithms for dynamic signal timing. The paper claims a 23% reduction in overall total delay time and a 15% decrease in travel time in the experimental area during peak hours, with off-peak periods showing a 17% reduction in total delay time and a 10% decrease in travel time. The system's reliance on video recognition, deep mining technology, and machine deep learning aims to enhance traffic flow efficiency. While the research seems promising, it lacks a comprehensive discussion on the potential limitations or challenges that may arise in real-world implementation. Additionally, it would be beneficial to have a more detailed explanation of the video recognition method, deep mining technology, and machine deep learning, as these aspects are vital for understanding the system's functionality.

The research paper by (Adoni, et al., 2022) introduces a scalable big data framework for real-time traffic monitoring, emphasizing its application in the intelligent transportation system. The proposed system utilizes existing data from road sensors, including GPS sensors, to analyse traffic flow and traveller behaviour. It aims to enhance road network performance by processing large-scale stream data to detect incidents, crashes, and congestion. The architecture relies on IBM big data technology, specifically Infosphere Big Insights, Infosphere Streams, and Infosphere Warehouse. The paper highlights the system's successful implementation in the public transportation modes of Casablanca, demonstrating significant time savings, extensive data collection from road sensors, and minimal hardware resource consumption. The framework incorporates a three-layered structure: the stream layer for real-time data processing, the data storage layer using Hadoop components, and the analytical layer employing Big Insights tools for traffic prediction and visualization. While the paper provides a comprehensive overview of the proposed system's architecture and its application in Casablanca, the lack of in-depth discussion on challenges faced during implementation and the absence of comparative analysis with existing solutions could limit a thorough understanding. Additionally, a more detailed exploration of the impact on urban mobility, considering diverse factors such as weather conditions and user preferences, could provide a

more holistic view. Overall, the research paper offers valuable insights into the integration of big data technologies for traffic management, but a deeper exploration of challenges and a broader contextualization of urban mobility dynamics would enhance its significance.

The research paper by (Hou, 2018) explores the development of a real-time traffic information system based on big data analysis, employing a vehicle networking end-tube-cloud architecture. The proposed system aims to address the challenges posed by traffic congestion, leveraging intelligent transportation and vehicle networking technologies. The paper introduces key components such as vehicle networking, GPS positioning technology, and vehicle networking big data. The architecture involves the integration of sensors, communication networks, and intelligent management to reduce traffic congestion and enhance overall traffic management. The use of GPS for real-time location, speed, and time information is highlighted, emphasizing its significance in the era of intelligent traffic systems. The research delves into the collection of real-time traffic information through floating cars equipped with GPS and wireless communication. It discusses the necessity of cleaning original traffic data to eliminate abnormal or "dirty data," presenting a specific vehicle GPS data storage format for better analysis. The spatial and temporal characteristics of traffic data are explored, with a proposed dynamic adaptive data repair algorithm demonstrating effectiveness in improving data accuracy. While the paper provides a comprehensive overview of the proposed system, its practical implementation and potential challenges in real-world scenarios are areas that could benefit from further exploration. Additionally, a clearer articulation of the specific benefits and limitations of the proposed system would enhance the understanding of its real-world implications.

The research paper by (Fatholahzade, Akbarizadeh, & Romoozi, 2018) explores the implementation of the Random Forest algorithm for utilizing big data to enhance real-time traffic monitoring and safety on freeways. The paper emphasizes the significance of active traffic management in the context of real-time large data in transportation systems, aiming to improve performance efficiency and traffic safety. The proposed method involves the design of a real-time monitoring system utilizing big data on traffic flow and employs the Random Forest algorithm for classification and analysis. The use of Colored Petri Nets for evaluation adds a modelling aspect to the approach. The paper introduces the architecture of the suggested method, involving embedded sensors on freeways, data collection, and analysis using the Random Forest algorithm. The case study illustrates the application of the method, showcasing the modelling of the freeway, data preparation, and the utilization of the Random Forest algorithm for predicting accidents. While the paper provides a comprehensive approach to leveraging big data and machine learning for traffic management, a clearer discussion on the limitations, challenges, and potential drawbacks of the proposed method could enhance the reader's understanding. Additionally, the practical implications and scalability of the suggested approach in real-world scenarios remain areas for further exploration.

The research paper by (Liu, Zhang, & Hu, 2022) delves into the crucial realm of intelligent traffic flow prediction using a combination of Internet of Things (IoT) and big data. The paper meticulously outlines the challenges faced by major cities in terms of traffic congestion and explores the limitations of traditional traffic flow forecasting methods. The proposed three-tier network architecture model, consisting of the perception layer, network layer, and application layer, along with the integration of cloud computing and edge computing, presents a comprehensive approach to enhance accuracy and efficiency. The application of multiperspective linear discriminant analysis algorithm and the combination of IoT technologies like Fibre Bragg grating sensor, positioning technology, RFID application, and wireless sensor technology contribute to the overall intelligent transportation system. The incorporation of the Kalman-BP combined algorithm for traffic flow prediction is a notable highlight, showing promising results in reducing prediction errors. The analysis of traffic flow characteristics, including spatial, temporal, and random aspects, demonstrates a thorough understanding of the complexities involved. The experimental simulation, involving data analysis, comparison of prediction error values, and algorithm operation speed, provides empirical evidence of the system's efficacy. However, a critical examination suggests a need for further clarification on the specifics of the Kalman-BP algorithm's integration and its impact on real-time traffic prediction. Additionally, while the paper offers valuable insights, a more in-depth exploration of the limitations and potential challenges faced during the experimental simulation would contribute to a more comprehensive understanding. Overall, the research contributes significantly to the domain of intelligent transportation and offers a promising direction for the application of IoT and big data in traffic flow prediction.

The research paper by (Liu Y., 2022) delves into the optimization of intelligent traffic dispatching algorithms in Chinese urban settings using big data on an Internet of Things (IoT) platform. The study addresses prevalent issues such as traffic congestion and prolonged waiting times, proposing a solution grounded in the fusion of big

data technologies. The algorithm involves clustering urban traffic safety big data, establishing a gray distribution model, and fusing various data types, including text, location, picture, audio, and video. Notably, the paper applies video information post fusion to detect traffic flow parameters, enabling the evaluation of urban traffic safety under speed dispersion conditions. The proposed algorithm incorporates a particle swarm optimization approach to calculate optimal dispatching strategies based on drivers' satisfaction with waiting times, particularly during morning and evening peaks. While the study demonstrates promising results in improving urban traffic safety, it is crucial to note that the comprehensibility of the algorithm for practical implementation may pose a challenge. The complexity of the mathematical models, such as the gray distribution model and particle swarm optimization, may hinder accessibility for practitioners without a deep understanding of these techniques. Additionally, the evaluation of the algorithm's performance relies heavily on simulated scenarios, warranting further real-world validation to ascertain its effectiveness in diverse urban environments. Overall, the research presents a sophisticated algorithm with potential implications for traffic safety but may benefit from refining its accessibility and validating its efficacy in real-world applications.

The research paper by (Wang, Qiu, Xiao, Dong, & Wang, 2021) delves into the intricate realm of traffic forecasting and road management using graph neural networks (GNN) and big data. The paper addresses the escalating urban traffic issues in China, proposing a method to select key roads based on GNN, subsequently reducing the workload of urban data analysis and construction costs. The authors employ taxi GPS data from Changchun City, utilizing a parallel processing method to match and analyse the data efficiently. The integration of various features, such as road inherent attributes, road network relationships, POI interest points, graph embeddings, and key road flow characteristics, contributes to constructing a comprehensive road flow prediction model. The paper introduces both full data and sparse data models, with a focus on evaluating the latter's effectiveness in terms of time cost, data cost, and precision cost. Notably, the sparse data model aims to predict road flow with limited data, potentially offering a cost-effective solution for urban planning. However, it is crucial to critically assess the trade-offs between accuracy and resource efficiency in the proposed models. Additionally, the clarity of the paper could be enhanced by providing more detailed explanations of certain methodologies and parameters used in the models.

The research paper by (Sun, Bai, Lin, Jiao, & Lu, 2020) proposes an optimization model for traffic sensor layout considering the influence of traffic big data. The model addresses key factors such as system cost, multisource data sharing, data demand, sensor failures, road infrastructure, and sensor types. Utilizing a multiobjective programming approach, the model aims to minimize system cost, maximize truncation flow, ensure minimum path coverage, and adhere to an origin-destination (OD) coverage constraint. The paper employs the tolerant lexicographic method based on a genetic algorithm for solving the optimization problem. The case study, conducted on the classical Nguyen Dupuis network, illustrates the model's ability to reflect the impact of multisource data sharing and fault conditions, achieving a multiobjective optimization of traffic sensor layout. While the paper presents a comprehensive approach and integrates the influence of traffic big data, there are aspects that could be further explored. The proposed model's application to real-world scenarios with more complex constraints and traffic conditions would validate its effectiveness. Additionally, a discussion on how different departments could coordinate and share data for optimal detector layout could enhance the practicality of the model. The absence of considerations for data quality differences among detectors and the impact on storage and analysis is notable. Future research could address these aspects and delve into the causes of detector failures, including random distribution characteristics and strategies for handling failures that impact OD coverage constraints. Overall, the paper contributes valuable insights, and further refinement and application in diverse settings would strengthen its relevance for urban traffic information collection systems.

The research paper by (Nallaperuma, et al., 2019) introduces a smart traffic management platform employing AI modules for real-time analysis and adaptive control based on real traffic data from Victoria, Australia. The system leverages Bluetooth Traffic Monitoring System (BTMS) data, integrating it with social media content for comprehensive insights. The proposed platform encompasses modules for traffic data transformation, unsupervised concept drift detection, impact propagation analysis, traffic forecasting, and intelligent traffic control. While the paper claims successful detection of recurrent and non-recurrent events with validation from social media, a closer examination reveals a lack of in-depth explanation regarding the underlying algorithms and methodologies. The traffic forecasting experiments, focusing on short-term flow prediction, highlight the model's performance decline after a certain time lag, pointing to potential limitations in handling complex dependencies. The application of deep reinforcement learning (DRL) for adaptive traffic control demonstrates promising results, but the absence of detailed discussions on parameter tuning and algorithm adaptability raises concerns. Additionally, the authors suggest the platform's applicability to future challenges, including IoT integration and consideration of social behaviours, but fail to provide a roadmap for these advancements.

Despite its commendable efforts, the paper could benefit from more transparency in algorithmic details, a thorough discussion of limitations, and a clearer vision for future developments to enhance its overall contribution to the field of smart traffic management.

The research paper by (Kulkarni, Kumar, & Rao, 2023) investigates the efficacy of Bluetooth-based data collection for road traffic analysis using big data analytics. The paper introduces the use of roadside Bluetooth scanners as low-cost and easily deployable sensors for real-time traffic monitoring. The authors emphasize the increasing number of Bluetooth-enabled devices in vehicles, such as smartphones and fitness bands, as potential sources of traffic data. The study presents a comprehensive analysis conducted in the R Studio environment, covering data collection, manipulation, and visualization. The authors highlight the benefits of off-line data analytics, emphasizing the challenges associated with real-time analysis and the high cost of commercial sensors. The paper offers insights into traffic patterns, device types, and speed variations based on data collected from two locations in Delhi. However, a critical analysis suggests the need for further validation and clarification on how the study's findings contribute to addressing the challenges in urban traffic management. Additionally, the paper could benefit from a more detailed discussion on the limitations of using Bluetooth scanners, especially in capturing unique vehicle counts accurately. Overall, while the research provides valuable information, a more thorough exploration of potential drawbacks and uncertainties in the proposed system would enhance its credibility.

The research paper by (Gong, 2022) delves into the application of Industry 4.0 and big data analysis for smart city traffic flow prediction. The paper introduces the AC traffic prediction algorithm, employing PVHH, IDT, and Ford–Fulkerson algorithms for analysis. While the paper explores various aspects of urban traffic faults and emphasizes the significance of big data in predicting traffic patterns, it lacks clarity in presenting a cohesive framework for its proposed smart city traffic communication forecast. The theoretical basis outlines the challenges in urban traffic safety monitoring, highlighting the scale, diversity, speed, and value of big data. However, the transition from discussing urban traffic faults to the application of AI in healthcare and microbiology appears abrupt and lacks a clear connection. The proposed urban traffic emergency platform (CEP) and its functions are briefly introduced, but the rationale behind the chosen functions is not thoroughly justified. Additionally, the paper introduces the Ford–Fulkerson algorithm for traffic flow prediction and bottleneck identification without providing a comprehensive evaluation of its effectiveness. While the research addresses the importance of leveraging AI and big data in traffic management, the lack of a detailed evaluation and critical analysis of the proposed models and algorithms limits its practical applicability. Furthermore, the paper could benefit from a more focused discussion on the specific challenges and opportunities within the context of smart city traffic management.

DISCUSSION

The examined research papers collectively delve into innovative approaches for addressing urban traffic management challenges through big data analytics. Various studies propose intelligent traffic control methods, leveraging fog processing, cloud data, and advanced algorithms to enhance real time decision-making and mitigate inefficiencies in traffic flow. Additionally, the integration of big data and machine learning models, as seen in works like (Dauletbak & Woo, 2020) and (Tseng, et al., 2018), highlights the potential of these technologies in providing valuable insights into traffic patterns and congestion dynamics.

Moreover, the optimization of traffic signal timings emerges as a common thread, with studies by (Wang, Wang, & Bao, 2019) and (Liu, Zhang, & Hu, 2022) introducing dynamic timing platforms utilizing video recognition and AI algorithms for improved traffic flow efficiency. While these proposed systems showcase promising advancements, the need for further exploration, real-world validation, and considerations for the diverse urban landscape, particularly in India, is evident to ensure their effective implementation in addressing the complexities of urban traffic management.

CONCLUSION

The papers reviewed explore diverse methods that leverage advanced technologies like Big Data, IoT, Machine Learning, and Cloud Computing to address urban traffic challenges. They aim to optimize traffic control and urban mobility by using data analytics and real-time processing. These studies consistently highlight the significance of IoT devices in gathering extensive traffic related data, which undergoes analysis using algorithms like KNN and Random Forest to predict traffic conditions and optimize traffic signals. Integration of fog processing and cloud-based analysis aids in making real-time traffic control decisions, potentially reducing congestion and enhancing traffic flow.

Moreover, these systems feature complex architectures utilizing technologies like Apache Storm, Hadoop, Hive, and GPS devices to collect, process, and analyse massive volumes of traffic, weather, and social media data. They employ various techniques, including fuzzy theory and deep learning algorithms, to forecast congestion and dynamically adjust traffic signals.

While showcasing promising results in simulations and case studies, these systems also present challenges like accuracy in traffic flow prediction and system cost. However, they offer potential advancements in traffic safety by predicting accidents and enhancing traffic flow data collection for better safety measures.

In essence, these research papers provide valuable insights into leveraging Big Data analytics and advanced technologies to revolutionize traffic management systems. They propose promising frameworks for improving traffic control and urban mobility. Further research and development are essential to address existing challenges and enhance the efficacy of these systems, especially in urban areas like Mumbai, India, where traffic congestion is a pressing concern. These advancements in data-driven traffic management could significantly benefit India's urban landscapes by reducing congestion and enhancing transportation infrastructure.

REFERENCES

- Adoni, W. Y., Aoun, N. B., Nahhal, T., Krichen, M., Alzahrani, M. Y., & Mutombo, F. K. (2022, September). A Scalable Big Data Framework for Real-Time Traffic Monitoring System. Journal of Computer Science. doi:10.3844/jcssp.2022.801.810

- Dauletbak, D., & Woo, J. (2020, February 29). Big Data Analysis and Prediction of Traffic in Los Angeles. KSII Transactions on Internet and Information Systems, 14, 841-854. doi: 10.3837/tiis.2020.02.021

- Fatholahzade, N., Akbarizadeh, G., & Romoozi, M. (2018). Implementation of Random Forest Algorithm in Order to Use Big Data to Improve Real-Time Traffic Monitoring and Safety. Journal of Advances in Computer Engineering and Technology, 4(2), 51-60.

- Gong, Y. (2022, August 1). Traffic Flow Prediction and Application of Smart City Based on Industry 4.0 and Big Data Analysis. (M. F. Leung, Ed.) Mathematical Problems in Engineering, 11. doi: https://doi.org/10.1155/2022/5397861

- Hou, Y. (2018). Exploration of Real-Time Traffic Information System Based on Big Data Analysis. (pp. 211-216). Atlantis Press. doi:10.2991/cecs-18.2018.37

- India Population. (n.d.). Retrieved from worldometer: https://www.worldometers.info/world-population/india-population/

- India Traffic. (n.d.). Retrieved from tomtom: https://www.tomtom.com/traffic-index/india-country-traffic/

- Kulkarni, A. R., Kumar, N., & Rao, K. R. (2023, January 26). Efficacy of Bluetooth-Based Data Collection for Road Traffic Analysis and Visualization Using Big Data Analytics. Big Data Mining and Analytics, 6(2), 139-153. doi:10.26599/BDMA.2022.9020039

- Liu, B., Zhang, T., & Hu, W. (2022, June 15). Intelligent Traffic Flow Prediction and Analysis Based on Internet of Things and Big Data. Computational Intelligence in Internet of Things Enabled Applications, 12. doi: https://doi.org/10.1155/2022/6420799

- Liu, Y. (2022, May 11). Research on Optimization of Intelligent Traffic Dispatching Algorithms Based on Big Data in Chinese Urban Internet of Things Platform. Metric Locating Parameters of Networks, 7. doi: https://doi.org/10.1155/2022/4006966

- Nallaperuma, D., Nawaratne, R., Bandaragoda, T., Adikari, A., Nguyen, S., Kempitiya, T., . . . Pothuhera, D. (2019, July 11). Online Incremental Machine Learning Platform for Big Data Driven Smart Traffic Management. IEEE Transactions on Intelligent Transportation Systems, 20(12), 4679 - 4690. doi:10.1109/TITS.2019.2924883

- Population. (n.d.). Retrieved from United Nations: https://www.un.org/en/global-issues/population

- Soleimany, S., Farhang, Y., & Sangar, A. B. (2023). An Intelligent Control Method for Urban Traffic using Fog Processing in the IoT Environment based on Cloud Data Processing of Big Data. Journal of Computer and Knowledge Engineering, 6, 47-58. doi:10.22067/cke.2023.78257.1066

- Sun, X., Bai, Z., Lin, K., Jiao, P., & Lu, H. (2020, November 4). Optimization Model of Traffic Sensor Layout considering Traffic Big Data. (R. Zhang, Ed.) Journal of Advanced Transportation, 11. doi: https://doi.org/10.1155/2020/8845832

- Tseng, F.-H., Hsueh, J.-H., Tseng, C.-W., Yang, Y.-T., Chao, H.-C., & Chou, L.-D. (2018, October 4). Congestion Prediction With Big Data for Real-Time Highway Traffic. IEEE Access, 6, 57311 - 57323. doi:10.1109/ACCESS.2018.2873569

- Wang, C., Qiu, Z., Xiao, Y., Dong, X., & Wang, Y. (2021). Traffic forecasting and road management based on graph neural networks and big data. Academic Journal of Engineering and Technology Science, 4(4), 30-40. doi:10.25236/AJETS.2021.040407

- Wang, Z., Wang, M., & Bao, W. (2019). Development and Application of Dynamic Timing Optimization Platform for Big Data Intelligent Traffic Signals. E3S Web of Conferences, 136. doi: https://doi.org/10.1051/e3sconf/201913601008

A STUDY ON BEHAVIOURAL BIASES INFLUENCING INVESTMENT DECISIONS OF FACULTIES IN CENTRAL MUMBAI REGION

Ms. Shamim Shaikh

Assistant Professor, Depatment of Management & Finance, Don Bosco College, Kurla (W), Mumbai, India

ABSTRACT

Behavioral biases can influence individuals in their decision-making process, which leads them to deviate from rationality and neglect the consideration of all available information. Behavioral biases hinder investors from making rational and prudent investment decisions. Investors who are affected by these biases tend to base their investment choices more on emotions rather than logical reasoning. Behavioural biases potentially affect the behaviours and decisions of Investors. This paper investigates that investment decisions are influenced by behavioural biases instead of rational decision making as provided in older financial theories. Behavioural biases play a significant role while investment decisions are taken by faculty members in Central Mumbai. Behavioral biases refer to irrational beliefs or behaviors that have the potential to subconsciously impact our decision-making process. There are various types of behavioural biases. This research aims to study the various behavioural biases and the influence they have on investment decisions by collecting primary and secondary data. The behavioural biases studied under this research are - Loss aversion, Overconfidence, Herd Behaviour, Anchoring and Regret Aversion. The study adopts a questionnaire survey method and the study targeted faculties in the Central Mumbai region.

Keywords: Investment decisions, Behavioural Biases, Loss aversion, Over confidence, Herd Behaviour, Anchoring Bias.

1. INTRODUCTION

(Miller, 1971) defines Finance as "The theory of finance is concerned with how individuals and firms allocate resources through time. In particular, it seeks to explain how solutions to the problems faced in allocating resources through time are facilitated by the existence of capital markets (which provide a means for individual economic agents to exchange resources to be available of different points In time) and of firms (which, by their production-investment decisions, provide a means for individuals to transform current resources physically into resources to be available in the future)."

Behavioural finance is an outlook beyond the traditional finance theories which assumed the investors to act in a rational manner pertaining to investment or market conditions. Real investors indeed suffer from biases and which leads to them taking flawed decisions (Kapoor & Prosad, 2017).

A significant focus in the realm of behavioural finance is to comprehend how individuals make decisions (Soni & Desai, 2019). Investment decisions are actions which involve allocation or distribution of funds to attain maximum possible returns. Investors while making investment decisions do not always act rationally as presumed by traditional financial theories. Investors frequently make consistent mistakes that may result in satisfactory investment decisions, but ultimately do not lead to the most optimal choices (Bashir et al., 2013). Individual investment decisions have been related to various psychological and behavioural aspects that an individual comes across while making investment choices. This research aims to study the behavioural biases of investors when they make such crucial decisions when choosing a particular investment opportunity. The process of making investment decisions can be seen as a continuous journey that exerts a substantial influence on the psychology of investors.

When individuals make investment decisions their rationale cannot be clearly pointed out as a mathematically calculated sound decision nor can be labelled that they act with their feelings only (Al Mamun et al., 2015). Investors exhibit varying behaviour, such as frequent trading and poor stock selection skills, which can result in increased investment costs and decreased returns. They often sell their profitable investments and hold onto the underperforming ones, which can lead to unnecessary tax obligations. Furthermore, many investors maintain poorly diversified portfolios, which increases their exposure to avoidable risks, and are often influenced by the media and past experiences (Barber & Odean, 2013). A noteworthy correlation exists between personality and risk criterion, and it can be concluded that defence mechanisms are significantly crucial (Lubis et al., 2015)

Behavioural bias refers to a consistent pattern of judgment that can occur in specific situations, resulting in changes in perception, flawed judgment, illogical interpretations, or commonly known as irrational behaviour (Dr. Taqqadus Bashir, 2013). Behavioural biases can influence people's decision-making process and hinder them from making logical or rational choices (Dr. Taqqadus Bashir, 2013). There are many behavioural biases

or factors that the affect decision making of individuals. This research paper studies various biases i.e. Regret Aversion, Overconfidence, Herd Mentality, Anchoring, and Loss Aversion.

1.1 Regret Aversion Bias

Regret aversion is a widely recognized psychological concept that proposes certain individuals experience remorse when they realize their decisions were mistaken, even if they seemed reasonable with the information available before the decision was made (Gazel, 2015). Regret is a form of emotional distress that arises when a previous decision is perceived as being poor. In simpler terms, individuals tend to avoid actions that may result in regret and instead opt for actions that generate a sense of pride (Gazel, 2015). It is common for investors' psychological state to be marked by feelings of sadness and regret when they make a mistake in their investment decisions. When deciding whether to sell a security, investors often experience emotional impacts based on whether they purchased the security at a higher or lower price than its current value (Yahyazadehfar et al., n.d.).

1.2 Overconfidence bias

It is the tendency of some investors to believe that their own assessment and valuation of a security is more precise than valuations provided by others. Psychologists have found that overconfident investors tend to overestimate their ability to control events, downplay risks, and overestimate their level of knowledge. Overconfidence may also refer to a state of mind where an individual believes they possess more knowledge than they actually do. This is sometimes referred to as "miscalibration" or "over-precision (Barber & Odean, 2013). Overconfidence is the belief that one is superior to the average person, which is often referred to as the "better-than-average" effect, although this label may be misleading (Barber & Odean, 2013).

1.3 Herd Mentality Bias

The phenomenon of herd behaviour causes them to follow the choices, beliefs, and actions of other investors, particularly during times of market uncertainty. Herd behavior is a widespread phenomenon among investors (Madaan & Singh, 2019). Behavioral finance recognizes the herd mentality bias as the tendency of investors to imitate the actions and behavior of other investors. This bias is largely driven by emotion and instinct, rather than independent analysis.

1.4 Anchoring

When people make estimates, they frequently begin with an initial value, which may be arbitrary, and then adjust it. However, experimental studies have revealed that people often rely excessively on their initial estimate, which results in insufficient adjustments. This cognitive bias, known as anchoring bias, often causes the investors to develop an expectation that a stock will persistently trade within a predefined range or that a company's earnings will align with historical patterns. (Bhatt, 2010).

1.5 Loss Aversion Bias

Prospect theory suggests that people experience more significant emotional distress from losses than pleasure from equivalent gains in monetary value. Loss aversion is a psychological bias where individuals prefer avoiding losses rather than achieving gains. Due to loss aversion, investors may hold onto investments in a loss position longer than warranted by fundamental analysis (Aigbovo, O., & Ilaboya, O. J. 2019). In general, individuals tend to be more sensitive to losses than to gains, resulting in a higher psychological cost associated with a specific loss compared to the psychological reward from an equivalent gain. This psychological bias, known as loss aversion, suggests that investors may exhibit reluctance in accepting losses (Bhatt, 2010).

2. LITERATURE REVIEW

(Chira et al., 2011) found that investors tend to be optimistic and overconfident about subjective assessments but less so about objective assessments. The respondents displayed a tendency toward the sunk cost fallacy but were not subject to the familiarity heuristic or illusion of control.

(Madaan & Singh, 2019) manifested that individuals tend to behave rationally only when they have all relevant information. In the absence of complete information, empirical evidence indicates patterns of irrationality, resulting in the presence of behavioural biases in stock market decision-making. The study emphasizes the importance of understanding individual investors' behavioural biases and their impact on investment decision-making to minimize excessive trading volume, transaction costs, and psychological errors. (Manani et al., 2023) noted that Over Confidence bias, Heard Mentality, and emotional bias significantly impact investment decisions at a 5% level of significance, based on data collected from 200 respondents in Mumbai, using reliability tests and multiple linear regression models.

3. RESEARCH METHODOLOGY

3.1 Research Problem:
The literature reviews discussed were not indicating the most prominent behavioural biases that have significant impact on the investment decisions of Faculties in the Central Mumbai Region. It is important to understand the impact of these behavioural biases on investment decision-making, and identify the most prominent ones can provide valuable insights into how these biases affect the mindset of faculties in Central Mumbai.

3.2 Objectives:
1. The main objective of this study is to determine the influence of Behavioural Biases on the Investment decisions of Faculties in Central Mumbai.

2. To identify the most prominent behavioural biases that have significant impact on the faculties' investment decisions.

3.3 Hypothesis:
H_{01}– Behavioural Biases do not have significant influence on Investment decisions of Faculties in Central Mumbai.

H_{11} – Behavioural Biases have significant influence on Investment decisions of Faculties in Central Mumbai.

3.4 Sample Size & Type:
Structured questionnaire with five-point Likert scale has been designed and responses have been collected from 50 faculties residing in the Central Mumbai Region of Maharashtra possessing fair knowledge in making investment choices. The questionnaire consists sections on demographics, investment decision making and behavioural biases.

3. SIGNIFICANCE OF STUDY
This study is of great significance for individuals and professionals involved in the financial industry, as it can help them make more informed investment decisions. By understanding the different types of behavioural biases, investors can recognize when they are affecting their decision-making process and take steps to overcome them. Financial planners, managers, and advisors can also benefit from this knowledge by being able to better understand and communicate with their clients.

4. RESULTS AND DISCUSSIONS OF FINDINGS:

4.1 Demographic Profile of the Faculties:

Table 1: Socio-Demographic Profile of Faculties

Sr.No.	Variables Metrics	Frequency	Percentage (%)
1.	Gender:		
	Male	14	28
	Female	36	72
	Total	50	100
2.	Age:		
	20-29 yrs old	18	36
	30-39 yrs old	19	38
	40 yrs and above	13	26
	Total	50	100
3.	Highest level of Education:		
	Graduate	01	02
	Post-Graduate	35	70
	Ph.D.	13	26
	Other	01	02
	Total	50	100
4.	Having work experience in Finance?		
	Yes	21	42
	No	29	58
	Total	50	100
5.	Knowledge about financial Management?		

	Yes	37	74
	No	13	26
	Total	50	100

Table 1 indicates that majority of the faculties were female, that is 36 (72%), while 14 respondents, that is 28% were male faculties. In terms of age of the respondents, 36% respondents i.e. 18 faculties were in the age bracket of 20-29 yrs, 19 respondents constituting 38% belonged to 30-39 yrs and remaining 13 respondents that is 26% were 40 years and above. When it comes to level of education, 1(2%) respondent was a graduate, 35 (70%) respondents were post graduates, 13 (26%) were Ph.D. holders and 1 (2%) respondent had other professional qualifications. Out of the 50 respondents, only 21 respondents that is 42% faculties had work experience in the field of finance, but when asked about knowledge in financial management, 37 respondents that is 74% respondents agreed to it. 26% i.e. 13 respondents had no knowledge about financial management.

4.2 Frequency Distribution of Investment decisions of Faculties:

S/N	Variable	Frequency	Percentage (%)
1.	Do you make Investment decisions?		
	Yes	41	82
	No	9	18
	Total	50	100
2.	What encouraged you to start investing?		
	Friends/ Family	21	42
	My Experience & Personal Financial Knowledge	19	38
	Current Trends & Mass-Media	9	18
	Not investing	1	2
	Total	50	100
3.	What was your objective of Investment?		
	Appreciation of capital	21	42
	Income Generation	15	30
	For Stability of Principal	7	14
	To have Tax Shelter	5	10
	Spare income source and beat inflation	1	2
	Other	1	2
	Total	50	100
4.	Generally, what proportion of your income do you prefer to invest?		
	0-10%	6	12
	10-20%	21	42
	20-30%	10	20
	Above 30%	13	26
	Total	50	100
5.	For how long do you prefer to keep your investments?		
	Less than Six Months	1	2
	Six months to One year	3	6
	One year to 3 years	16	32
	More than 3 years	30	60
	Total	50	100
6.	What is the main source of information for you, while making Investment decisions?		
	Print Media	5	10
	Broker/ Funds	10	20
	Web and Internet	20	40
	Reference Groups	15	30
	Total	50	100

Source: Author

A survey was conducted among 50 participants to understand their investment decisions. It was found that 82% of the participants make investment decisions, while the remaining 18% do not. The factors that encouraged them to start investing were influenced by friends and family (42%), personal experience and financial knowledge (38%), current trends and mass media (18%), and a small percentage (2%) stated they were not investing at all. The objectives of their investments included capital appreciation (42%), income generation (30%), stability of principal (14%), tax shelter (10%), and a spare income source/beat inflation (2%). A significant proportion of participants allocated different percentages of their income towards investments: 12% invested 0-10%, 42% invested 10-20%, 20% invested 20-30%, and 26% invested above 30%. In terms of investment duration, 2% preferred less than six months, 6% chose six months to one year, 32% intended to hold investments for one to three years, and 60% planned to keep their investments for more than three years. The main sources of information for making investment decisions varied among respondents, with 10% relying on print media, 20% seeking advice from brokers or funds, 40% utilizing the web and internet, and 30% consulting reference groups. The survey indicates majority favouring long-term investments and allocating a significant portion of their income to investments.

4.3 Behavioural Biases Influencing Investment Decisions of Faculties:

S/N	B	Strongly Disagree	Disagree	Not sure	Agree	Strongly Agree
1.	Fear of making a bad investment impacts your decision-making. (Regret Aversion Bias)	3 (6%)	7 (14%)	6 (12%)	27 (54%)	7 (14%)
2.	You opt for safer investment choices over riskier ones to avoid potential future disappointment. (Regret Aversion Bias)	2 (4%)	6 (12%)	8 (16%)	25 (50%)	9 (18%)
3.	You believe that you are more skilled than the average investor when it comes to making investment decisions. (Over Confidence Bias)	2 (4%)	12 (24%)	24 (48%)	10 (20%)	2 (4%)
4.	You engage in riskier investments than you should based on your actual abilities. (Over Confidence Bias)	6 (12%)	17 (34%)	14 (28%)	11 (22%)	2 (4%)
5.	You follow the actions of other investors when making investment decisions. (Herd Mentality Bias)	2 (4%)	18 (36%)	14 (28%)	12 (24%)	4 (8%)
6.	You more likely to invest in popular assets, even if they may not be the most financially sound investments. (Herd Mentality Bias)	6 (12%)	18 (36%)	10 (20%)	11 (22%)	5 (10%)
7.	Initial valuations or price quotes impact your subsequent valuation of an investment. (Anchoring Bias)	0	5 (10%)	17 (34%)	25 (50%)	3 (6%)
8.	You rely on your own prior experiences or expectations when evaluating potential investments. (Anchoring Bias)	1 (2%)	5 (10%)	7 (14%)	29 (58%)	8 (16%)
9.	You are more sensitive to losses than to gains when making investment decisions. (Loss aversion Bias)	1 (2%)	13 (26%)	9 (18%)	22 (44%)	5 (10%)
10.	You have made decisions based on the fear of potential losses, even when the potential gains were greater. (Loss aversion Bias)	4 (8%)	9 (18%)	11 (22%)	22 (44%)	4 (8%)

Source: Author

The fear of making a bad investment, known as regret aversion bias, affects decision-making. In the first scenario, 54% of the respondents opt for safer investment choices, while 14% choose riskier options. In the second scenario, 50% of respondents prefer safer investments, whereas 18% choose riskier ones. Overconfidence bias is also evident, with 48% of respondents believing they are more skilled than the average investor in the first scenario. In the second scenario, 28% engage in riskier investments than their actual abilities suggest. Herd mentality bias is observed when 36% of respondents follow the actions of other investors in the

first scenario, and 20% invest in popular assets in the second scenario. Anchoring bias is illustrated by 50% of respondents being influenced by initial valuations or price quotes in the first scenario, while 58% rely on their own prior experiences or expectations in the second scenario. Lastly, loss aversion bias is seen in the second scenario, with 44% being more sensitive to losses than to gains and 44% making decisions based on the fear of potential losses, even when the potential gains were greater.

4.4 Data Analysis and Findings:

ANOVA						
Source of Variation	**SS**	**Df**	**MS**	**F**	**P-value**	**F crit**
Between the Groups	20638.9031	31	665.7711	482.5376	0	1.451844
Within Groups	22737.93023	16480	1.379729			
Total	43376.83333	16511				
Alpha	0.921003					

Source: Author

Interpretation:
As per the above tabular representation, it can be observed that the P-Value is 0 and even the alpha is less than 1 which clearly indicates that the Alternate Hypothesis (Behavioural Biases have significant influences on Investment decisions of Faculties in Central Mumbai) is accepted.

CORRELATION RESULT:
The correlation matrix or the Pearson's Coefficients are as shown below:

Table 4: Correlation of set 1

	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
Q8	1									
Q9	0.5931	1.0000								
Q10	0.6199	0.4669	1.0000							
Q11	0.5179	0.4721	0.7307	1.0000						
Q12	0.5406	0.4564	0.7727	0.8039	1.0000					
Q13	0.5241	0.4253	0.7219	0.7208	0.8296	1.0000				
Q14	0.4081	0.3727	0.4634	0.5182	0.4712	0.4883	1.0000			
Q15	0.5173	0.4524	0.7128	0.7924	0.8070	0.7544	0.4780	1.0000		
Q16	0.5259	0.4640	0.7670	0.7113	0.4321	0.7766	0.4701	0.5049	1.0000	
Q17	0.5316	0.4564	0.7727	0.8039	0.8231	0.7311	0.5062	0.8243	0.5055	1.0000

Source: Primary Data Collection

All the statements appear to be independent. The pairs (of statements) showing some correlation (more than 0.87) are:

- You follow the actions of other investors when making investment decisions. (Herd Mentality Bias) (1aQ12) and You have made decisions based on the fear of potential losses, even when the potential gains were greater. (Loss aversion Bias) (1aQ17) (0.8231)

- You rely on your own prior experiences or expectations when evaluating potential investments. (Anchoring Bias) (1aQ15) and You have made decisions based on the fear of potential losses, even when the potential gains were greater. (Loss aversion Bias) (1aQ17) (0.8243)

Interpretation:
The above mentioned two sets of questions such as (1aQ12) and (1aQ17) along with (1aQ15) and (1aQ17) are highly correlated amongst each other which clearly states that the Alternate Hypothesis which is (Behavioral Biases have significant influences on Investment decisions of Faculties in Central Mumbai) is accepted.

➤ **Hypothesis Testing**
Summary of Hypothesis Testing is as follows:

Table 5: Summary of Hypothesis Testing

Sr.No	Hypothesis Code	Hypothesis Type	Hypothesis Description	Inference
1	H11	**Alternative Hypothesis**	**Behavioural Biases have significant influences on Investment decisions of Faculties in Central Mumbai..**	**Accepted**

Source: Author

The Cronbach's Alpha is 0.921003 suggests that the items or measures used in the study have high internal consistency. This indicates that the variables or factors being measured are reliable and consistent.

Hypothesis: Since the P-value is 0, it implies that the hypothesis "Behavioural Biases have significant influences on Investment decisions of Faculties in Central Mumbai" can be accepted. The statistical analysis suggests that there is a significant relationship or influence between behavioural biases and the investment decisions among faculties in Central Mumbai.

5. CONCLUSION

Through rigorous testing and comprehensive analyses, the research findings have unveiled a substantial and undeniable impact of behavioral biases on the investment decisions made by faculty members. These results not only underscore the prevalence of these biases but also shed light on their pivotal role in shaping investment choices. Such insights are instrumental in understanding the intricacies of financial decision-making processes and their potential departure from the realm of pure rationality.

Behavioural biases, as demonstrated in this study, wield a profound influence over investment decisions. They can divert individuals from making purely objective, evidence-based choices, and instead, steer them toward decisions that are clouded by cognitive and emotional predispositions. Consequently, these biases can lead to suboptimal investment outcomes and financial strategies that deviate from what traditional finance theory would deem rational.

The implications of these findings are twofold. First, for faculty members who engage in investment activities, this research serves as a clarion call to recognize and introspect their own behavioral biases. By understanding these biases and how they manifest in investment choices, faculty members can take deliberate steps to mitigate their impact. This self-awareness is crucial for aligning investment decisions with long-term financial goals and objectives, ultimately resulting in more prudent and successful investment strategies.

Second, these findings hold significance beyond the academic sphere. Investors across all domains, whether they are seasoned professionals or novice individuals, are susceptible to behavioral biases. The recognition of these biases transcends academia and becomes paramount for anyone seeking to navigate the complex landscape of financial markets. Understanding the psychological underpinnings that influence investment decisions equips investors with the tools necessary to make more informed and rational choices.

Furthermore, this research lays the groundwork for future investigations. While the study has provided invaluable insights into the impact of behavioral biases, there is still a wealth of unexplored territory. Future studies can delve into additional factors and variables that may further elucidate the decision-making process. Moreover, interventions and strategies aimed at ameliorating the influence of these biases merit exploration. The ultimate goal is to empower individuals to make more objective and optimal investment choices by leveraging a deeper understanding of their behavioral biases.

In conclusion, this study has unveiled the profound impact of behavioral biases on investment decisions, not only among faculty members but also within the broader context of financial decision-making. Recognizing these biases and their effects is a critical step toward mitigating their influence and promoting more informed and rational investment strategies. As future research continues to explore these phenomena, the collective knowledge generated will contribute to the advancement of decision-making strategies that are both objective and optimized, regardless of the pervasive presence of behavioral biases.

BIBLIOGRAPHY

- **Links**

https://www.managementstudyguide.com/regret-aversion-bias.htm

- **Books**

Bhatt, S. N. (2010). *Behavioral Finance.* Kuala Lumpur, Malaysia: Dios Publication Pvt. Ltd.

REFERENCES

- Al Mamun, M., Syeed, Md. A., & Yasmeen, F. (2015). Are investors rational, irrational or normal? *Journal of Economic & Financial Studies*, *3*(04), 01. https://doi.org/10.18533/jefs.v3i04.161

- Barber, B. M., & Odean, T. (2013). The Behavior of Individual Investors. In *Handbook of the Economics of Finance* (Vol. 2, pp. 1533–1570). Elsevier. https://doi.org/10.1016/B978-0-44-459406-8.00022-6

- Bashir, D. T., Azam, S. N., Butt, S. A. A., Javed, S. A., & Tanvir, S. A. (2013). *ARE BEHAVIORAL BIASES INFLUENCED BY DEMOGRAPHIC CHARACTERISTICS & PERSONALITY TRAITS? EVIDENCE FROM PAKISTAN.*

- Chira, I., Adams, M., & Thornton, B. (2011). Behavioral Bias Within The Decision Making Process. *Journal of Business & Economics Research (JBER)*, *6*(8). https://doi.org/10.19030/jber.v6i8.2456

- Dr. Taqqadus Bashir, Dr. T. B. (2013). "Impact of Behavioral Biases on Investors Decision Making: Male Vs Female." *IOSR Journal of Business and Management*, *10*(3), 60–68. https://doi.org/10.9790/487X-1036068

- Gazel, S. (n.d.). *THE REGRET AVERSION AS AN INVESTOR BIAS.*

- Kapoor, S., & Prosad, J. M. (2017). Behavioural Finance: A Review. *Procedia Computer Science*, *122*, 50–54. https://doi.org/10.1016/j.procs.2017.11.340

- Lubis, H., Kumar, M. D., Ikbar, P., & Muneer, S. (2015). *Role of Psychological Factors in Individuals Investment Decisions*. 5.

- Madaan, G., & Singh, S. (2019a). An Analysis of Behavioral Biases in Investment Decision-Making. *International Journal of Financial Research*, *10*(4), 55. https://doi.org/10.5430/ijfr.v10n4p55

- Manani, K., Pednekar, D., & Maurya, A. (2023). *IMPACT OF BEHAVIOURAL FINANCE ON INVESTMENT DECISION- A STUDY OF INVESTMENT BEHAVIOUR IN MUMBAI REGION*. *16*(43).

- Soni, K., & Desai, D. M. (n.d.). *A study on different behavioral biases and its impact on Investor's Decision Making*. *6*(2).

- Yahyazadehfar, M., Ghayekhloo, S., & Sadeghi, T. (n.d.). *The Influence of Investor Psychology On Regret Aversion*. (Sahni, 2023)

- Sahni, T. (2023). An Insight Into The Behavioral Factors Affecting Investment Decision Making W.R.T. Punjab. *Journal of Pharmaceutical Negative Results*, *14*(2).

MILLENNIALS AND THEIR ONLINE SHOPPING BEHAVIOUR TOWARDS ELECTRONICS IN MUMBAI REGION - A STUDY ON PURCHASING PATTERNS OF ONLINE SHOPPING TRENDS

Swati Nitin Chandak and Rashmi Bhattacharya

Ghanshyamdas Saraf College of Commerce and Arts

ABSTRACT

Digital marketing is the synergy between Information and Communication Technology (ICT) and marketing strategies geared towards promoting goods and services. Among the millennial demographic, one-click shopping has become a cornerstone of consumer behaviour. The entry of Amazon and Flipkart into the Indian market has catalysed a notable evolution in online retail, fostering rapid sales expansion. This study is focused on analysing the transition of millennials from conventional shopping practices to online purchasing behaviours.

Keywords: Millennial generation, online shopping, electronic shopping, one-click shopping

INTRODUCTION

India has emerged as one of the swiftest and most extensive markets for digital users, boasting nearly half a billion Internet subscribers. Nevertheless, the adoption of digital technologies remains uneven across different business segments (Company, March 27, 2019). India's digital economy is anticipated to surpass other nations in both growth and volume. Consumers nationwide are actively embracing digital technologies, with internet services proving to be a pivotal platform in various sectors, facilitating the creation of a globally interconnected network for business and information. A growing number of individuals are gravitating towards extensive internet use, driven by the increasing availability of information, improved interactive capabilities, and easier access to technology through internet services. The heightened capabilities of internet technology and services have ushered in a transformation in business models, expanding the array of shopping options.

The surge in demand for online shopping is primarily fuelled by a new generation of users who prioritize enhanced convenience, diverse options, and value. Emerging players are actively expanding their customer base by adopting customer-centric models and strategies. The online industry as a whole is poised for changes based on the nature of the products being purchased. Factors such as swift delivery, unparalleled convenience, and competitive pricing play pivotal roles in propelling the growth of online shopping. Additionally, considerations like reviews, ratings, and previews of product quality and value are anticipated to influence customers' decisions to shop online, both positively and negatively. The increasing number of smartphone users, coupled with improved network connectivity, encourages customers to effortlessly shop from any location, manufacturer, or brand across the country. Hence the minimal effort of travelling to the shop and saving time, online shopping tends to witness an increase in demand. With the rising competition and changing environmental scenario, it is thereby becoming essential for the retailers to strategize and plan their business models accordingly, to enhance the overall consumer shopping experience.

Consumer behaviour is a study of consumer-based activities that include purchase decisions, consumer preferences, and the satisfaction of consumers post the purchase of a product. Consumer behaviour can be classified into actions and decisions that are expected to impact their purchasing power. It basically refers to the purchase, selection, and consumption of goods and services to cater to their needs and requirements.

A few of the major factors revolving around the buying decisions include:

- Need for consumers to purchase the product.

- Factors impacting/influencing consumer purchases.

- Convenience, brand image, product attributes, or other criteria that are important for consumers to make their purchases.

- Strategies implemented by vendors to enable consumers to purchase the products.

By understanding the factors that are impacting consumer decisions, brands are expected to develop their products and strategies accordingly, thereby catering to the changing consumer needs and requirements.

MILLENNIAL CONSUMER Millennial, also known as Generation Y or the Net Generation, are the demographic cohort that follows Generation X. The term Millennial is applied to individuals who reached adulthood at the turn of the 21st century. Millennial grew up in an electronics-filled and increasingly online and

socially networked world. They are the generation that has received the most marketing attention. As the most diverse generation, millennials tend to be tolerant of difference.

REVIEW OF LITERATURE

A Literature review explains the previous research taken place as well as the gap in the literature which needs to be fulfilled. With the help of the literature review, this study objective was framed. There are limited studies which are directly relevant to the study concerned According to Charles, e-commerce is a tool for reducing the costs of administrative and cycle times, streaming processes of business, and improving relationships with both business partners and customers (Akbar and James, 2014). E-Shopping, also known as online shopping, is a form of e-commerce enabling customers to directly purchase products or services from any retailer through the internet using websites., Bourlakis et al. (Ahmed, Ling, Rafique, Khan and Jamil, 2018).

In Kanade's 2019 study, various dimensions of online consumer buying behaviour were explored to understand consumer actions in diverse situations. The literature review highlighted key factors influencing online decision-making, including user-friendly website architecture, information accessibility, perceived risk, transactional security, and pricing. Andreasen's six social marketing benchmarks – behaviour change, exchange, formative research, segmentation, marketing mix, and competition – were also considered. The study emphasized that a comprehensive examination of offline and online buyer behaviour for specific products and services is lacking. The findings underscore the need for marketers to adopt new strategies in the digital age to attract online buyers, as consumer behaviour is a dynamic process. Establishing customer loyalty is challenging, but effective online strategies and a thorough understanding of consumer behaviour can yield desired results.

Sharon S. Pate, Melinda Adams 2013, April -In a research study, investigators noted that social media platforms have become a significant aspect of millennials' lives. According to the Pew Research Center (2010), millennials predominantly conduct their lives online. Social media is linked with a positive correlation, offering instrumental value that aids consumers in deciding which product to purchase, when to make the purchase, and where to make it (Weigand, 2009). As social media increasingly integrates into the promotional mix, it is crucial to comprehend the factors driving purchase behaviour and whether social media plays a role in shaping that behaviour. The researchers aimed to determine the impact of social networks on the purchasing behaviour of millennials.

Sivakumar and Gunasekaran (2017)1 revealed that the online market in India is growing at an exponential rate, predominantly driven by the massive and extensive promotional activities. This strategy may not be appreciable in the long run; hence a real value addition is essential, which is explored through this study. The main objective of this research is to study about the determinants that are affecting the online purchasing behaviour of millennial consumers. Conceptual framework, which consists of four factors that may induce online purchase behaviour among millennial consumers: consumer innovativeness, perceived benefits, perceived risks, attitude and intention. The population of the study is from the millennial customer's segment of Chennai metro, Tamil Nadu, India, and the study used systematic random sampling. The statistical tools applied are chi-square, ANOVA, correlation, multiple regression, and factor analysis. From the outcomes of this study, factors influencing online purchase are analysed, and suggestive strategies for online companies are recommended.

Shanthi and Desti (2015)10 examined Individual perceptions of online shopping vary, influenced by factors such as proper connectivity and exposure to the online shopping environment. These perceptions are also shaped by individual characteristics. The research indicates a strong association between online shopping and the younger demographic, with older adults exhibiting less engagement in online shopping compared to their younger counterparts. Specifically, individuals aged 20-25 are found to be particularly inclined towards online shopping. Additionally, the study reveals that a significant portion of online shoppers, primarily motivated by cost savings, particularly purchase books due to their affordability with various discounts and offers compared to market prices.

(Roopa KV- 2019) The study revealed that the most influencing factors for millennials to buy the products through social media is the credibility of information from the retailers through Live photo and video streaming of products, Algorithm updates on the present trending posts, hash tags, discount coupon codes, Social campaigning and marketing through relevant content on social media.

OBJECTIVES OF THE STUDY

1. To study the attitudes that influence online millennial consumers.

2. To identify the factors which influence the millennials to shop online.

3. To learn about the various problems faced by online millennial consumers.

LIMITATIONS OF THE STUDY

1. The sample size is small due to limited time to collect.

2. The survey is restricted to online shopping behaviour of millennials towards electronic goods only.

RESEARCH METHODOLOGY

The purpose of this study is to analyse millennials' perception towards online shopping of electronics.

Research universe	Mumbai suburbs
Sampling method	Convenience sampling
Sample size	51
Method of data collection	Primary data & secondary data
Method of primary data collection	Pre-structured questionnaire
Method of secondary data collection	Journals, articles, research papers and the web

Data Collection and Interpretation

Age:

51 responses

Legend:
- 28 – 31
- 32 – 35
- 36 – 39
- 40 – 43
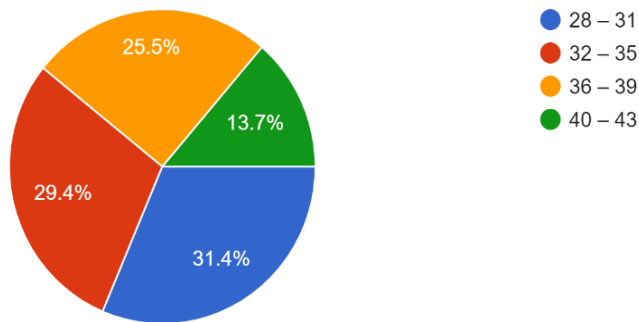
31.4% respondents fall in the age category of 28 to 31 years.

29.4% respondents fall in the category of 32 to 35 years.

25.5% respondents fall in the age category of 36 to 39 years.

13.7% respondents fall in the category of 40 to 43 years.

Monthly Income:

51 responses

Legend:
- Less than Rs.20,000
- Rs.20,000 to Rs.40,000
- Rs.40,000 to Rs.60,000
- Rs.60,000 to Rs.1,00,000
- More than Rs.1,00,000
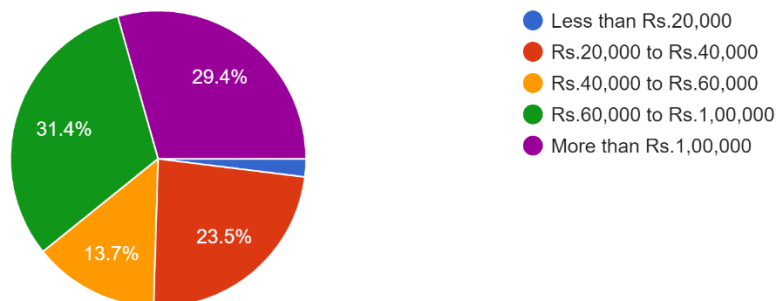
23.5% respondents earn between Rs.20,000 and Rs.40,000.

13.7% respondents earn between Rs.40,000 and Rs.60,000.

31.4% respondents earn between Rs.60,000 and Rs.1 lakh.

29.4% respondents earn more than Rs.1 lakh.

How long you have been shopping online?

51 responses

- ● Less than 1 year
- ● 1 year – 3 years
- ● 3 – 5 years
- ● More than 5 years
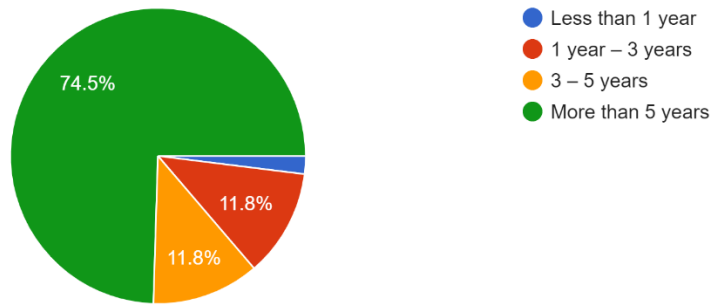
11.8% respondents have been shopping online for 1-3 years.

11.8% respondents have been shopping online for 3-5 years.

74.5% respondents have been shopping online for over 5 years.

How much do you spend on online shopping annually?

51 responses

- ● Less than Rs.10,000
- ● Up to Rs.25,000
- ● Between Rs.25,000 and Rs.75,000
- ● Between Rs.50,000 and Rs.75,000
- ● Between Rs.75,000 and Rs.100,000
- ● More than Rs.1,00,000
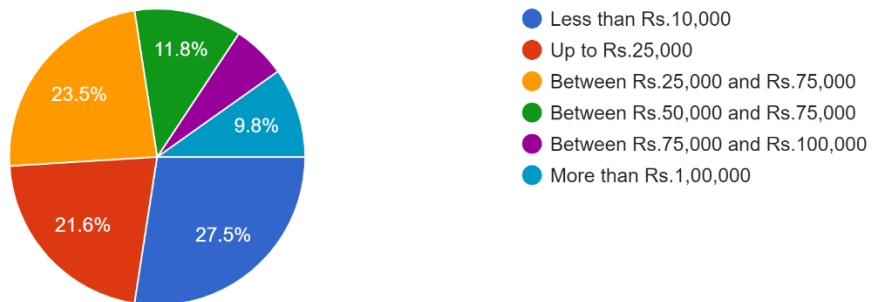
27.5% respondents spend less than Rs.10,000.

21.6% respondents spend up to Rs.25,000.

23.5% respondents spend between Rs.25,000 and Rs.75,000.

11.8% respondents spend between Rs.50,000 and Rs.75,000.

9.8% respondents spend more than Rs.1,00,000.

Which e-shopping websites do you use to purchase electronics? (Tick wherever applicable)

51 responses
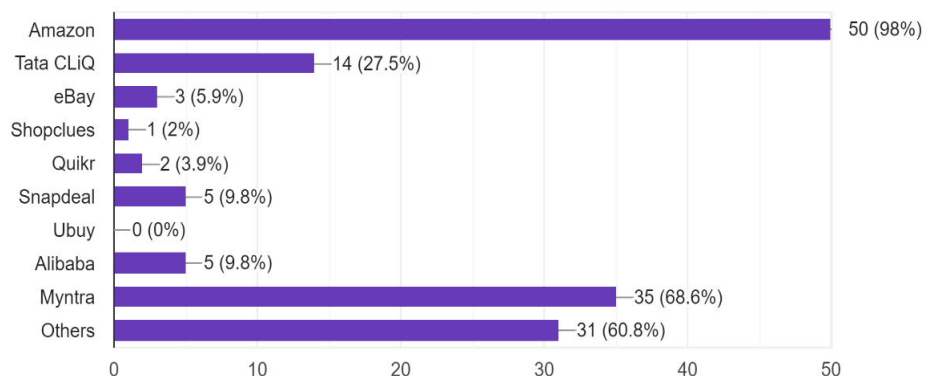
98% respondents shop from Amazon.

68.6% respondents shop from Myntra.

60.8% respondents shop from other sites.

27.5% respondents shop from Tata CLiQ.

9.8% respondents shop from Snapdeal and Alibaba.

5.9% respondents shop from eBay.

3.9% respondents shop from Quikr.

What kind of electronic goods do you purchase online? (Tick wherever applicable)

51 responses
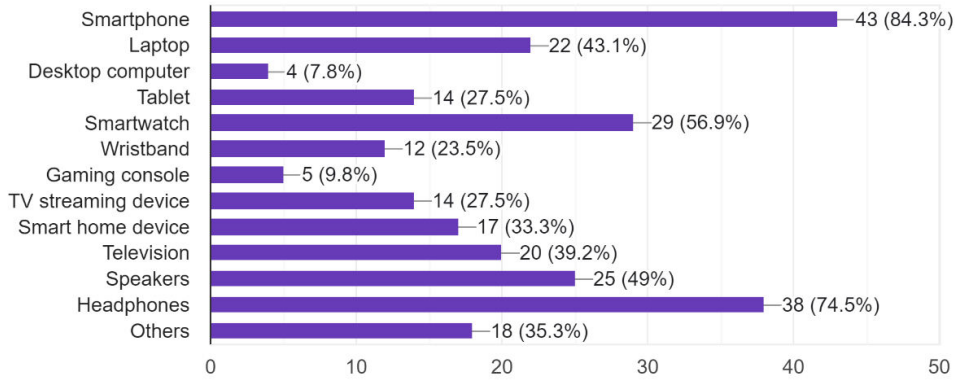
84.3% respondents purchase a smartphone.

74.5% respondents purchase headphones.

56.9% respondents purchase a smartwatch.

49% respondents buy speakers.

43.1% respondents buy a laptop.

39.2% respondents purchase a television.

35.3% respondents purchase other products.

33.3% respondents purchase a smart home device.

27.5% respondents buy a tablet and TV streaming device.

23.5% respondents buy a wristband.

9.8% respondents purchase a gaming console.

7.8% respondents purchase a desktop computer.

What is your preferred mode of payment at the time of checkout? (Tick wherever applicable)

51 responses
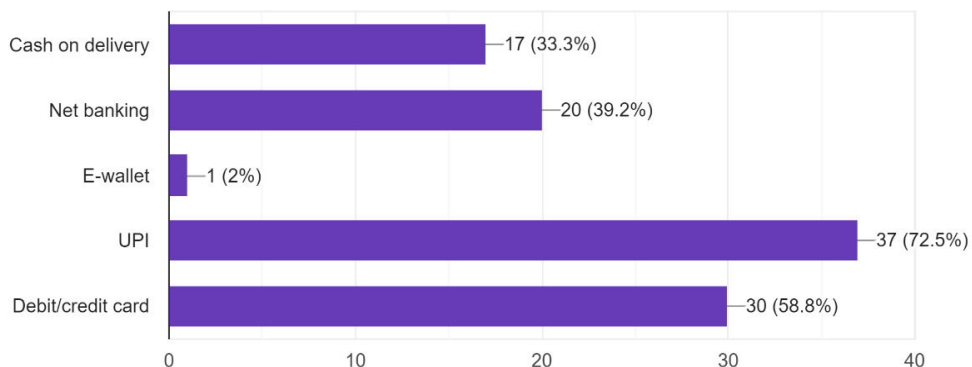
72.5% respondents use UPI as the preferred mode of payment.

58.8% respondents use debit/credit card as the preferred mode of payment.

39.2% respondents use net banking as the preferred mode of payment.

33.3% respondents use COD as the preferred mode of payment.

2% respondents use E-wallet as the preferred mode of payment.

What is your overall satisfaction level towards online shopping of electronics?
51 responses
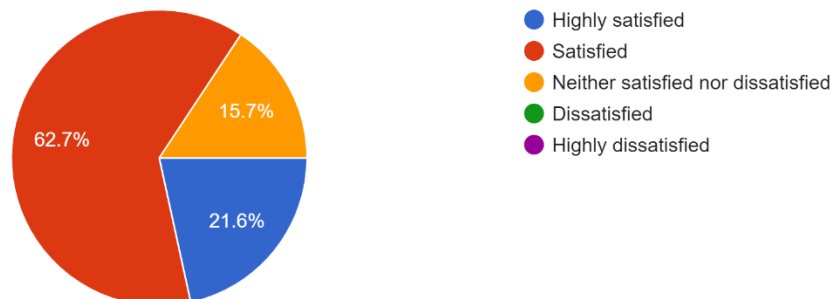
62.7% respondents are satisfied with their online shopping experience.

21.6% respondents are highly satisfied with their online shopping experience.

15.7% respondents are neither satisfied nor dissatisfied with their online shopping experience.

FINDINGS

The primary findings indicate a significant response from individuals aged 28 to 31, with an income range from Rs.60,000 to Rs.1 lakh. A substantial portion of this demographic has been engaging in online purchases for over five years, with the majority favouring the Amazon platform for electronic purchases, particularly smartphones and headphones. UPI emerges as the preferred payment method among them. The accessibility of online shopping, especially its round-the-clock availability, resonates well with professionals. Moreover, the satisfaction rate among millennials regarding online purchases stands at 62%.

CONCLUSION

In the past decade, e-commerce has witnessed significant growth in India. Enabled by the widespread availability of the internet, customers now have the convenience of purchasing goods from anywhere, with secure digital payment options. Companies continuously devise new strategies to stand out in the online business landscape and dominate the market. The diverse range of products offered in online shopping appeals to a large customer base, who prioritize convenience above all else. Ordering online is perceived as more convenient than visiting crowded stores, with just a mobile device and internet connection needed for transactions. Among millennials, who are well-versed in online services and technology, online shopping is particularly popular.

The perception of ordering electronic products online varies from person to person based on individual needs and opinions. While many millennials prefer digital payment channels, some still opt for cash on delivery due to concerns about the reliability of online payments. Despite expectations of good quality and durability, online purchases of electronic goods are often driven by their lower costs compared to physical stores. The wide variety of products available online further enhances the appeal of online shopping for millennials.

The fast-paced lifestyle prevalent in India today further fuels the growth of online services. It can be concluded that while online ordering has its advantages and disadvantages, its growth is inevitable as internet usage and technology continue to increase exponentially.

REFERENCES

- Akbar, Saad; James, Paul TJ. 2014. Consumers' Attitude Towards Online Shopping: Factors Influencing Employees of Crazy Domains to Shop Online. Journal of Management and Marketing Research, pages 1-11

- Ahmed, Zahid; Lings, Su; Rafique, Kalsoom; Khan, Sher Zaman; Jamil, Sadaf. 2018. A Study of The Factors Affecting Consumer Buying Behavior Towards Online Shopping in Pakistan. Journal of Asian Business Strategy, Volume 7, Issue 2 (2017): 44-56

- Anusha Thakur:-A STUDY ON CONSUMER BEHAVIOURAL ANALYSIS OF ONLINE SHOPPING TRENDS IN INDIA * -International Journal on Customer Relations -9 (1 & 2) 2021, 28-38 http://publishingindia.com/ijcr/

- Husminah S M,Sugiyah Sugiyah,R. Ati Haryati,Rina Lestari:-Factors Influencing Online Buying Behaviour of Millennial Generation- VOL. 1 NO. 1 (1): OCTOBER 2020,LPPM UPN "Veteran" Yogyakarta Conference Series Proceeding on Economic and Business Series (EBS) Volume 1Number 1 (2020): 165-171

- Kanade, V. S. (2019, February):online and offline consumer buyingbehavior. International Journal of Research andAnalytical Reviews, 6(1), 166-155.

- Lokesh R (Research scholar Jain Deemed to be University, Bangalore) Dr.Hemanth Kumar S (Professor at CMS Business School)-A Study on Millennial Consumer Perception on online shopping with special reference to Smart phones Entrepreneurship Innovation & Start-Ups ISBN: 978-81-959613-2-0

- Dr. Roopa KV, Baisakhi Debnath, Dr. Raghunandan Gopal, Ms. Milana Babu Dr Seema Sambargi-Millennials and Digitalization: Online shopping behavior-,Journal of Positive School Psychology,2022, Vol. 6, No. 3,10172–10185,http://journalppw.com101

- SivaKumar, A., & Gunasekaran, A. (2017). An empirical study on the factors affecting online shopping behavior of millennial consumers. Journal of Internet Commerce, 16(3), 219-230.

- Shanthi, R., & Desti, K. (2015). Consumers' perception on online shopping. Journal of Marketing and Consumer Research, 13, 14-21.

THE FUTURE OF PAYMENTS IN INDIA: AN ANALYSIS OF DIGITAL RUPEE AND UPI

Dr. Rakhi P. Madnani

Assistant Professor, Department of Accountancy, SVKM's Mithibai College of Arts, Chauhan Institute of Science & Amrutben Jivanlal College of Commerce & Economics (Autonomous), Vile Parle (W), Mumbai-400056.

ABSTRACT

The Reserve Bank of India's Digital Rupee (e₹) and the Unified Payments Interface (UPI) are transforming the future of payments in India. In our research study, researcher adopted a qualitative method to understand existing literature on the topic. Official and non-official websites were analyzed for information. The study relied on secondary data only, as there was limited prior research in this area. This study analyzes the impact and potential of the digital rupee and UPI in the Indian financial landscape. The digital rupee, launched on December 1, 2022, offers many advantages over traditional paper currency, including security, accessibility, and government backing. The study also highlights potential drawbacks such as disruption to the banking system and security concerns. On the other hand, UPI is a platform for facilitating banking transactions, different from the digital rupee. The integration of the digital rupee with existing payment systems such as UPI and IMPS is expected to increase financial inclusion and reduce transaction costs. The study answers key research questions and concludes that the digital rupee and UPI have the potential to play a significant role in the future of payments in India.

Keywords: Digital Rupee, UPI, Financial inclusion, transaction costs, future of payments.

1. INTRODUCTION TO DIGITAL RUPEE IN INDIA

The Digital Rupee (e₹) of e INR is a tokenized digital version of the Indian Rupee, to be issued by the Reserve Bank of India (RBI) as a central bank digital currency. It is different from cryptocurrency in that it is backed by the government and regulated by the RBI. The Reserve Bank of India (RBI) has announced the launch of the Digital Rupee (e₹ or e INR) on a pilot basis. The Digital Rupee was proposed in January 2017 and is expected to be launched in the financial year 2022-23. The pilot will initially cover four cities: Mumbai, New Delhi, Bengaluru and Bhubaneshwar where customers and merchants will be able to use the digital rupee for transactions. The RBI has provided guidelines on how to use the digital rupee. To transact with the RBI e-Rupee, users do not need a bank account. The Digital Rupee can be used for payments, transfers and other financial transactions. The launch of the Digital Rupee marks an important step towards transforming India's financial transactions and making them more secure and efficient.

1.1. Objective of the Study:

The objective of this study is to analyze the impact and Potential of the Digital Rupee and UPI in the future of payments in India.

1.2. Research Questions:

1. What are the key features and advantages of the Digital Rupee in comparison to traditional paper currency and cryptocurrencies?

2. How does the Digital Rupee differ from the Unified Payments Interface (UPI)?

3. What are the potential drawbacks and challenges of the Digital Rupee system?

4. How will the integration of the Digital Rupee with existing payment systems impact the financial transactions in India?

5. What are the possible implications of the Digital Rupee on financial inclusion and reducing transaction costs?

For the purpose of our research study, a qualitative method was adopted to gain a deeper understanding of existing literature on the topic. In order to gather information, various official and non-official websites were analyzed and reviewed. The study relied solely on the secondary data available and no primary data was collected through additional research or experimentation. This was due to the lack of substantial research conducted in this area prior to this study.

2. FEATURES, ADVANTAGES & DISADVANTAGES OF DIGITAL RUPEE IN INDIA

2.1 Features of Digital Rupee
The Digital Rupee (e₹) or e INR is a tokenized digital version of the Indian Rupee, to be issued by the Reserve Bank of India (RBI) as a central bank digital currency. Transactions will be through a digital wallet offered by the participating banks, and stored on mobile phones and devices, when used for transactions, it goes from one e-Rupee wallet to another. Features of the Digital Rupee or e-Rupee include easy conversion into cash and commercial bank money, being a flexible legal tender and having low transaction costs.

2.2 Advantages of Digital Rupee
The Digital Rupee (e₹) or e INR is a tokenized digital version of the Indian Rupee, to be issued by the Reserve Bank of India (RBI) as a central bank digital currency (CBDC). It is equivalent to paper currency and offers the same trust, safety and settlement finality. The RBI's Concept Note explains that the objectives of issuing a CBDC in India are to provide an additional option for using money, increase financial inclusion, reduce transaction costs and improve efficiency.

The Digital Rupee is different from cryptocurrency in that it is issued by the RBI and backed by the government. It also has more stringent regulations than cryptocurrency. Additionally, it will be integrated with existing payment systems such as UPI and IMPS, making it easier for users to access.

Overall, the Digital Rupee offers many advantages over traditional paper currency. It is more secure for payment and settlement as it is a direct liability of the Central Bank and its integration with existing payment systems makes it more accessible. Furthermore, its issuance by the RBI ensures that it is regulated and backed by the government.

2.3 Disadvantages of Digital Rupee
The Digital Rupee (e₹ or e INR) is India's accepted version of cryptocurrencies, which is touted as being safer than other forms of digital currency. It is a fungible legal tender for which holders need not have a bank account. The e – Rupee system has the potential to be more inclusionary than other forms of digital currency, but its success hinges on its digital infrastructure. However, there are some drawbacks to the digital rupee system. These include disruption to the banking system when interest rates are low and potential risks associated with issuing a Central Bank Digital Currency (CBDC). Additionally, there may be security concerns related to the storage and transfer of digital rupees.

3. DIGITAL RUPEE VS UPI/CRYPTOCURRENCY

3.1. Digital Rupee Vs UPI
The Reserve Bank of India's digital rupee (e₹) and the Unified Payments Interface (UPI) are two different payment systems. The main difference between them is that the e₹ is a digital form of paper money, while UPI is a platform to facilitate banking transactions. The e₹ is a legal tender issued by the central bank in digital form, akin to sovereign paper currency. It is designed to be anonymous, just like cash payments. On the other hand, UPI payments are made from a handle and all transactions can be traced back to the sender. Additionally, UPI allows for instant transfers between two bank accounts without having to enter account details or IFSC codes.

Overall, both systems have their own advantages and disadvantages. The e₹ provides anonymity and convenience for users, while UPI offers more security and traceability.

3.2. Digital Rupee Vs Cryptocurrency
Digital Rupee is the electronic from of cash issued by the central bank, while cryptocurrency is a decentralized digital currency that requires cryptography and no central authority to manage its balances and ledgers. Digital Rupee uses a private blockchain, while cryptos operate on a public blockchain. Digital Rupee cannot be treated as an investment like cryptos.

4. Types of RBI Digital Rupee, Risk faced and Challenges in implementation of Digital rupee by RBI

4.1. Types of RBI digital rupee to be launched in India
The Reserve Bank of India (RBI) will launch two types of digital rupee: Digital Rupee for Wholesale (e₹-W) catering to financial institutions for interbank settlements and Digital Rupee for Retail (e₹-R) for consumer and business transactions. The digital rupee is the central bank digital currency, India's accepted version of cryptocurrencies being touted as safer.

4.2. Risks faced by the Indian Digital Rupee
The risks of Indian Digital Rupee (e₹-R and e₹-W) include the need for a robust legal framework to back the issuance of e₹ as another form of currency, as well as trust, safety and settlement finality guaranteed by the RBI.

4.3. Challenges in Implementation of Digital Rupee by RBI

The challenges in implementation of digital rupee (e₹-R and e₹-W) by the Reserve Bank of India (RBI) include technological challenges such as creating new opportunities and lessening the burden of handling, printing and distributing physical currency as well as ensuring that the CBDC is exchangeable one-to-one at par with the fiat currency and creating an additional option to use money without competing with cryptocurrency.

5. IMPACT OF DIGITAL RUPEE ON:

5.1. **Indian Economy:** The impact of Indian digital rupee (e₹-R and e₹-W) on the Indian economy is expected to be positive, with the potential to revolutionize the Fintech sector, provide an additional option to use money without competing with cryptocurrency and enable customers and merchants to make payments digitally. However, there are also risks associated with the implementation of CBDCs, such as the potential for private currencies to compete with e₹-R.

5.2. **Indian Consumer:** The introduction of Indian digital rupee (e₹-R and e₹-W) is expected to benefit Indian consumers by providing them with an additional option to use money without competing with cryptocurrency, enabling customers and merchants to make payments digitally and allowing them to access the digital rupee through the RBI's Digital Rupee platform. However, there are also risks associated with the implementation of CBDCs, such as the potential for private currencies to compete with e₹-R.

5.3. **Indian Banking Sector:** The introduction of Indian digital rupee (e₹-R and e₹-W) is expected to have a positive impact on the Indian banking sector by providing an additional option for customers to use money without competing with cryptocurrency, enabling customers and merchants to make payments digitally and allowing them to access the digital rupee through the RBI's Digital Rupee platform. The pilot project will also test the robustness of the entire process of digital rupee creation, distribution and retails usage.

6. DISCUSSION

The Digital Rupee (e₹) or e INR, launched by the Reserve Bank of India (RBI), is a major step towards the future of digital payments in India. As a central bank digital currency (CBDC), it offers several key features and advantages over traditional paper currency and cryptocurrencies. The RBI has issued guidelines on how to use the digital rupee, which will be stored in digital wallets offered by participating banks and accessible through mobile devices.

One of the major advantages of the digital rupee is its safety, being a direct liability of the central bank. Additionally, the e-rupee system has the potential to be more inclusionary than other forms of digital currency, proving an additional option for financial transactions. The RBI's Concept Note highlights the key objectives of issuing the CBDC, including increasing financial inclusion, reducing transaction costs and improving efficiency.

However, there are also some potential drawbacks to the e-rupee system. The digital infrastructure must be robust to ensure success and there are security concerns related to the storage and transfer of digital rupees. Additionally, there may be risks associated with issuing a CBDC such as disruption to the banking system when interest rates are low.

The Digital Rupee and the Unified Payments Interface (UPI) are two different payment systems in India. The main difference between them is that the e₹ is digital form of paper money, while UPI is a platform to facilitate banking transactions. The e₹ is designed to be anonymous, just like cash, while UPI transactions can be linked to bank accounts and provide a higher level of transparency.

The need for Indian digital rupee (e₹-R and e₹-W) is to provide an additional option for customers to use money without competing with cryptocurrency, enable customers and merchants to make payments digitally and allow them to access the digital rupee through the RBI's Digital Rupee platform. The pilot project will also test the robustness of the entire process of digital rupee creation, distribution and retail usage.

7. CONCLUSION

The launch of the Digital Rupee in India represents a major milestone in the country's journey towards a more secure, efficient and inclusive financial system. The RBI's issuance of a Central Bank Digital Currency (CBDC) provides a new option for conducting transactions and has the potential to increase financial inclusion, reduce transaction costs and improve efficiency. The Digital Rupee has several advantages over traditional paper currency and cryptocurrencies including its central bank backing, stringent regulations and integration with existing payment systems such as UPI.

However, there are also some challenges associated with the issuance of a CBDC including disruptions to the banking system, security concerns and potential risks. The success of the digital rupee system will depend on the development of its digital infrastructure and the ability of the RBI to address these challenges.

In conclusion, the Digital Rupee has the potential to transform the future of payments in India and to provide new opportunities for financial transactions. It is important for stakeholders including the RBI, participating banks and users to work together to ensure the success of the digital rupee and to promote its widespread adoption.

8. SUGGESTIONS

❖ The RBI and the government should focus on expanding the digital infrastructure and increasing awareness about the Digital Rupee among users. This will help increase financial inclusion and ensure the success of the Digital Rupee.

❖ The security measures used to protect the Digital Rupee should be regularly reviewed and updated to keep pace with the changing threat landscape.

❖ The RBI could consider incentivizing merchants to accept the Digital Rupee such as through lower transaction fees compared to traditional payment methods.

❖ The government and the RBI could consider partnering with tech companies to provide a seamless experience for users including through the development of a mobile application.

❖ The RBI could consider collaborating with other central banks to share best practices and knowledge on digital currencies, particularly regarding their implementation and regulation.

❖ The RBI and the government should conduct thorough research and risk assessments to ensure the success and stability of the Digital Rupee.

REFERENCES

1. https://www.forbes.com/advisor/in/investing/digital-currency-in-india/

2. https://en.wikipedia.org/wiki/digital_rupee

3. https://economictimes.indiatimes.com/wealth/save/digita-rupee-do-you-need-a-bank-account-to-send-rbi-e-rupee/articleshow/96444341.cms

4. https://cleartax.in/s/how-to-buy-and-use-digital-rupee-ib-india

5. https://www.hindustantimes.com/opinion/digital-rupee-can-transform-india-s-financial-transactions-101671588227755.html

6. https://indianexpress.com/article/explained/explained-economics/digital-rupee-pilot-project-launching-on-december-1-what-is-it-and-how-will-it-work-8296610/

7. https://economictimes.indiatimes.com/wealth/save/what-is-rbi-digital-rupee-important-features-how-it-is-different-from-cryptocurrency/articleshow/95875376.cms

8. https://www.ndtv.com/business/resersve-bank-of-india-digital-currency-e-rupee-rbi-to-launch-retail-digital-rupee-on-december-1-on-pilot-basis=3563017

9. https://indianexpress.com/article/explained/explained-economics/e-rupee-india-digital-currency-explained-8301325/

10. https://stableinvestor.com/2023/01/digital-rupee-e-rupee-india.html

11. https://news.cleartax.in/how-to-buy-and-use-digital-rupee-in-india/8697/

12. https://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=&ID-1218

13. https://www.valueresearchonline.com/stories/51932/advantages-and-disadvantages-of-e-rupee

14. https://hoit.uk/cryptocurrency/digital-dosh/?utm_source=rss&utm_medium=rss&utm_campaign=digital-dosh

15. https://timesofindia.indiatimes.com/business/faqs/banking-faqs/how-is-digital-rupee-different-from-upi/articleshow/96683930.cms

16. https://www.hindustantimes.com/business/explained-how-e-rupee-is-different-from-upi-rbi-governor-explains-9664491.htm**.**

17. https://businesstoday.in/latest/economy/story/cbdc-vs-upi-what-differences-did-rbi-governor-shaktikanta-das-note-about-erupee-355564-2022-12-07

18. https://businesstoday.in/personal-finance/news/story/how-is-rbis-digital-rupee-different-from-cryptocurrency

19. https://pib.gov.in/Pressrelease1framePage.aspx?PRID-1882883

20. https://www.idfcfirstbank.com/finfirst-blogs/finance/digital-rupee-impact-on-indian-economy

21. https://techcruch.com/2023/02/02/india-retail-reliance-cbdc-digital-rupee-stores/

UNLOCKING CONSUMER INSIGHTS: THE POWER OF CONSUMER ANALYTICS

Darshankumar Patel[1] and Basweshwar Jirwankar[1]

[1]Assistant Professor, Department of Civil Engineering, SVKM's Institute of Technology, Dhule, Maharashtra, India

ABSTRACT

Consumer analytics is a fast-growing area that uses data-driven methodologies to get useful insights into customer behaviour and preferences. The significance, methodology, and ramifications of consumer analytics in the current corporate environment are briefly summarized in this paper. Organizations are aware of the necessity of deeply comprehending their clients in an age of data abundance. Businesses may analyse huge datasets using consumer analytics, which is frequently made possible by cutting-edge technology like machine learning and artificial intelligence. This allows them to spot patterns, trends and correlations that were previously undetectable. Companies may create tailored experiences, improve marketing strategies, and raise customer happiness by studying consumer interactions, transaction histories, social media participation, and other digital footprints. The essential approaches used in consumer analytics, such as data collection, pre-processing, the process of segmentation and predictive modelling, are discussed in this paper. Additionally, it emphasizes the moral issues involved in gathering and using consumer data, highlighting the significance of ethical data management and privacy protection. The potential for consumer analytics is enormous across numerous businesses. Retailers can adjust their product offerings to customer preferences by optimizing their inventory control and supply chain operations. By examining transaction data, financial organizations can more accurately determine credit risk and spot fraudulent behaviour. Additionally, this paper talks on how consumer analytics affects society more broadly, including how it influences consumer behaviour and how it can make data security and privacy issues stronger. In this changing environment, ethical considerations and legal frameworks are crucial elements.

Keywords: Consumer, Analytics, Big Data

1. INTRODUCTION

Three stages can be distinguished in the study of consumer behavior: the embryonic stage, the practical stage, & the transformational and developmental stage. The field's origins date back to the late the 19th and beginning of the 20th centuries. American sociologist Veblen first published his "Theory of the Leisure Class" in 1899, introducing the idea of conspicuous consumerism and its societal ramifications. Psychologist Scott stressed the value of psychology's application to sales and advertising in a December 1901 lecture at Northwestern University. Based in part on a three-part analysis of consumer behavior, Copeland suggested a classification system for consumer goods in 1923, grouping them into convenience goods, shopping goods, and specialized goods. Through the economic downturns of the 1930s and the Second World War in the 1940s, the study of consumer behavior saw significant development. Researchers studying consumer behavior motivations worked in the 1940s and 1950s. Mason Haier studied instant coffee back in 1950. And in an effort to discover practical strategies for persuading customers to consistently select a particular brand, American scholars Cuesta and Brown began researching consumer brand loyalty. Reference group research was done by scholars like M. Sherif, Harlod H. Kelley, and Shibutoni. Maslow's notion of the hierarchy of needs was put forth at this point.

In 1960, the Consumer Psychology Division was established within the American Psychological Association, marking the establishment of consumer behaviour as a discipline. James et al. from Ohio State University authored and released the pioneering consumer behaviour textbook, "Consumer Behaviour," in 1968. In 1969, the Association for Consumer Research was officially founded in the United States. In 1974, the Journal of Consumer Research (JCR) was launched. Raymond Bauer's paper at Harvard University in 1960 played an important role in challenging the assumption of consumers' high rationality. He argued that consumers' actions would always lead to outcomes they cannot be completely certain about. Rogers conducted research on innovation adoption and diffusion. Lavidge and Steiner conducted research on advertising effectiveness. Fischbein and others conducted research on organizational behaviour. Sheth and others conducted research on organizational buying behaviour and consumer rights protection. Cox etal. conducted research on managing perceived risk. Prominent e-commerce platforms have adopted big data analytics technology as a standard practice in recent years. Additionally, big data analytics technology can also help e-commerce platforms optimize pricing, inventory management, and supply chain distribution, enhancing operational efficiency and profitability. In the retail industry, by analysing data on consumer shopping habits, spending power, and brand preferences, retailers can better adjust product display locations, promotional strategies, and marketing

activities, thereby increasing sales and customer satisfaction. Furthermore, big data analytics technology can be applied in industries such as finance, healthcare, and tourism. In the field of finance, personalized financial advice and risk assessments can be provided by analyzingconsumer financial data and investment behaviour. In healthcare, personalized treatment plans and health management advice can be offered by analysing patient medical records, genetic data, and lifestyle habits. In the tourism sector, personalized travel recommendations and customized itineraries can be provided by analysing consumer travel preferences and social media data.

"The Power of Consumer Analytics" explores the transformative impact of data analytics in understanding consumer behaviour and preferences. This field harnesses the vast amount of information generated by consumer interactions, purchases, and online activities to derive invaluable insights. By employing advanced analytical techniques, businesses can uncover patterns, trends, and correlations within this data to make informed decisions, personalize experiences, and optimize strategies. This book delves into the methodologies, tools, and strategies that leverage consumer analytics to drive business growth, enhance customer relationships, and stay ahead in today's dynamic market landscape. Consumer analytics is like having a magnifying glass for understanding the wants and needs of your audience

2. LITERATURE REVIEW

Recent advancements in technology have transformed the landscape of accessing consumer data, bringing about significant changes in the competitive environment and reshaping markets and marketing strategies. According to Statista (2020), global data creation, recording, duplication, and utilization reached around 59 thousand gigabytes in 2020 and is projected to surpass 149 zettabytes by 2024. The escalating availability of vast and diverse data poses lucrative commercial prospects, yet concurrently introduces new challenges for businesses in terms of preparation, handling, and deriving value from the data (Erevelles et al., 2016; Shah and Murthi, 2021; Sivarajah et al., 2017).

As a consequence, mastering the collection, comprehension, and utilization of these abundant information resources within managerial processes has become imperative for competitiveness in present and future business environments (Shah and Murthi, 2021; Sheth and Kellstadt, 2021). Consumer data, encompassing personal, behavioral, psychological, and demographic information from consumer databases (Law Insider, 2021), has become a vital aspect of competition as corporations harness increased access to databases for more effective user targeting.

Furthermore, the rising accessibility to user data provides insights into evolving customer attitudes, behaviors, and preferences over time, reflecting changes in the customer life cycle and surrounding circumstances as they engage with businesses (Zhang & Chang, 2021). The collection and utilization of consumer data have thus become pivotal for companies aiming to comprehensively understand their clientele. However, the analysis of consumer behavior has become more complex with the advent of new technologies and diverse customer touchpoints (Erevelles et al., 2016; Vlačić et al., 2021).Recent literature contributions have explored various data-related topics, such as large-scale data, unstructured data, and data analytics, but they often lack a macro-level understanding of the role of customer data in marketing amid technological developments. Therefore, a comprehensive understanding of how customer data functions in marketing is crucial to mitigate complexity and prevent potential improper opportunity exploitation (Humphreys & Wang, 2018). Our objective is to provide an integrative framework through an up-to-date examination of consumer information usage in academic studies, focusing on how consumers disclose data (declarative vs. non-declarative consumer data) and how companies leverage this data for a consistent and unique competitive advantage. We utilize corpus linguistics methodological tools (McEnery & Hardie, 2013) to identify commonly used subjects, keywords, and their evolutionary patterns.

3. WHY?

Consumer analytics is essential because it provides businesses with invaluable insights into consumer behaviour, preferences, and trends. Here are a few reasons why it's so crucial:

1. **Understanding Customer Behaviour:** Consumer analytics helps in understanding how customers interact with products, services, and brands. It reveals patterns in purchasing behaviour, preferences, and decision-making processes.

2. Personalized Experiences Businesses can customise their offers to individual interests by evaluating customer data. This personalization improves customer satisfaction and fosters loyalty.

3. **Predictive Insights:** Analytics enables businesses to predict future trends, allowing them to anticipate market shifts and consumer demands. This proactive approach helps in staying ahead of the competition.

4. **Optimizing Marketing Strategies:** The best marketing channels and messaging can be found with the use of consumer analytics. It enables businesses to optimize their marketing ROI and deploy resources effectively.

5. **Product Development:** Businesses can create goods and services that better satisfy customers by learning about their preferences and pain spots. As a result, there is less chance of releasing unsuccessful items.

6. **Improved Customer Service:** Analytics assists in recognizing typical difficulties that clients encounter, allowing companies to offer superior customer assistance and address issues more successfully.

7. **Decision Making:** It offers statistical information for strategic decision-making in a range of corporate domains, including pricing and inventory control.

8. To put it simply, the strength of consumer analytics is in its capacity to convert unstructured data into insightful knowledge that helps companies make wise decisions, enhance customer experiences, and spur expansion.

Consumer analytics refers to the use of data analysis techniques and tools to understand consumer behaviour, preferences, and trends. Its theoretical background draws from various disciplines, primarily:

- **Consumer Behavior Theory:** This theory explores how individuals or groups select, pay for, use, or reject products, ideas, or events in order to satisfy their needs and desires. It is based on sociology and psychological studies. It include investigating components such as motivation and perception., learning, views, and cultural influences that affect how consumers make decisions.

- **Data Sciences and Analysis:** This field includes computational, statistical, and machine learning approaches used to draw conclusions from data. These approaches play a major role in the processing of large amounts of consumer-related data, such as transaction history, browsing patterns, internet interactions, and demographic data, in consumer analytics.

- **Marketing and Business Strategy:** The theoretical underpinnings of consumer analytics are deeply rooted in marketing and business strategy. Concepts such as market segmentation, targeting, positioning, and customer relationship management (CRM) play crucial roles in leveraging consumer analytics to tailor products, services, and marketing campaigns to specific consumer segments.

- **Economics and Decision Sciences:** Consumer choice theory, which looks at how consumers use their resources to maximize utility, is aided by theoretical frameworks from economics. The study of decision-making processes, particularly the influence of risk and uncertainty on consumer decisions, is one way that decision sciences contribute.

- **Technology and large Data:** The theoretical underpinnings of consumer analytics have been profoundly influenced by the emergence of large data and sophisticated technologies. The capacity to gather, handle, and evaluate enormous volumes of organized and unorganized information from several sources has revolutionized how companies comprehend and forecast customer behavior.

Combining these disciplines forms the theoretical backbone of the power of consumer analytics, allowing businesses to:

1. **Predict Trends:** By analysing historical data and patterns, businesses can forecast consumer behaviour and anticipate market trends.

2. **Personalize Offerings:** Consumer analytics enables personalized marketing strategies, product recommendations, and tailored experiences based on individual preferences and behaviours.

3. **Optimize Business Strategies:** Insights derived from consumer analytics help in optimizing pricing, distribution channels, inventory management, and overall business strategies to better meet consumer demands.

Businesses looking to use consumer analytics to improve customer happiness and acquire an edge in the market must comprehend these theoretical underpinnings.

4. CONSUMER DATA'S IMPACT IN MARKETING
Consumer data plays a crucial role in modern marketing strategies.

1. **Understanding customer Behavior:** Data facilitates the analysis of trends, preferences, and patterns in customer behavior by marketers. This knowledge helps in developing customized and targeted marketing efforts that appeal to particular target demographics.

2. **Personalization:** With data, marketers can personalize their messages and offerings based on consumer demographics, behaviours, and past interactions. Such customized strategy improves user satisfaction & enhances overall likelihood of sales.

3. **Targeted Advertising:** Data allows for precise targeting. Marketers can segment audiences based on various parameters like age, location, interests, and browsing history. This targeting minimizes wasted resources and maximizes the impact of advertising efforts.

4. **Improved ROI:** By leveraging consumer data, marketers can measure the effectiveness of their campaigns more accurately. As a result, they may optimize their tactics for higher returns on investment (ROI) and manage resources more effectively.

5. **Product Development:** Consumer data provides valuable insights into what consumers want and need. Companies can use this information to develop products or enhance existing ones that better meet consumer demands, leading to increased satisfaction and loyalty.

6. **Predictive Analysis:** Predictive modeling, made possible by data analytics, gives marketers the ability to project future trends, customer behavior, and market shifts. Being a step above the competition and making proactive decisions are made easier with this foresight.

4.1 HOW ANALYTICS MADE CUSTOMER REALTIONSHIP MORE VALUABLE

Analytics has revolutionized customer relationships by providing businesses with deep insights into customer behaviour, preferences, and needs. Here's how analytics has made customer relationships more valuable:

- **Personalization:** Analytics allows businesses to understand individual customer preferences through data analysis. This knowledge enables personalized recommendations, targeted marketing, and tailored experiences, fostering stronger relationships by showing customers that you understand and cater to their specific needs.

- **Predictive Insights:** By analysing past behaviours, analytics can predict future actions. Anticipating customer needs and behaviours enables proactive engagement, such as offering timely recommendations or resolving issues before they escalate. This proactive approach enhances customer satisfaction and loyalty.

- **Improved Customer Service:** Analytics can identify patterns in customer complaints, feedback, or inquiries. This data helps in optimizing customer service strategies, streamlining processes, and creating self-service solutions, leading to quicker and more effective issue resolution.

- **Enhanced Product Development:** Developing goods and services that better suit the demands of customers requires an understanding of their behavior and preferences. By using analytics-driven insights, organizations may keep ahead of evolving customer expectations by identifying gaps in the market or opportunities for improvement.

- **Segmentation and Targeting:** Analytics makes it easier to divide up a consumer base into categories according to their preferences, behavior, or demographics. By sending the appropriate message to the correct audience, segmentation enables customized marketing efforts that raise interaction and conversion rates.

- **Loyalty and Retention Programs:** Analytics assists in identifying customers who are at risk of leaving or are inclined to do so. With this information, companies may create loyalty programs and targeted incentives as retention tactics to keep customers interested and committed to their brand.

- **Optimized Marketing ROI:** By analysing customer behaviour and responses to marketing efforts, businesses can allocate resources more effectively. This optimization leads to higher returns on marketing investments by targeting the most promising avenues for customer acquisition and retention.

4. METHODOLOGY USED FOR CONSUMER ANALYTICS:

Consumer analytics is a powerful tool for businesses to understand their customers better, make informed decisions, and improve overall performance. Here are some key principles and aspects related to consumer analytics:

1. **Data Collection:** Compile information from a range of sources, such as social media, transactions, consumer interactions, demographics, and more. Both organized and unstructured data—such as customer evaluations and sales figures—are involved in this.

2. **Data Integration:** To get a complete picture of the client journey, combine data from several sources. A comprehensive understanding of consumer behavior is made possible by this combination.

3. **Segmentation:** Create discrete groupings among customers according to traits or actions in common. Personalized experiences and targeted marketing are made possible via segmentation.

4. **Predictive Analytics:** Project future trends and behaviors using statistical techniques and machine learning. Predictive modeling, sales forecasting, churn detection, and other tasks fall under this category.

5. **Behavioural Analysis:** Recognize the patterns and behaviors of customers. To gain insights, examine how customers engage with goods, services, and marketing initiatives.

6. **Personalization:** Adapt goods, services, and advertising tactics to the unique needs and preferences of each client. Customization improves consumer satisfaction and encourages adherence.

7. **Real-Time Analytics:** Make quick judgments by using data in real-time. Real-time monitoring of social media activity and website interactions may be part of this.

8. **Reporting and Visualizations:** Data should be presented in formats that are simple to grasp, like charts, graphs, and dashboards. This increases accessibility to complex information, which helps with decision-making.

9. **Ethical Aspects:** Guarantee customer confidentiality and information safety. Respect moral principles and laws pertaining to the use of customer data.

10. **Continuous Improvement:** Consumer analytics is an iterative process. Continuously evaluate and refine strategies based on new data and changing consumer behaviours.

11. Implementing these principles effectively can help businesses harness the power of consumer analytics to drive growth, enhance customer satisfaction, and stay competitive in the market.

6. CO-CREATION AND DECISION MANAGEMENT

Co-creation and decision management are crucial aspects of consumer analytics, especially in understanding consumer behaviour and making informed business decisions. Let's break it down:

Co-Creation in Consumer Analytics:

Co-creation involves collaborating with consumers or end-users in the development of products, services, or strategies. In consumer analytics, co-creation typically involves:

- **Data Collection:** Engaging consumers to willingly provide data through surveys, feedback forms, or participation in studies.

- **Insight Generation:** Involving customers in the interpretation of data or insights to learn more about their requirements, preferences, and actions.

- **Product/Service Development:** Utilizing consumer insights to co-create or customize products/services that align with consumer desires.

Decision Management in Consumer Analytics:

Decision management refers to the process of utilizing data and insights to make effective and informed decisions. In consumer analytics, this involves:

- **Data Analysis:** Examining consumer data to derive actionable insights and patterns.

- **Decision Making:** Using analytical insights to make decisions regarding marketing strategies, product development, pricing, and customer experience improvements.

- **Implementation and Monitoring:** Implementing decisions and continuously monitoring their impact on consumer behaviour and business performance.

Importance of Co-Creation and Decision Management:

1. **Enhanced Understanding:** Co-creation helps in obtaining more accurate and comprehensive consumer insights, leading to better decision-making.

2. **Consumer-Centric Approach:** Involving consumers in the process ensures that products or services are aligned with their preferences, fostering stronger relationships.

3. **Agile Decision-Making:** Analysing consumer data in real-time allows for quick adjustments in strategies to cater to evolving consumer needs.

4. **Competitive Edge:** Effective decision management based on consumer analytics can give businesses a competitive advantage by staying ahead in the market.

Combining co-creation and decision management in consumer analytics allows companies to not only understand their consumers better but also tailor their offerings to meet their evolving demands. This iterative process creates a more dynamic and consumer-centric business environment.

7. Case Studies and Real-World Instances of Big Data's Assistance in Staying Ahead of the Competition

Quick decisions based on data can be the key to a successful business. Many firms turn to data analytics & business intelligence to gain a competitive edge in the face of fierce global competition, maintaining high customer expectations, and navigating marketing obstacles. Business intelligence includes things like using data to deliver tailored advertisements based on browser history, giving all employees contextual access to KPI data, and consolidating data from several departments into a single digital ecosystem to enable more in-depth process reviews. Businesses spend money on data analysis because it can provide them a competitive edge. With the advent of new tools, data is becoming an actionable asset that can be used to advance machine learning. Consequently, businesses are about to leverage data for prescriptive analytics, which will enable them to raise the probability of specific outcomes in addition to making future predictions.

1) Starbucks:

With a global presence spanning 25,000 locations and overseeing 90 million transactions weekly, the leading coffee enterprise is at the forefront of incorporating big data and artificial intelligence into crucial aspects of business decision-making, marketing, and sales support. Starbucks has gathered extensive individual transaction information from millions of customers through its widely embraced loyalty card program and mobile application. By effectively utilizing this data in conjunction with advanced business intelligence technologies, the company anticipates purchasing trends. It employs email and its app to provide customized offers tailored to the specific preferences of customers. This strategic approach not only enriches customer engagement but also boosts sales by encouraging existing patrons to frequent stores more regularly. Going beyond conventional birthday discounts, Starbucks employs a similarly sophisticated approach to suggest new products and issue personalized offers and discounts.

2) Netflix:

An internet entertainment firm possesses a significant advantage in the realm of big data, thanks to its expansive user base of 148 million. The 151 million individuals subscribed to Netflix have digitized their interactions on the platform. By employing data analytics, the company extracts insights from each user, gaining a deep understanding of subscriber behavior and viewing patterns. This information is then leveraged to generate personalized recommendations for movies and TV shows based on individual preferences. Approximately 80% of viewer activities on Netflix are influenced by these personalized algorithmic suggestions. The company's competitive edge lies in its capacity to amass diverse data points, constructing comprehensive member profiles that elevate customer engagement. Netflix attributes more than 80% of consumed content to its recommendation algorithm, contributing significantly to a remarkable $1 billion in revenue generated through customer retention. Consequently, the company reduces expenditures on promotion and sales, accurately predicting audience interest in specific shows.

3) Coca-Cola:

Coca-Cola, the foremost global beverage corporation, distributes a diverse array of over 500 soft drink brands in more than 200 countries. The company accumulates substantial data throughout its value chain encompassing sourcing, production, distribution, sales, and consumer feedback. This data, a product of the company's extensive operations, becomes a valuable resource for making informed and profitable business decisions. To effectively utilize the vast amount of global consumer data, Coca-Cola has made substantial investments in artificial intelligence (AI) research and development. This initiative enhances the company's grasp of consumer trends, including pricing, flavors, packaging, and the rising demand for healthier products in specific regions. Coca-Cola's commitment to leveraging AI extends to monitoring the internet for images of its beverages, providing insights into consumer demographics, locations, and online mentions. The company's substantial presence on social media platforms, with 105 million Facebook likes and 35 million Twitter followers, exemplifies the advantages derived from social media data. Integrating this data with business intelligence

allows Coca-Cola to identify consumers, their locations, and the reasons behind online brand mentions. This data-driven approach not only facilitates targeted advertising but also results in a fourfold increase in click-through rates compared to standard advertisements, delivering more personalized content to customers.In navigating the evolving market landscape, Coca-Cola increasingly relies on AI, data analytics, and business intelligence to shape its strategic decisions. With innovations like the creative free-style fountain machine and a commitment to engaging consumers in novel ways, Coca-Cola is well-positioned to maintain a competitive edge. The company places significant emphasis on Big Data to secure and sustain its competitive advantage in the dynamic digital era marked by evolving consumer behavior.

4) American Express GBT

Amex GBT, which stands for American Express Global Business Travel, is a multinational corporation specialized in managing travel and meeting programs. With a global presence spanning over 120 countries, the company boasts a workforce exceeding 14,000 employees.

Facing Challenges: The company encounters a significant challenge in achieving scalability using the current Business Intelligence (BI) tool. This tool struggles to consolidate around 945 separate data files from internal and customer systems into a unified portal, with an estimated completion time exceeding six months. The previous tool, initially designed for internal purposes, faced difficulties scaling to handle such a large dataset while maintaining cost-effectiveness. Additionally, their existing system had limitations when transitioning to the Cloud, requiring considerable time and manual effort. Ensuring data governance, especially regarding user data security and privacy, is a top priority for Amex GBT.

Proposed Solution: To preserve and expand its market share, Amex GBT aimed to enhance its core services and sought a resource to advance its online travel program capabilities. The company strategically invested in developing intelligent analytics for its reservation software. This involved categorizing trip expenses into three areas—cost, time, and value—allowing consumers to assess their return on investment. Key Performance Indicators (KPIs) specific to each category are used to evaluate the performance of trip plans.

Results: Implementing this approach led to a 30% reduction in travel expenses. The time required for on boarding new users onto the platform was initially a week but has now been streamlined to a single day with Premier Insights, making the process more efficient. The product also identifies available booking offers, notifying users of potential savings on expenditures, including factors such as flight timings, booking dates, and travel dates.

Acceptance: The Premier Insights interactive dashboards, rapid scalability, real-time report implementation, and user-friendly product interface have collectively contributed to the increasing global acceptance of Amex GBT in the online travel sector.

5) Airline Solutions Company: BI Accelerates Business Insights

Airline Solutions offers mobile and web-based tools designed to handle itinerary management, revenue tracking, bookings, and other technological requirements within the travel industry. These services cater to a diverse range of clients, including airlines, hotels, and various businesses. Facing the challenges of the fast-paced and ever-evolving nature of the travel sector, the clients of the airline service provider expressed the need for advanced technologies capable of delivering real-time insights into customer behavior and activities. In response to this demand, Airline Solutions established an enterprise travel data warehouse (ETDW) to efficiently store vast amounts of data. The executive dashboards provide a comprehensive and almost real-time overview of business health, reservations, operational performance, and ticketing, presented through an intuitive interface. The implemented solution includes a scalable infrastructure, graphical user interface, data aggregation, and collaborative working capabilities. As a result, there has been a noticeable increase in revenue and greater client satisfaction.

6) A specialty US Retail Provider: Leveraging Prescriptive Analytics

Challenge/Objective: The objective for a specialized US Retail provider was to update its data platform, enabling the business to make real-time decisions and utilize prescriptive analytics. The goal was to uncover the true value of data generated across multiple systems and comprehend the patterns, both known and unknown, related to sales, operations, and Omni-channel retail performance.

Solution: We contributed to the development of a contemporary data solution that consolidated their data in a data lake and data warehouse, facilitating real-time extraction of value. Our solution seamlessly integrated with their OMS, CRM, Google Analytics, Salesforce, and inventory management system. The data was structured to support Machine Learning algorithms, ensuring future leverage.

Results: From day 1, the customer gained visibility into their data, fulfilling a long-standing desire. Additionally, they expanded their capacity to generate more reports, dashboards, and charts for a deeper understanding and interpretation of the data. In certain instances, they achieved real-time visibility and analysis of in-store purchases based on geography.

7) Logistics start up with an objective to become the "Uber of the Trucking Sector" with the help of data analytics

Challenge: A start up specializing in analysing vehicle and/or driver performance by collecting data from sensors within the vehicle (a.k.a. vehicle telemetry) and Order patterns with an objective to become the "Uber of the Trucking Sector"

Solution:

We developed a customized backend of the client's trucking platform so that they could monetize empty return trips of transporters by creating a marketplace for them. The approach used a combination of AWS Data Lake, AWS micro services, machine learning and analytics.

Results:

- Reduced fuel costs

- Optimized Reloads

- More accurate driver / truck schedule planning

- Smarter Routing

- Fewer empty return trips

- Deeper analysis of driver patterns, breaks, routes, etc.

8) Challenge/Objective: A niche segment customer competing against market behemoths looking to become a "Niche Segment Leader"

Solution: We developed a customized analytics platform that can ingest CRM, OMS, Ecommerce, and Inventory data and produce real time and batch driven analytics and AI platform. The approach used a combination of AWS micro services, machine learning and analytics.

Results:

- Reduce Customer Churn

- Optimized Order Fulfilment

- More accurate demand schedule planning

- Improve Product Recommendation

- Improved Last Mile Delivery

9)Netflix managed to outpace Blockbuster through a combination of innovative strategies and a deep understanding of consumer preferences:

1. Transition to Online Streaming: Netflix recognized the potential of online streaming early on and shifted its business model from DVD rentals to streaming services. This move allowed them to reach a broader audience and offer more convenient access to content.

2. Netflix extensively utilizes data analytics to comprehend viewer habits, collecting information on what users watch, when they watch, the duration of their viewing, and even instances of pausing or rewinding. This data provides valuable insights into consumer preferences, enabling Netflix to offer personalized recommendations and produce original content tailored to specific audience tastes.

3. Netflix's recommendation algorithm examines user behavior to propose movies and TV shows that match individual preferences. This strategy is aimed at keeping viewers interested and fostering prolonged engagement on the platform. Original Content: Netflix began producing its own original content based on the insights gathered from user data. By understanding what genres, actors, and storylines were popular, they created shows and movies that appealed to their audience. This exclusive content attracted subscribers and set Netflix apart from competitors.

4. Global Expansion: Netflix strategically expanded its services globally, customizing its content offerings for different regions. This not only increased their subscriber base but also allowed them to understand and cater to diverse audience preferences worldwide.

5. Adaptability and Innovation: Netflix continuously innovates, adapting to changing consumer behaviour and technological advancements. For example, they invested in high-quality streaming, mobile-friendly interfaces, and partnerships with smart TV manufacturers, making their service more accessible across devices.

In contrast, Blockbuster, while a pioneer in the video rental industry, was slow to adapt to the digital age. They were late in entering the online market and lacked the data-driven approach that Netflix used to understand and cater to consumer preferences. Ultimately, Blockbuster's brick-and-mortar model struggled to compete with the convenience and personalization offered by Netflix's streaming platform.

10) How Tesco Made Online Grocery Shopping Profitable

Tesco, like many other major retailers, made online grocery shopping profitable through various strategies and innovations. Here are several ways Tesco managed to succeed in this realm:

- **Efficient Logistics:** Tesco optimized its supply chain and logistics to handle online orders effectively. They streamlined their processes to pick, pack, and deliver groceries swiftly, reducing costs and improving efficiency.

- **Technology Integration:** Tesco invested in robust technological solutions, including user-friendly websites and mobile apps, making it convenient for customers to order groceries online. They also used data analytics to understand customer preferences and optimize inventory.

- **Delivery Models:** Offering various delivery models, such as home delivery and click-and-collect services, gave customers flexibility in receiving their orders. This adaptability catered to different consumer needs and preferences.

- **Subscription Services:** Introducing subscription-based services or loyalty programs encouraged repeat purchases and customer retention. Tesco's Club card, for example, offered rewards and personalized deals to frequent shoppers.

- **Product Diversification:** Expanding their product range beyond groceries to include household items, clothing, electronics, and more allowed Tesco to increase the average order value and tap into different market segments.

- **Strategic Partnerships:** Collaborations with delivery service providers or tech companies helped Tesco extend its reach and improve delivery capabilities. Partnering with third-party services also provided additional revenue streams.

- **Customer Service Focus:** Prioritizing excellent customer service, resolving issues promptly, and ensuring a seamless shopping experience were key in retaining customers and fostering positive reviews and recommendations.

- **Marketing Strategies:** Tesco used targeted marketing campaigns, promotions, and discounts to attract new online customers and retain existing ones. Personalized offers based on shopping habits also contributed to increased sales.

By combining these approaches and continuously innovating to meet evolving customer needs, Tesco successfully turned online grocery shopping into a profitable venture.

CONCLUSION

Understanding consumer behavior is crucial for businesses aiming to enhance customer experiences and achieve success. Employing data-driven strategies enables businesses to grasp client preferences, fostering the creation of personalized experiences. In today's fiercely competitive market, companies prioritizing customer satisfaction through data-driven initiatives can establish enduring relationships and foster growth. Organizations can harness consumer data to craft individualized, targeted experiences, pleasing customers and fostering growth. The data offers comprehensive insights into the target population, empowering businesses to map consumer journeys, improve products and services, and launch focused marketing efforts. These insights encompass new markets, brand engagement, sales conversions, and competitive analysis.

Improving Product/service Offerings: Gaining consumer insights provides marketers with a holistic understanding of their target audience, including demographics and purchasing behaviors. Brands can continually evolve by comprehending customer preferences, feedback, reactions, and product or service acceptance. Analysing performance data yields valuable insights for product enhancement and development. Understanding customer behavior allows firms to adjust their messaging and create targeted marketing campaigns. A customer-centric approach to product evolution, based on feedback, cultivates strong relationships and boosts customer satisfaction. Leading consumer-tech companies regularly refine their offerings in response to client feedback. Monitoring the success of products, services, and campaigns enables firms to identify areas for improvement and adapt their plans.

Identifying new Markets: Deeper consumer insights go beyond demographics, providing crucial information on emerging market demand. Brands can formulate informed market strategies by analysing consumer choices, suggestions, reactions, and product/service acceptance. Anticipating market trends allows brands to more accurately forecast success and discover previously overlooked target groups. For instance, a fast-moving consumer goods (FMCG) brand might tailor product versions for different countries based on client feedback.

Brand Engagement and Awareness: Analysing integrated data allows brands to gain a deeper understanding of their customers and design more effective advertising and engagement strategies. These insights reveal the brand's current position and perception within the target demographic, along with emerging trends. Companies that comprehend their consumers' preferences can design customized public relations and influencer campaigns that resonate with their audience. For example, a fashion firm may utilize consumer information to optimize its advertising and engagement campaigns on Instagram, prioritizing it over Twitter to attract a larger audience.

Enhancing Sales Conversion: Effective marketing methods directly contribute to increased sales conversions. Businesses can design targeted marketing strategies that lead to successful customer acquisition by first understanding their customers' needs, aspirations, and expectations. Personalized sales experiences, tailored to a brand's specific target group, can boost conversions and revenue. In essence, a well-planned marketing strategy and successful customer acquisition result in a rise in sales conversions.

Competitor Awareness: Through customer experience analytics, firms can gain a comprehensive understanding of their competitors' marketing strategies, market perception, customer engagement tactics, and any existing gaps. To maintain a competitive edge, continual monitoring, tracking, and analysis of competitors are essential. Start-ups often disrupt industries by recognizing and addressing previously unmet needs. Companies can leverage this knowledge to keep their products and services competitive and up-to-date, building on competitors' strengths and addressing their weaknesses. This knowledge is crucial in developing effective strategies to provide organizations with a competitive advantage in the marketplace.

8 A Prospective Research Plan for Utilizing Consumer Data in Marketing.

The future of consumer data in marketing holds vast potential for refining strategies and understanding consumer behaviour. Here's an outline for a future research agenda in this domain:

1. **Ethical Frameworks and Privacy Concerns**:
- Explore evolving ethical standards and regulatory landscapes in handling consumer data.

- Investigate ways to balance personalization with consumer privacy and data security.

2. **Advanced Data Analytics**:
- Develop cutting-edge algorithms for real-time data analysis to extract actionable insights.

- Integrate AI and machine learning models to predict consumer behaviour accurately.

3. **Contextual Understanding**:
- Research how contextual data (location, environment, socio-economic factors) influences consumer preferences and decision-making.

- Study the impact of various cultural and societal factors on consumer data interpretation.

4. **Omni-channel Consumer Behaviour**:
- Explore how consumers interact across multiple platforms and channels.

- Analyse the impact of seamless experiences on purchasing behaviour and brand loyalty.

5. **Personalization and Customization**:
- Investigate strategies for hyper-personalization without compromising consumer trust.

- Study the effectiveness of personalized marketing in different demographics and industries.

6. **Data Integration and Interoperability**:
- Focus on integrating various data sources for a holistic view of consumer behaviour.

- Explore interoperability challenges and solutions between different data systems.

7. **Long-term Behaviour Prediction**:
- Research methodologies to forecast long-term consumer behaviour changes.

- Explore the implications of such predictions on marketing strategies and consumer engagement.

8. **Data Visualization and Communication**:
- Study effective ways to visualize complex consumer data for decision-makers.

- Investigate how to communicate data insights in a compelling and understandable manner.

9. **Impact of Emerging Technologies**:
- Explore the influence of emerging tech like AR/VR, IoT, and block chain on consumer data collection and interpretation.

- Investigate the potential for new data sources and data streams from these technologies.

10. **Consumer Trust and Relationship Building**:
- Research how transparency in data collection and usage affects consumer trust.

- Study strategies to build and maintain long-term relationships based on data-driven insights while respecting consumer privacy.

This agenda seeks to explore further into the complexity of consumer data while keeping a strong ethical and customer-centric focus. It is about using technology to analyse, predict, and respond to consumer requirements while maintaining privacy and trust.

Subhra Bardhan, the Vice President and Head of Consumer Insights & User Research at Kotak Mahindra Bank, emphasizes the widespread interest among colleagues in optimizing the consumer insights function to enhance organizational success. The primary focus is on creating Objectives and Key Results (OKRs) to empower the consumer insight function for organizational advancement. Consequently, I have compiled a set of recommended procedures and OKRs to assist organizations in reaching this objective. To strengthen the impact of the consumer insights function within a business, consider implementing the following practical measures

1. Clearly articulate goals, objectives, and key outcomes (OKRs): Specify the aims and objectives for the Consumer Insights department to ensure alignment with the overall business plan, relevance to key stakeholders, and the achievement of OKRs.

2. Invest in tools and technologies: Expedite research processes, automate data collection and analysis, and provide timely insights by investing in tools for survey design, data visualization, predictive analytics, and other pertinent technologies.

3. Embrace storytelling: Synthesize insights from app data, behavioral data, and primary research, supported by secondary sources and reports. The ultimate objective is to construct a compelling narrative that is both comprehensible and actionable. Despite its apparent simplicity, effectively conveying data and highlighting significant insights can be challenging for individuals and organizations. Therefore, the Consumer Insights team should concentrate on analysis, synthesis, and storytelling, utilizing their inherent ability to communicate impactful narratives. By refining this skill, the team can effectively communicate the value of their findings and facilitate more meaningful business decisions.

REFERENCES
1) M. Bastiaansen *et al.,*My destination in your brain: A novel neuromarketing approach for evaluating the effectiveness of destination marketing,Journal of Destination Marketing & Management,(2018)

2) S. Bazi *et al.,*Customers' motivation to engage with luxury brands on social media,Journal of Business Research.(2020)

3) J. Cao *et al.,*A density-based method for adaptive LDA model selection,Neurocomputing,(2009)

4) L.A. Casado-Aranda *et al.,*A neuropsychological study on how consumers process risky and secure E-payments,Journal of Interactive Marketing,(2018)

5) J. Cebollada *et al.,* Online category pricing at a multichannel grocery retailer, Journal of Interactive Marketing,(2019)

6) Y.J. Cho *et al.,* Popular research topics in marketing journals, 1995–2014, Journal of Interactive Marketing,(2017)

7) F. Ciampi *et al.,* Exploring the impact of big data analytics capabilities on business model innovation: The mediating role of entrepreneurial orientation, Journal of Business Research,(2021)

8) S. Erevelles *et al.,* Big Data consumer analytics and the transformation of marketing, Journal of Business Research,(2016)

9) E.R. Fisher *et al.,* Designing peer-to-peer distributed user interfaces: Case studies on building distributed applications ,International Journal of Human-Computer Studies,(2014)

10) C. Flavian *et al.,* The impact of virtual, augmented and mixed reality technologies on the customer experience, Journal of Business Research,(2019)

11) J. Hindriks *et al.,* Heterogeneity in the tax pass-through to spirit retail prices: Evidence from Belgium, Journal of Public Economics,(2019).

12) S. Hong,Online news on Twitter: Newspapers' social media adoption and their online readership ,Information Economics and Policy,(2012)

13) H. Huang *et al.,* On the design of sponsored keyword advertising slot auctions: An analysis of a generalized second-price auction approach, Electronic Commerce Research and Applications,(2011)

14) J. Huang *et al.,* From brain variations to individual differences in the color–flavor in congruency effect: A combined virtual reality and resting-state fMRI study, Journal of Business Research,(2021)

15) C. Kaiser *et al.,* Social media monitoring: What can marketers learn from Facebook brand photos?, Journal of Business Research,(2020)

16) A.M. Kaplan *et al.,* Users of the world, unite! The challenges and opportunities of social media, Business Horizons,(2010)

17) M. Kastanakis *et al.,* Between the mass and the class: Antecedents of the "bandwagon" luxury consumption behavior, Journal of Business Research, (2012)

18) M. Kastanakis *et al.,* Explaining variation in conspicuous luxury consumption: An individual differences perspective, Journal of Business Research, (2014)

19) B.D. Kim *et al.,* Identifying price sensitive consumers: The relative merits of demographic vs. purchase pattern information, Journal of Retailing,(1999)

20) H. Kim *et al.,* Advertising and word-of-mouth effects on pre-launch consumer interest and initial sales of experience products, Journal of Interactive Marketing, (2017)

21) M. Kim *et al.,* Mobile shopping through applications: Understanding application possession and mobile purchase ,Journal of Interactive Marketing,(2017)

22) M. Krafft *et al.,* Insight is power: Understanding the terms of the consumer-firm data exchange, Journal of Retailing, (2021)

23) V. Kumar, Forecasting performance of market share models: An assessment, additional insights, and guidelines, International Journal of Forecasting, (1994)

24) E.J. Lee *et al.,* How to "nudge" your consumers toward sustainable fashion consumption: An fMRI investigation, Journal of Business Research, (2020)

25) H.H.M. Lee *et al.,* Creative participation: Collective sentiment in online co-creation communities, Information & Management, (2015)

26) X. Li *et al.,* Video mining: Measuring visual information using automatic methods, International Journal of Research in Marketing, (2019)

27) Y. Li *et al.,* Is a picture worth a thousand words? An empirical study of image content and social media engagement, Journal of Marketing Research, (2020)

28) Y. Li *et al.,* Modelling Multichannel Advertising Attribution Across Competitors, MIS Quarterly, (2019)

29) X. Liu, Analyzing the impact of user-generated content on B2B Firms' stock performance: Big data analysis with machine learning methods, Industrial Marketing Management, (2020)

A STUDY ON USING MOBILE PHONES AS A TOOL FOR FINANCIAL INCLUSION IN INDIA

Bhautik S Ruparel

Assistant Professor, PES's Bhausaheb Nene ASC College, Pen-Raigad 402107

ABSTRACT

Mobile banking in India is either smartphone-based or USSD-based, determined by income and literacy (general, financial and digital). As such, increments in financial inclusion through mobile banking can be enjoyed by both low-income individuals and the better-off, among others. With increasing affordability of the mobile handsets and better tariffs, the digital divide has been blurred, created initially by computers and the internet. Out of the total mobile subscription base in India, nearly forty percent belongs to rural areas. The widespread diffusion of smartphones in emerging and developing markets has inspired digital transformation, reduced the informal and undocumented volume of transactions, and increased digital inclusion in India and elsewhere. The mobile banking system is definitely ideal for the remote areas given that it is an easily accessible, cheaper, more convenient and faster means of sending and receiving money. Financial activity is increased in the rural areas and therefore economic growth is boosted. Utilising digital payment systems, mobile banking, and other fintech innovations, financial services have become affordable and easily accessible, reducing transaction costs. The strategy aims to provide access to formal financial services in an affordable manner, broadening & deepening financial inclusion and promoting financial literacy & consumer protection.

Keywords: Financial Inclusion, Mobile, Mobile Banking, Policy Framework

INTRODUCTION

From phone apps to home automation to cashless commerce and beyond, digital disruption is the new normal for consumers today. It's changing what we do—and how we get things done— in countless ways.

"Digital financial inclusion" can be defined broadly as digital access to and use of formal financial services by excluded and underserved populations. Financial inclusion is not a new notion; of late, its importance is being emphasized upon. While Chairing the Committee on Financial Inclusion, Dr.C. Rangarajan, chairperson of Rangarajan Committee stated that "Financial inclusion may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost. "The aim of Financial Inclusion is to provide opportunity to the unbanked population for the access of financial services by drawing them into the formal financial system. This would enable them to have access to savings, payments, credit and insurance. Noted Nobel laureate in Economics. Amartya Sen stated that poverty is the absence of capability and ability to participate in the nation's decision making, rather than just a lack of money. According to Bihari (2011), it is of utmost importance for the people to actively use the basic financial services instead of just having access to it. Only an inclusive economy has the potential of becoming modernized and globalised. Studies show that there has been some concrete progress towards financial inclusion in the world during the past decades. A report titled "Finance for all" released by the World Bank in 2007 states that lack of access to finance is often the critical mechanism behind both persistent income inequality and slow economic growth. On similar grounds a committee called the 'Rangarajan Committee on Financial Inclusion' was set up in India, under the chairmanship of Mr. Rangarajan to recommend certain measures to expand financial inclusion. The 11th Five Year Plan of India adopted "faster and more inclusive growth" as the key development model. The 12th five year plan talks about financial inclusion by connecting rural people with the banking system, post offices and banking correspondents for pay payments, etc. One keyway that fintech can drive financial inclusion is through digitization. By digitizing financial services, fintech companies can reduce the cost of providing these services and make them available to a wider range of people.

Need for Financial Inclusion

A sound monetary framework provides the basic needs of offering funds, emphasizes the imperative need of credit and risk management to individuals with an extensive variety of requirements. A comprehensive and inclusive financial framework permits expansive access to monetary administrations and financial services, with low cost or non-price hindrances to lower income groups and marginalised sections of the society. Failure or absence of such policy framework on financial inclusiveness, leads to income inequality and a diminished economic growth due to non-participation of all members of the economy; it has also been observed that a greater financial inclusion enhances the opportunities of financial stability. Hanning and Jansen (2010), based on evidence, suggest that lower-income participants maintain a stable outlook during financial crisis, as they are not much affected by it. "Financial inclusion broadens the resource base of the financial system by developing a

culture of savings among large segment of rural population and plays its own role in the process of economic development. Further, by bringing low-income groups within the perimeter of formal banking sector; financial inclusion protects their financial wealth and other resources in exigent circumstances" (RBI, 2014).

Mobile Banking as a Means to Achieve Financial Inclusion

According to the World Bank policy research report "Finance for All, 2007", the entire population can be divided into two segments, former being users of financial services and the latter being non-users of formal financial services. The latter one can be further divided into voluntary exclusion or self-exclusion and involuntary exclusion. Voluntary exclusion could be a result of religious, cultural reasons or due to absence of needs for the financial services. Involuntary exclusion consists of those who wish to participate but either lack sufficient income or are unable to do so due to discrimination, information asymmetry, price barriers due to imperfect market etc.

Digital financial inclusion refers to the internet access to use the formal financial services by excluded and underserved population. E-Banking activity in rural India results in increased usage of financial services and improved living conditions due to the technological involvement in financial inclusion

REVIEW OF LITERATURE

The reason behind the advocacy of full-stack digital banks is the lack of credit penetration among MSMEs and the full-stack digital banks are a potential solution for the persistent policy challenge of credit deepening and are seen as "the next stage of financial inclusion Globally, it has been observed that only half of the adults have a bank account, while the remaining ones are unbanked. For instance, keeping in mind that India being an agrarian economy, out of the total farmer families, less than thirty percent has access to formal sources of credit. Also, almost 20 percent of these marginalised people believe that the distance to the bank and infrastructural facility are the two major factors for the absence of these people from the financial market. Across the world, of the 2.5 billion excluded or marginalised people, 1.7 billion people have one thing in common, i.e. a mobile connection (Committee on Financial Inclusion, IDBI Gilts Ltd, 2008).

During the past five years, mobile phone penetration has increased three times in developing countries, with Asia particularly showing high growth rates (Hanning and Jansen 2010). A common phenomenon across the developing countries is that the number of mobile phone connections exceeds the number of bank accounts. India is the second-largest mobile phone user in the world, with over 900 million users as per the Press Information Bureau, Government of India (2012). Given the fact that in India, there are far more mobile phones than personal computers and laptops, implementation of new technologies would be viable on mobiles rather than computers. Thus, it can also be stated that mobile phones, due to their intrinsic 'wireless' feature will have more potential to shrink the gap between rural-urban and rich- poor (Chipchase, 2005). With increasing affordability of the mobile handsets and better tariffs, the digital divide has been blurred, created initially by computers and the internet. Since, E- commerce has not been able to attract most of the population, M-commerce acts as potential tool due to deep penetration of mobile phone usage in India (PWC Pvt. Ltd., 2010).

In September 2014, it was observed that India had close to 930.20 million mobile phones with a monthly cell phone addition of 5.88 million. This, in turn makes the tele-density as 76.75% (TRAI, Press release, November 2014). That makes it close to three fourth of the total population. This statistic eloquently demonstrates that mobile phones have the potential to become the scaffolding for delivering financial services to the "unbanked" population thus helping to achieve the target of financial inclusion.

In India, mobile payment initiatives are being undertaken by public-private association known as the Mobile Payment Forum of India (MPFI). The members of this forum are banks, telecom companies, payment providers, credit card companies and other academic institutes, with a mission "to enable mobile payments in India with secure and low cost transaction" (MPF Website). The minutes of the meeting held in May, 2014, mentioned that in order to increase the number of transactions, there is a need to upgrade to the next level by including the third parties For example, United India Insurance Company (UIIC) has 20 million customers, who

periodically pay premiums. Secondly, demonstrations were held to show the simplified procedure of payment of taxes, school fee, telephone bills etc. in a few regional languages (Tenth general body meeting of the MPFI, 2014). This forum is working on formulating standards that will enable M2P (Machine to Machine) or P2P (Person to Person) payments with the help of mobile phones without the use of cards. Financial inclusion certainly is the main focus here; that is providing electronic payments to those who currently do not have access to them, through mobile phones.

Mobile Banking: Conceptual Model

Mobiles can be used for inclusion specifically in three broad categories - Mobile banking (bill payment or account information), mobile money transfer (P2P) and mobile commerce (Ernst & Young, 2009). Mobile money transfers are P2P applications that use mobile phones to send and receive money across states. In a broader sense, mobile banking refers to "provision and availing of banking and financial services with the help of mobile telecommunication devices The scope of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information" (Mathur and Shrimali, 2010).

The purpose of usage of any services from the above three categories varies depending on the customers' profile, their needs, background; where they belong to, their acceptance to new technology, financial literacy and apart from the individual the mobile technology infrastructure, maturity of financial services and regulatory environment in a given market. Mobile banking services can be used by any of these communication modes such as Interactive Voice Response (IVR), Short Messaging Service (SMS), Wireless Access Protocol (WAP), Stand- alone Mobile Application Clients (Mobile Apps), Unstructured Supplementary Service Data (USSD) and Using SIM tool Kit (STK) (PWC Pvt. Ltd, 2010). According to anecdotal evidence, SMS has been the most widely used communication mode in India. However, mobile banking has its own limitations. Incorporated with the goal of financial inclusion it needs to work on all kind of phones, high end as well as low end. Thus, there is a need of innovation to design the basic services that work on low end phones. Progress towards financial inclusion also increases the exposure of producing more inexperienced, unfamiliar, and vulnerable customers as the products are getting sophisticated, although unbanked customers are entering the market, who are inexperienced and financial illiterate (Hannig and Jansen, 2010). Secondly, users also face risks such as receiving fake/unauthentic SMS messages, this threatens the loss of personal and sensitive information in the case of loss of the handset (Chandran, 2014).

Policies Adopted in India for Financial Inclusion

The Government of India and the RBI have been putting in endeavours to advance monetary incorporation and financial inclusion as one of the national targets. The practical application of this target can be seen in the efforts of the government such as nationalization of banks, building up of strong system of planned scheduled commercial banks, Regional Rural Banks (RRBs), mandated priority sector lending targets, lead bank plans, arrangements for Self Help Groups (SHGs), allowing Business Correspondents (BCs) to be selected by banks to give convenience to customers, issue of Kisan Credit Cards (KCC), General Credit Cards (GCC), zero parity Basic Savings Bank Deposit (BSBD) accounts, and so forth (Financial Inclusion in India - An Assessment, 2014). The major goal of all these activities is to include those segments of the economy that hitherto have been monetarily excluded. A close scrutiny of the concept of mobile banking services brings forth the prospects of mobile banking and its need to the world, especially India. In India, close to three-fourth of the farmer households are financially excluded from the formal credit sources, out of which around 64percent belong to central, eastern, and north-eastern regions. The rural- urban divide is also evident. Empirical evidence shows that there is one bank for every 17,000 people in rural areas and on the other hand, 4700 urban people are served by one branch as of March 2021. A fact by the Government of India Population Census (2011) states that only 58.7percent of households are availing banking services in the country. The rest close to 40 percent of the population either is unbanked or has been left to the mercy of non-formal banking and credit facilities, such as money lenders who charge exorbitant rates of interest.

In 2021, about 78 percent of Indians above 15 years owned an account at a bank. This was a significant change from only 44 percent in 2011. This growth suggests a move towards financial inclusion of marginalized groups within the country - from women to the out-of-labour force, less educated and the poor.

In India, many of the large banks including the State Bank of India (SBI), Industrial Credit and Investment Corporation of India Ltd (ICICI Bank Ltd), (Housing Development Finance Corporation) HDFC Bank Ltd etc have initiated the use of mobile phones as a means of providing financial inclusion, through the SMS services and applications that can be downloaded through the application stores on smart phones for booking railway, airways, movie tickets and other utilities such as knowing the current balance last 3 transactions, activating internet plans and other tariffs etc. The following are the mobile banking solutions available at various banks: ICICI Bank - iMobile, SBI Bank - Freedom, Citi Bank - Citi Mobile, IDBI Bank – IDBI Bank GO Mobile +, etc.

Practices of Mobile Money in India

Vyas (2009) emphasized the great potential of mobile banking in India. He asserts that Indian banks will specifically target those customers who have mobile devices instead of targeting only online banking users who

have regular access to desktop and internet. Gupta (1999); Pegu (2000); Dasgupta (2002) also maintained their opinion on the future of mobile banking in India in their works.

According to a survey conducted on online payments in India in 2020, 31 percent of the households stated that they had mobile banking apps in their smartphones. However, 32 percent of the households stated that they used digital payments in their everyday life.

Digital Transactions in India (Feb 2023)

Government of India is committed to expand digital transactions in the Indian economy, and thereby enhance the quality and strength of the financial sector, as well as ease of living for citizens. Digital payment transactions have significantly increased as a result of coordinated efforts of the Government as a whole, along with all stake holders concerned, from 2,071 crore transactions in FY 2017-18 to 8,840 crore transactions in FY 2021-22 (Source: RBI, NPCI and banks).

During last five years, various easy and convenient modes of digital payments, including Bharat Interface for Money-Unified Payments Interface (BHIM-UPI), Immediate Payment Service (IMPS), and National Electronic Toll Collection (NETC) have registered substantial growth and have transformed digital payment ecosystem by increasing person-to-person (P2P) as well as person-to-merchant (P2M) payments. BHIM UPI has emerged as the preferred payment mode of the citizens and has recorded 803.6 crore digital payment transactions with the value of ₹ 12.98 lakh crore in January 2023.

The total number of digital payment transactions undertaken during the last five financial years and the current financial year are as under:

Financial Year	Total number of digital transactions (in crore) #
2017-18	2,071
2018-19	3,134
2019-20	4,572
2020-21	5,554
2021-22	8,840
2022-23	9,192*

* Data till 31st December2022

Note: Digital payment modes considered are BHIM-UPI, IMPS, NACH, AePS, NETC, debit cards, credit cards, NEFT, RTGS, PPI and others.

Source: RBI, NPCI and banks

The total value of digital payments during the last five financial year and in the current financial year are as under:

Financial Year	Total number of digital transactions (in lakh crore) #
2017-18	1,962
2018-19	2,482
2019-20	2,953
2020-21	3,000
2021-22	3,021
2022-23	2,050*

*Data till 31st December2022

Note: Digital payment modes considered are BHIM-UPI, IMPS, NACH, AePS, NETC, debit cards, credit cards, NEFT, RTGS, PPI and others.

Source: RBI, NPCI and Banks

Growth of Digital Payments in India and availability of various easy and convenient digital payment solutions have facilitated ease of living for citizens, financial inclusion, and growth of business and economy. During the Pandemic, availability of contactless digital payment solutions such as BHIM-UPI facilitated social distancing and continuity of businesses, including small merchants.

TECHNOLOGY

With improvised technology such as Near Field Communications (NFC), the possibility for a better mobile money service is possible. NFC chip is not a new service; it has been used for years stocked inside Debit/Credit cards. This method of wireless data transfer would enable data transmission between devices in close proximity without internet connection. This concept has the power to digitalise wallets. Though it is at its nascent stage, there is resistance from the users and is regarded as lacking personal security. The ramifications of openly exposing unencrypted credit and personally identifying information to strangers may serve unscrupulous commercial interests but is certainly harmful to users. Thus, this technology suffers from resistance but if accepted, has the ability to provide mobile money services the much-needed push. Another important technical advancement is the embedded mobile SIM. The RBI's Technical committee report has suggested that "there is a need for common mobile banking applications and common technological platforms to be built for reaping the benefits of network effects". Similarly, a mandate by Govt. of India is soon going to be issued to all manufacturers and resellers regarding the common applications that may be pre-loaded in the handset.

FEE STRUCTURE

The rates charged are different in these countries. The varying charges depending upon the value of transaction may complicate the offer as potential users may not have clear understanding of the costing. Thus, demonstration of usage and cost calculation would help resolve the issue in India.

The RBI has asked for an opinion on the charges on UPI transactions, and whether charges should:

- Continue to be zero

- Be levied at a subsidised cost

- Be determined by the market.

Further, in the case of charges being introduced, should they be as a percentage of the transaction value or at a fixed amount, irrespective of the transaction amount?

CONCLUSION

The three main advantages include remote services, instant transactions, and more control over the bank account. What are the features of mobile banking? Important features of mobile banking include bill payment, fetching account statements, creating FDs, investing money and making bill payments. The fundamental disadvantages that are of concern are technological issues (as such features are generally available on smart phones, with internet access and small screen size). Thus, there is a need to develop technologies that can work without internet access, such as the SMS service. The second issue is lack of infrastructure (electricity and mobile coverage). The government along with the mobile companies must take steps in this regard as the cost of setting up infrastructure for mobile banking is less than the expenditure required to build more ATMs and banks. Thirdly, lack of trust among customers, which can be resolved by strengthening the regulatory framework and awareness among customers, increasing the levels of financial education, level of literacy etc.

There are various benefits attached to this service, which have potential to offset, to some extent, these hindrances. Mobile money has additional advantages from a public policy perspective. Government can use this facility as a benefit transfer mechanism to respond to disasters and climate change-related events. Digital transfers and payments are making criminal activity more difficult as these are cash- less transactions. Cost savings from printing, replacing, and transporting cash along the value chain are also significant. Fintech companies can help boost competition and accelerate financial inclusion in India by lowering costs and enhancing access to financial services for people in low-income groups, rural areas, and other underserved sectors of the Indian economy.

Mobile banking via smart phones and tablets is one of the technological wonders of recent times. It uses cell phones and PDAs to access banking services via a wireless application protocol. It is growing rapidly and is here to stay. It allows customers to take advantage of the latest advanced technologies. Mobile money has the potential of increasing the wealth of its users. Mobile banking is inevitable for the banks to stay competitive. It has not been adopted to its full potential, leaving plenty of room for improvement.

None of us knows for certain what the future will hold, but we all have a responsibility to be thinking about what's likely to happen, and to prepare for it. In Finance, that means working now to get the right people and technology in place to take advantage of the inevitable disruption ahead. That's not likely to happen without a clear vision and strategy for Finance in a digital world. Now is the time to step back and make sure your roadmap to that future is clear.

REFERENCES

1. Aggarwal, A. (2008). The need for financial inclusion with an Indian perspective. Report prepared by IDBI Gilts Limited

2. Al-Jabri, I., &Sohail, S. (2012). Mobile banking adoption: application of diffusion of innovation

3. Bihari, S. (2011). Growth through financial inclusion in India. Journal of International Business Ethics, 4(1).

4. DiCastri, S., &Muthiora, B. Mobile Money: The Opportunity for India. SSRN Electronic Journal. doi:10.2139/ssrn.2358606

5. Financial Inclusion and Integration through Mobile Payments and Transfer. (2012). In Enhancing Financial Integration through Sound Regulation of Cross-Border Mobile Payments: Opportunities and Challenges. Mumbai, India. Retrieved from http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/ Financial Inclusion_and_Integration_through_Mobile Payments and Transfer.pdf

6. Goyal, V., Pandey, U., &Batra, S. (2012). Mobile Banking in India: Practices, Challenges and Security Issues. International Journal of Advanced Trends in Computer Science And Engineering, 1(2278-3091), 56-66.

7. https://www.niti.gov.in/sites/default/files/2022-07/DigitalBanking07202022_compressed.pdf

8. McKinsey, (2012). Mobile money: Getting to scale in emerging markets.

9. Nandhi, M. (2012). Effects of Mobile Banking on the Savings Practices of Low Income Users - The Indian Experience.

10. Institute Of Money, Technology and Financial Inclusion, 1-18.

11. PricewaterhouseCoopers Private limited, (2022). Mobile Financial Services A compelling solution for financial inclusion in India. [online]

12. Reserve bank of India, (2014). Mobile banking. Reserve Bank of India. Retrieved from https://www.rbi.org.in/ Scripts/Publication Report Details.aspx?UrlPage=&ID=760

13. Singh, C., Mittal, A., Garg, R., Goenka, A., Goud, R., Ram, K., Suresh, R., Chandrakar, R. and Kumar, U. (n.d.). Financial Inclusion in India: Select Issues, SSRN Journal.

14. Vanisree, D. (2013). Mobile Banking in India: Barriers in Adoption and Service Preferences. Indian Journal of Research, ISSN-2250-1991).

A COMPREHENSIVE OVERVIEW OF RECRUITMENT PROCESS AND SELECTION WITH SPECIAL REFERENCE TO IT FIRMS IN INDIA IN MUMBAI REGION

Athira M K[1] and Ashwathi Anilkumar Nair[2]

[1]Assistant Professor and [2]SYBMS, V K Krishna Menon College of Commerce and Economics, Bhandup East

ABSTRACT

This research paper provides a succinct overview of our research on the recruitment process and selection strategies, aimed at enhancing organizational success. We delve into the critical components of recruitment and selection, emphasizing their role in shaping a thriving workforce. In response to the evolving landscape of talent acquisition, this research aims to analyse and optimize the recruitment process and selection strategies within organizations. By understanding the dynamics of these processes, we seek to contribute insights that can lead to improved employee quality and organizational performance. Our study employs a comprehensive review of contemporary literature, incorporating insights from industry best practices and case studies. We explore various recruitment channels, sourcing strategies, and selection methodologies to provide a holistic understanding of the dynamics involved. Our findings highlight the significance of aligning recruitment strategies with organizational goals. We emphasize the need for well-crafted job descriptions, effective use of online platforms, and strategic collaboration with recruitment agencies. Additionally, our research underscores the importance of a rigorous selection process, encompassing resume screening, interviews, and assessments to identify candidates who align with both technical requirements and organizational culture. As organizations navigate the competitive business landscape, our research underscores the pivotal role of an optimized recruitment process and selection strategies. A tailored approach, considering both technical competencies and cultural fit, contributes to employee satisfaction, innovation, and long-term success. We conclude by offering recommendations for organizations to refine their talent acquisition strategies and remain competitive in attracting and retaining top-tier talent.

Keywords: Recruitment process, Selection strategies, Talent acquisition, Organizational success, Human resource management

INTRODUCTION

In the dynamic and competitive business landscape, organizations strive to build a talented and capable workforce that aligns with their strategic objectives. Achieving this goal necessitates a well-defined and structured recruitment process and selection strategy. The recruitment and selection process serves as the gateway for organizations to attract, evaluate, and hire the right candidates who can contribute effectively to the success of the company.

Recruitment Process: The recruitment process is a systematic approach to identifying, sourcing, and attracting qualified candidates for vacant positions within an organization. It typically begins with the identification of a staffing need and involves a series of well-coordinated steps to ensure the right candidates are identified and engaged. The key stages in the recruitment process include:

Identifying Job Openings: Organizations start by identifying the need for a new employee, whether due to expansion, turnover, or skill gaps. HR professionals collaborate with hiring managers to understand the specific requirements and responsibilities of the vacant position.

Job Posting and Advertising: Once the job specifications are determined, organizations use various channels such as job portals, social media, and company websites to advertise the job opening. The goal is to reach a diverse pool of candidates and attract those who possess the necessary skills and qualifications.

Application and Resume Screening: As applications and resumes are received, HR professionals screen them to shortlist candidates based on their qualifications, experience, and alignment with the job requirements. This stage is crucial in narrowing down the pool to a manageable size for further evaluation.

Interviews: Shortlisted candidates are invited for interviews, which may include initial phone screenings, technical assessments, and face-to-face interviews. Interviews serve to assess not only the candidate's technical skills but also their cultural fit, communication abilities, and overall suitability for the organization.

Selection Decision: After the interview process, hiring managers and HR collaborate to make a selection decision. Factors such as skills, experience, cultural fit, and potential for growth are considered. The selected candidate is then extended a job offer, and negotiations may take place regarding salary, benefits, and other terms of employment.

Selection Process: The selection process is an integral part of recruitment, focusing on identifying the most suitable candidate from the pool of applicants. It involves a series of assessments and evaluations to ensure that the chosen candidate aligns with the organization's goals and values. The selection process can include:

Background Checks: Organizations often conduct thorough background checks to verify a candidate's education, employment history, and criminal record. This step helps ensure the accuracy of the information provided by the candidate and assess their trustworthiness.

Reference Checks: Contacting professional references allows organizations to gain insights into a candidate's work ethic, interpersonal skills, and overall performance in previous roles. References provide valuable perspectives that can complement the information gathered during the interview process.

Skills Assessment: Depending on the nature of the position, candidates may be required to undergo skills assessments, tests, or practical exercises to demonstrate their abilities. These assessments provide objective data on a candidate's proficiency in specific areas relevant to the job.

Medical Examination: Some organizations require candidates to undergo a medical examination to ensure they are physically fit for the job. This is particularly important for roles that involve strenuous physical activities or pose specific health and safety concerns.

Conclusion: In conclusion, the recruitment process and selection strategy play a pivotal role in shaping the composition of an organization's workforce. A well-designed and executed process not only attracts high-quality talent but also ensures that the selected candidates are a good fit for the organizational culture and objectives. As businesses evolve, so too must their approaches to recruitment and selection to remain competitive and agile in the ever-changing global marketplace.

Theoretical Framework

A theoretical framework for the recruitment and selection process provides a structured foundation for understanding, analyzing, and improving the various components involved. Here's a general theoretical framework that can be adapted to the context of recruitment and selection in IT firms:

Human Capital Theory:
- Human capital theory posits that individuals bring unique skills, knowledge, and abilities to the workplace. In the context of recruitment and selection, it emphasizes the importance of identifying and acquiring talent that contributes positively to the organization's overall capabilities.

Resource-Based View (RBV):

RBV suggests that a firm's resources, including its human resources, are a source of competitive advantage. In the recruitment and selection process, organizations aim to attract and select candidates with unique and valuable skills that align with the company's strategic objectives.

Person-Environment Fit Theory:

This theory emphasizes the importance of matching individuals with the organizational environment. In recruitment and selection, it underscores the need to assess not only the technical skills of candidates but also their cultural fit, values alignment, and ability to adapt to the company's work environment.

Social Exchange Theory:

Social exchange theory highlights the reciprocal relationship between employees and employers. In the context of recruitment, it suggests that a positive candidate experience, fair treatment, and transparent communication during the selection process contribute to a stronger employer-employee relationship.

Signal Theory:

Signal theory suggests that candidates and employers exchange signals during the recruitment and selection process. Organizations send signals through job postings, branding, and communication. Understanding these signals helps candidates make informed decisions, and employers can attract candidates who align with their values and goals.

Psychological Contract Theory:

This theory focuses on the unwritten expectations and obligations that exist between employees and employers. In the recruitment and selection process, it's crucial to set clear expectations regarding job roles, responsibilities, and the overall employment relationship to establish a positive psychological contract.

Critical Theory:
Critical theory encourages a critical examination of power dynamics, biases, and inequalities in the recruitment and selection process. This perspective emphasizes the need for fairness, diversity, and inclusivity to ensure that the process does not perpetuate societal inequities.

Organizational Justice Theory:
Organizational justice theory emphasizes the importance of fairness in organizational processes. In the context of recruitment and selection, it stresses the need for transparent, consistent, and unbiased procedures to enhance the perceived fairness of the selection process.

Technology Acceptance Model (TAM):
TAM explores the factors influencing the adoption and acceptance of technology. In the IT industry, incorporating technology in recruitment processes (such as applicant tracking systems, video interviews, etc.) aligns with TAM principles and can improve efficiency and effectiveness.

Stakeholder Theory:
Stakeholder theory suggests that organizations should consider the interests of various stakeholders, including candidates, employees, and the broader community. In recruitment and selection, organizations should balance the needs and expectations of all stakeholders to build positive relationships. By integrating these theoretical perspectives, IT firms can develop a comprehensive understanding of the recruitment and selection process, align their practices with organizational goals, and create an inclusive and effective talent acquisition strategy. It's essential to recognize that the framework should be adapted based on the specific context, industry, and organizational characteristics. Regular evaluation and adjustment of the framework will help ensure its ongoing relevance and effectiveness

REVIEW OF LITERATURE
A literature review on the recruitment and selection process provides an overview of existing research, theories, and best practices in this area. While the specific focus may vary depending on the context, industry, and research objectives, here is a generalized literature review on recruitment and selection:

Recruitment Process:
In their study, Gatewood, Field, and Barrick (2010) highlight the importance of strategic recruitment, emphasizing the need for organizations to align their recruitment practices with overall business goals. They discuss the role of employer branding, social media, and technology in modern recruitment.Highhouse and Hoffman (2001) explore the impact of recruitment sources on the quality of job applicants. Their findings suggest that different recruitment channels yield candidates with varying levels of skills and qualifications.

The work of Ployhart and Moliterno (2011) delves into the concept of recruitment flexibility, emphasizing the need for organizations to adapt their recruitment strategies to meet changing business needs and market conditions.

Selection Process:
Schmidt and Hunter's (1998) meta-analysis on the validity of selection methods provides insights into the effectiveness of different tools used in the selection process, such as interviews, cognitive ability tests, and work samples.The study by Barrick and Mount (1991) focuses on the role of personality in the selection process. They argue that personality traits can be valid predictors of job performance and should be considered in the selection of employees.Cascio (2018) explores the impact of technology on the selection process, discussing the use of artificial intelligence, machine learning, and data analytics in enhancing the efficiency and accuracy of candidate assessments.Diversity and Inclusion in Recruitment and Selection:Cox and Blake (1991) discuss the business case for diversity, emphasizing that a diverse workforce can contribute to organizational effectiveness and innovation. The literature underscores the importance of integrating diversity and inclusion into the recruitment and selection process.

Konrad and Linnehan (1995) examine the role of biases in the selection process and propose strategies to mitigate the impact of stereotypes and prejudices in decision-making.

Candidate Experience and Employer Branding:
The study by Van den Heuvel and Bondarouk (2017) explores the concept of the candidate experience and its impact on employer branding. It emphasizes the need for organizations to prioritize a positive candidate journey to attract and retain top talent.

A study by Ambler and Barrow (1996) delves into employer branding and its influence on the perceptions of potential candidates. It discusses how a strong employer brand can positively affect the quality of applicants and employee retention.

Legal and Ethical Considerations:
The work of Schuler and Jackson (1987) discusses the legal and ethical dimensions of the recruitment and selection process. It addresses issues such as equal employment opportunity, affirmative action, and the ethical treatment of candidates.

Ryan and Ployhart (2000) explore the legal defensibility of selection methods, providing guidelines for organizations to ensure their practices comply with legal standards.

Technology in Recruitment and Selection:
The study by Marler and Boudreau (2017) examines the role of technology in transforming the recruitment and selection process. It discusses the use of big data, analytics, and artificial intelligence in making more informed and objective hiring decisions.DePater, van Vianen, and Bechtoldt (2010) explore the impact of technology-mediated assessments on the validity and fairness of the selection process. They discuss the challenges and opportunities associated with the use of technology in candidate evaluations.This literature review provides a snapshot of key themes and research directions within the realm of recruitment and selection. It is essential to note that the field is dynamic, and ongoing research contributes to the evolution of best practices and theoretical frameworks in talent acquisition.

RESEARCH METHODOLOGY
The present study is based on primary data collected through questionnaire survey in the form of google forms circulated among IT sector employees in Mumbai region. Sample size for the study was 117.Data Analysis and interpretation was done as per the responses received,using MS Excel.

OBJECTIVES OF THE STUDY
1. Evaluate the overall effectiveness of the recruitment and selection process in IT firms in Mumbai region.

2. Identify the critical success factors that contribute to successful recruitment and selection in IT firms in Mumbai region.

3. Investigate the adoption and utilization of technology in the recruitment and selection process.

4. Explore how IT firms build and maintain talent pipelines.

5. Assess the effectiveness of diversity and inclusion initiatives within the recruitment and selection process. E

6. Explore how IT firms address skill gaps during the recruitment process.

7. Investigate the candidate experience during the recruitment and selection process.

Data Analysis and Interpretation
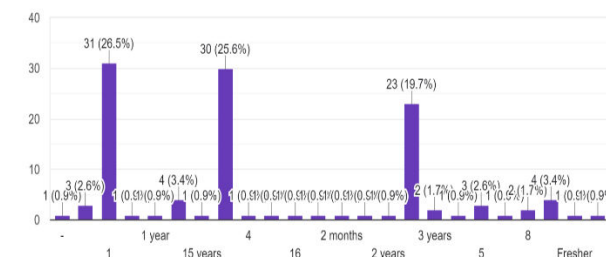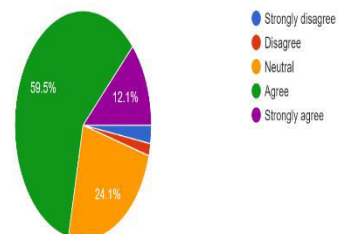
2.The job postings accurately reflect the qualifications and responsibilities of the position.
116 responses
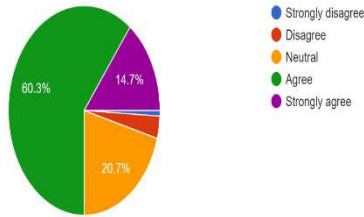
3.The Onboarding Process effectively prepares new hires to be productive in their roles.
115 responses
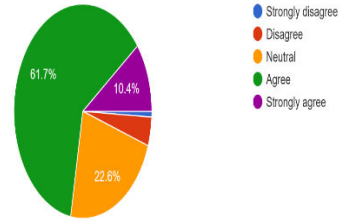
4.I feel that the employees hired through our recruitment process are well suited for their roles.
116 responses
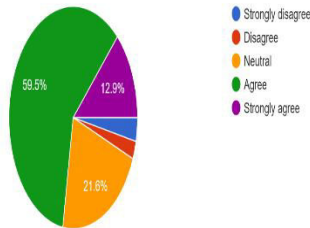
5.New hires receives necessary training and resources and to excel in their roles.
116 responses
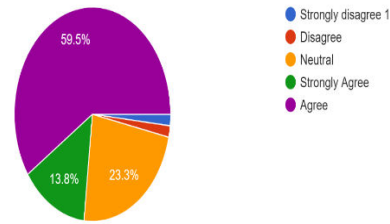
6.The organisation provides adequate training and development opportunities for employees.
117 responses
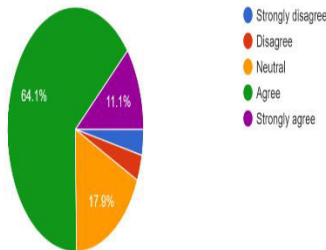
7.Are candidates typically hired within the expected time frame.
115 responses
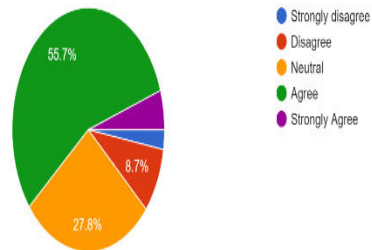
8.Have recent hires met or exceeded performance expectations.
113 responses
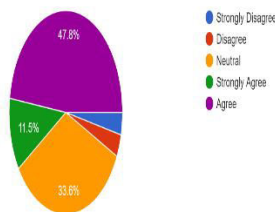
9.The practices promote diversity and inclusion in the hiring process.
114 responses
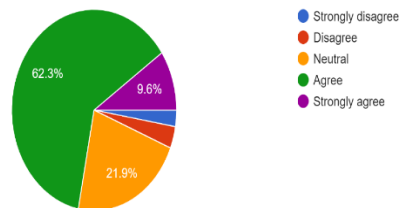
10. Their areas for improvement in attracting a diverse pool of candidates.
114 responses
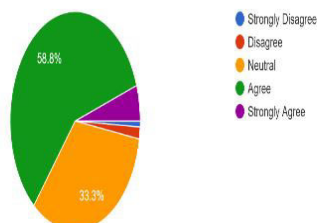
11.There trends indicating areas for improvement in retaining new hires.
116 responses
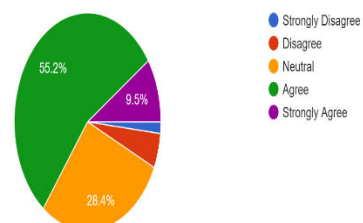
12.The organization support ongoing training and development for employees
116 responses
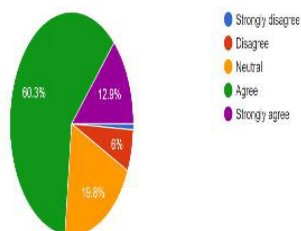
13. The pipe line of hiring is maintained as per expectations.
116 responses
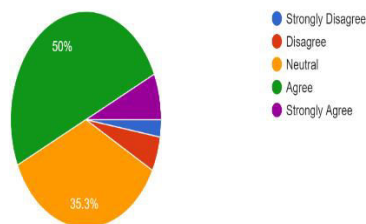
14. The Recruitment process are fluctuated according to the requirements.
116 responses
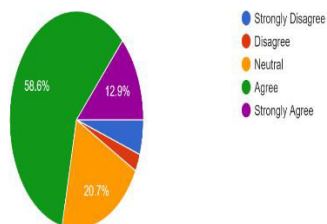
15.Overall I believe that our recruitment and selection practices positively contribute to organisational productivity.
117 responses
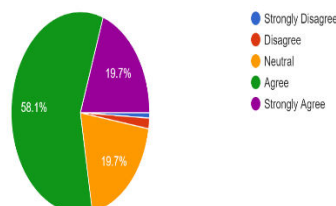
FINDINGS & CONCLUSIONS

1. **Job Postings Accuracy:**
o A significant majority of the **116 respondents** (60.3%) **strongly disagree** that job postings accurately reflect the qualifications and responsibilities of the position.

o An additional **20.7%** of respondents **disagree**, resulting in a combined total of **81%** who have negative views on the accuracy of job postings.

o Only a small percentage (14.7%) **agree**, and there is no visible section for respondents who **strongly agree** with the statement. Overall, the sentiment suggests that job postings may not be an accurate representation of what is expected in the actual job role.

o This is a combine conclusion of (1and 2) chart

3 On Boarding Process
o A significant majority of the **115 respondents** (61.7%) **strongly agree** that the onboarding process effectively prepares new hires to be productive in their roles.

o An additional **22.6%** of respondents **agree**, though not as strongly.

o A smaller percentage (10.4%) is **neutral**, neither agreeing nor disagreeing with the statement.

o There is no indication of disagreement or strong disagreement.

Overall, the sentiment suggests that the onboarding process is perceived positively by the majority of respondents.

4 Employee Suitability:
o A significant majority of the **116 respondents** (59.5%) **strongly agree** that the employees hired through their recruitment process are well suited for their roles.

o An additional **21.6%** of respondents **agree** with this statement.

o A smaller percentage (12.9%) either **disagree** or **strongly disagree**, although the exact percentage for strong disagreement is not visible in the image.

2. Overall, the sentiment suggests that the majority of respondents feel positively about the suitability of employees hired through the recruitment process.

5   New Hires Training and Resources:

o   A significant majority of the **116 respondents** (59.5%) **agree** that new hires receive necessary training and resources to excel in their roles.

o   An additional **23.3%** of respondents **strongly agree**, reinforcing this positive assessment.

o   A smaller percentage (13.8%) either **disagree**, and there is one respondent who **strongly disagrees** (as indicated by the blue dot).

2.   Overall, the sentiment suggests that most respondents believe new employees are well-supported, but there may be room for improvement in providing training and resources.

6 Training and Development Opportunities:

o   A significant majority of the **117 respondents** (64.1%) **strongly agree** that the organization provides adequate training and development opportunities for employees.

o   An additional **17.9%** of respondents **agree**, reinforcing this positive perception.

o   A smaller percentage (11.1%) are **neutral**, neither agreeing nor disagreeing.

o   There are no visible sections for respondents who **disagree** or **strongly disagree** with the statement.

2.   Overall, the sentiment suggests that most respondents view the organization's efforts in employee development positively.

7   Hiring Timeframes:

o   A significant majority of the **115 respondents** (55.7%) **agree** that candidates are typically hired within the expected time frame.

o   An additional **27.8%** of respondents are **neutral**, neither agreeing nor disagreeing.

o   A smaller percentage (16.5%) either **disagree** or **strongly disagree** with the statement.

2.   Overall, the sentiment suggests that most respondents believe candidates are hired within the expected time frame, but there is room for improvement in some cases.

8.   Performance Expectations for Recent Hires:

o   A significant majority of the **113 respondents** (47.8%) **strongly disagree** that recent hires have met or exceeded performance expectations.

o   An additional **33.6%** of respondents **disagree** with the statement.

o   A smaller percentage (11.5%) are **neutral**, neither agreeing nor disagreeing.

o   There are no visible sections for respondents who **agree** or **strongly agree** with the statement.

2.   Overall, the sentiment suggests that there is room for improvement in recent hires meeting performance expectations.

9.   Diversity and Inclusion in Hiring Practices:

a.   A significant majority of the **114 respondents** (62.3%) **strongly agree** that the practices in their workplace promote diversity and inclusion in the hiring process.

b.   An additional **21.9%** of respondents **agree**, reinforcing this positive perception.

c.   A smaller percentage (9.6%) are **neutral**, neither agreeing nor disagreeing.

d.   There is no indication of respondents who **disagree** or **strongly disagree** with the statement.

2.   Overall, the sentiment suggests that most respondents believe their workplace's practices effectively promote diversity and inclusion during hiring.

10. Diversity Recruitment:

e.   A significant majority of the **114 respondents** (58.8%) **agree** that there are areas for improvement in attracting a diverse pool of candidates.

f.   An additional **33.3%** of respondents **strongly agree**, reinforcing this sentiment.

g.   A smaller percentage (5.3%) are **neutral**, neither agreeing nor disagreeing.

h.   There is no indication of respondents who **disagree** or **strongly disagree** with the statement.

10. Overall, the sentiment suggests that a majority believes improvements could be made in diversity recruitment.

11. Retention Trends for New Hires:

a. A significant portion of the **116 respondents** (55.2%) **agree** that there are trends indicating areas for improvement in retaining new hires.

b. An additional **28.4%** of respondents are **neutral**, neither agreeing nor disagreeing.

c. A smaller percentage (9.5%) **disagree**, and there is a very small percentage (7%) who **strongly disagree** with the statement.

d. No one **strongly agrees** with the statement.

2. Overall, the sentiment suggests that most respondents believe there are areas for improvement in retaining new hires.

12. Support for Ongoing Training and Development:

o A significant majority of the **116 respondents** (60.3%) **strongly agree** that the organization supports ongoing training and development for employees.

o An additional **19.8%** of respondents **agree**, reinforcing this positive perception.

o A smaller percentage (12.9%) are **neutral**, neither agreeing nor disagreeing.

o There is no indication of respondents who **disagree** with the statement.

2. Overall, the sentiment suggests that most respondents believe the organization actively supports ongoing employee training and development.

13. Pipeline of Hiring:

o A significant majority of the **116 respondents** (50%) **agree** that the pipeline of hiring is maintained as per expectations.

o An additional **35.3%** of respondents **strongly agree**, reinforcing this positive perception.

o A smaller percentage are **neutral**, and there is no indication of respondents who **disagree** or **strongly disagree** with the statement.

2. Overall, the sentiment suggests that most respondents believe the hiring pipeline meets expectations.

14. Recruitment Process Flexibility:

a. A significant majority of the **116 respondents** (58.6%) **strongly disagree** that the recruitment process fluctuates according to requirements.

b. An additional **20.7%** of respondents **disagree**, reinforcing the sentiment that the process lacks flexibility.

c. A smaller percentage (12.9%) are **neutral**, neither agreeing nor disagreeing.

d. There is no indication of respondents who **agree** or **strongly agree** with the statement.

15. Overall, the sentiment suggests that most participants do not believe the recruitment process is flexible based on requirements.

1. **Recruitment and Selection Practices:**

o A significant majority of the **117 respondents** (58.1%) are **neutral** about whether recruitment and selection practices positively contribute to organizational productivity.

o An additional **19.7%** of respondents **agree**, indicating some positive sentiment.

o Another **19.7%** of respondents **disagree**, suggesting that there may be room for improvement in these practices.

o There are no responses for **strongly agree** or **strongly disagree** with the statement.

2. Overall, the sentiment suggests that respondents have mixed views on the impact of recruitment and selection practices on organizational productivity.

SUGGESTIONS

Based on the findings from the data analysis, it's evident that there are several areas where recruitment and selection practices in IT firms in the Mumbai region could be improved. Firstly, ensuring the accuracy of job postings is crucial to attract candidates who align with the job requirements, thereby enhancing the overall quality of applicants. Additionally, maintaining an effective onboarding process is essential to prepare new hires adequately for their roles, contributing to their productivity and integration into the organization. Furthermore, the suitability of employees hired through the recruitment process should be a primary focus to ensure workforce productivity and performance are optimized.

Secondly, providing new hires with necessary training and resources is essential for accelerating their integration into the organization and enabling them to excel in their roles. Moreover, offering adequate training and development opportunities for employees fosters continuous learning and skill enhancement, contributing to their professional growth and the organization's success. Additionally, streamlining the recruitment process to ensure candidates are hired within expected time frames is crucial to minimize delays and improve overall efficiency in talent acquisition.

Lastly, strengthening diversity and inclusion initiatives in hiring practices is imperative to attract a diverse pool of candidates and create a more inclusive work environment. Identifying specific areas for improvement in diversity recruitment and implementing targeted strategies to address them can enhance the organization's ability to attract and retain diverse talent. Moreover, maintaining a robust pipeline of hiring and increasing flexibility in the recruitment process to adapt to changing business requirements are essential for ensuring talent needs are met in a timely manner and improving responsiveness to hiring needs. By implementing these suggestions and continuously monitoring and refining recruitment and selection practices, IT firms in the Mumbai region can enhance their ability to attract, select, and retain top talent, ultimately contributing to organizational success and competitiveness in the industry.

REFERENCES

1. Gugesh J. N. & Rani S. S. (2013). A Study on the Effectiveness of Recruitment Process in Multicultural Organization. IJER, 10 (2), 373-390.

2. Nair Aishwarya (2011). A Study on Effectiveness of Recruitment Process in HCL Technologies- BPO Chennai. International Journal of Management, 4(3), 14-18

3. Naveen S. & Raju D. N. M. (2014). A Study on Recruitment & Selection Process with Reference to Three Industries Cement Industry, Electronics Industry, Sugar Industry in Krishna Dt. A.P., India. IORS Journal of Business and Management, 15 (4), 60-67.

4. Rao Pramila (2010). A Resource-based Analysis of Recruitment and Selection Practices of Indian Software Companies: A Case Study Approach. Journal of Indian Business Research, 2 (1), 32-51.

5. Broughton Andrea, et. al. (2013). The Use of Social Media in the Recruitment Process. A Research Paper by Institute of Employment Studies, Brighton, UK. Published by Acas Research Publications.

6. Darkoh Mavis Adu (2014). Employee Recruitment and Selection Practices in the Construction Industry in Ashanti Region. A Master of Business Administration Thesis, Submitted to Department of Managerial Science, Kwame Nkrumah University of Science and Technology.

7. Australian Human Rights Commission (2015) Good practice, good Business: Eliminating discrimination and harassment from your workplace.

8. A. R. Afshari, M. Nikolic and D. Cockalo, Applications of fuzzy decision making for personnel selection problem - a review, Journal of Engineering Management and Competitiveness 4(2) (2014), 68-77.

9. [P. Khanna, Recruitment and selection: a need of the hour for organizational success, International Journal of Research in Management & Technology 4(3) (2014), 148-155. [10] G. Nabi and S. Wei et al., Effective recruitment and selection procedures: an analytical study based on public sector universities of Pakistan, Public Policy and Administration Research 4 (10) (2014), 12-21.

10. S. Naveen and D. N. M. Raju, A study on recruitment & selection process with reference to three industries, cement industry, electronics industry, sugar industry in Krishna District, AP, India, IOSR Journal of Business and Management 15 (5) (2014), 60-67

11. Essential of human resource management and industrial relations, subbarao Mumbai, Himalaya publishing house, 1996 Edward E. Lawler Iii; John W. Boudreau. Stanford Business Books, 2009

12. Reinventing Human Resources Management: Challenges and New Directions ,Ronald J. Burke; Cary L. Cooper. Routledge, 2005 [3] Understanding Human Resource Management ,Ken N. Kamoche. Open University Press, 2001

13. Organizational Success through Effective Human Resources Management Ronald R. Sims. Quorum Books, 2002

14. How to Develop Essential HR Policies and Procedures ,John H. McConnell. AMACOM, 2005 Krishnan, Sandeep K.; Singh, Manjari. South Asian Journal of Management, Vol. 18, No. 1, January-March 2011

15. A Balanced Approach to Understanding the Shaping of Human Resource Management in organisations** Boselie, Paul. Management Revue, Vol. 20, No. 1, January 1, 2009 Hargis, Michael B.; Bradley, Don B.,, III. Academy of Strategic Management Journal, Vol. 10, No. 2, July 2011 Nehles, Anna C.; van Riemsdijk, Maarten; Kok, Irene; Looise, Jan Kees. Management Revue, Vol. 17, No. 3, July 1, 2006

16. Globalizing Human Resource Management Paul Sparrow; Chris Brewster; Hilary Harris. Routledge, 2004 [8] International Human Resource Management: A Multinational Company Perspective Monir H. Tayeb. Oxford University Press, 2005

THE TRANSFORMATIVE POWER OF SOCIAL MEDIA ADVERTISING ON CONSUMER BEHAVIOUR IN THE TRAVEL AND TOURISM SECTOR

Ms. Valentina Kini[1] and Dr. (Mrs.) Varsha Ganatra[2]

[1]Assistant Professor, Department of Commerce, Ramanand Arya D.A.V College (Autonomous) Bhandup East, Mumbai - 400042

[2]Head of Department, Department of Commerce, Vivekanand Education Society's College of Arts, Science and Commerce Sindhi Society (Autonomous) Chembur, Mumbai - 400071

[2]ORCID ID: 0000-0001-9979-3079

ABSTRACT

Social media advertising has become an integral aspect of marketing strategies across diverse industries, including the Travel and Tourism sector. This study aims to investigate the impact of social advertising on consumer behaviour within the Travel and Tourism industry, exploring the evolving role of social media platforms as powerful tools for promoting destinations, services, and experiences. The research delves into how consumers respond to and engage with these advertisements, contributing to a deeper understanding of the dynamics shaping the industry. Employing a comprehensive research methodology involving both quantitative and qualitative methods, data will be gathered through primary sources via questionnaires and secondary sources such as credible peer-reviewed journals and online articles. The research also explores the roles of influencers, evaluates the effectiveness of different platforms, and identifies factors influencing the success of social advertising campaigns in the Travel and Tourism sector.

Keywords: Social advertising, Consumer behavior, Travel and Tourism, Digital transformation

INTRODUCTION

In the current landscape of the Travel and Tourism industry, the integration of digital technologies and evolving consumer preferences has inaugurated a new era of marketing strategies. At the forefront of this paradigm shift lies social media advertising, a dynamic force reshaping the way businesses interact with their audience and influence decision-making processes. This research aims to delve into the intricate relationship between social media advertising and the Travel and Tourism sector, aiming to illuminate the transformative impact of digital channels on consumer behaviour.

Social advertising, a powerful tool in the digital marketing arsenal, involves strategically utilizing social media platforms to promote products and services. Within the expansive realm of Travel and Tourism, where experiences and destinations are intricately linked to consumer emotions and aspirations, the role of social advertising takes on unique significance. Platforms such as Instagram, Facebook, and Twitter have become pivotal in shaping travel preferences, with users turning to these channels for inspiration and recommendations. Understanding the dynamics of social advertising is crucial as businesses navigate this evolving digital landscape. The intersection of social advertising and the Travel and Tourism industry represents a critical point where the virtual and physical worlds seamlessly converge. Utilizing sponsored posts with stunning destinations and collaborating with influencers who share unique travel experiences, businesses harness the immersive quality of social media to evoke emotions and ignite a sense of wanderlust. This method goes beyond building brand awareness; it plays a vital role in shaping how potential travellers make decisions. This highlights the significant impact of social advertising in influencing the preferences and choices of today's explorers.

REVIEW OF LITERATURE

Afren, Sumaia (2024) has stated that digital marketing, particularly through social media, plays a crucial role in promoting tourism businesses. Utilizing diverse sources such as academic studies, industry reports, and government papers, the research underscores the transformative influence of digital marketing on travel behaviour. The findings indicate that social media, with its persuasive content and interactive features, not only sparks interest in travel but also significantly shapes the planning and decision-making processes of modern-day travellers.

Shruti Gulati (2021) investigates the intersection of social media and sustainable tourism, addressing a significant gap in the existing literature. The study emphasizes the scarcity of direct investigations into sustainable tourism consumption within consumer behavior studies. By focusing on Indian tourists, the research explores the potential of social media in generating and promoting sustainable tourism demand. The findings indicate that social media promotional activities contribute to creating awareness and connecting green tourists, providing valuable insights into the role of social media in fostering sustainable behavior in the tourism industry.

Chatzigeorgiou and Christou (2020) investigated consumers' experiences with social media as distribution channels in tourism marketing. Through in-depth interviews with 36 Facebook users, the study explored Mick and Fournier's paradoxes of technology adoption, revealing that consumers adopting social media for travel services may simultaneously develop positive and negative attitudes. The findings contribute insights into the adoption of technological innovations in the tourism sector.

Fotis' (2015) gives a holistic exploration of social media use throughout the travel process. He introduces the concept of information exchange, expanding the consumer behavior construct, and suggests technology fluidity extends beyond specific technologies to encompass associated behaviours. The study identifies six functional spaces, including inspiration and collaboration, contributing to a nuanced comprehension of social media's impact on holiday travel. Fotis' work introduces a social media-enabled travel process model, providing a valuable framework for understanding the dynamic role of social media within the travel and tourism industry.

OBJECTIVES:

1. To evaluate the effect of social media advertising on demographics of consumer behaviour in the travel and tourism sector

2. To analyse the influencing factors of social media advertisements on the travel and tourism industry.

HYPOTHESIS

Null Hypothesis H_{01}: There is no significant difference between social media advertisement and age of Respondent.

Alternate Hypothesis H_{11}: There is a significant difference between social media advertisement and age of Respondent.

Null Hypothesis H_{02}: There is no significant difference between social media advertisement and qualification of Respondent.

Alternate Hypothesis H_{12}: There is a significant difference between social media advertisement and qualification of Respondent.

Null Hypothesis H_{03}: There is no significant influencing factor of social media advertisement on the travel and tourism industry.

Alternate Hypothesis H_{13}: There is a significant influencing factor of social media advertisement on the travel and tourism industry.

LIMITATIONS

The research has some limitations that could impact the generalizability and interpretation of its findings. Firstly, the sample size of 130 respondents might not be large enough to represent the diverse demographics of social media users globally, potentially limiting the applicability of the results to broader populations. The research also seems to rely on self-reported measures, which can be subject to biases such as social desirability or recall bias, affecting the accuracy of the responses. Furthermore, the study's focus on only a few aspects of social media advertisements (e.g., information content, price understanding) might overlook other critical factors that influence consumer behavior, such as ad creativity, emotional appeal, or the role of influencers.

METHODOLOGY

Research Design:
This study utilizes both primary and secondary data. The primary data was collected through an online Google form, with 130 respondents from various locations in Mumbai. The rationale behind this design is to provide a comprehensive understanding of the impact of social media advertising on consumer behaviour in the Travel and Tourism industry.

Sampling Method:
The sampling method for this research involves a random sampling technique. The target population comprises individuals aged 18 and above who have engaged in travel within the past year. The strata include different age groups, genders, and occupation categories to ensure representation across diverse demographics. The sample size of 130 individuals has been determined through statistical calculations to ensure the reliability and generalizability of the findings.

Data Collection:
- Questionnaires are distributed electronically through various platforms, ensuring a wide reach.

- The questionnaire includes closed-ended questions, such as Likert scale, to measure the frequency and intensity of certain behaviours and attitudes.

- Data collected through the surveys is analyzed using statistical tools, including Analysis of Variance (ANOVA), and Friedman's Chi square test, corresponding to the hypotheses.

DATA ANALYSIS

Demographic Factor

Sr No.	Particular	Category	Frequency	Percent
1	Age	Up to 30 Years	37	28.5
		31 to 45 years	29	22.3
		46 to 60 years	37	28.5
		Above 60 Years	27	20.8
2	Qualification	Up to HSC	15	11.5
		Undergraduate	26	20.0
		Graduate	52	40.0
		Postgraduate	22	16.9
		Professional	15	11.5
3	Occupation	Students	22	16.9
		Service	43	33.1
		Self-employed	24	18.5
		Business	25	19.2
		Others	16	12.3

The table presents demographic data categorized into three main areas: Age, Qualification, and Occupation, with each category further divided into subcategories, alongside their respective counts and percentages of a sample population. For Age, the distribution is relatively even, with "Up to 30 Years" and "46 to 60 years" both having the highest share at 28.5% each, while "31 to 45 years" and "Above 60 Years" have slightly lower percentages. In terms of Qualification, the majority of the population is well-educated, with "Graduate" being the largest group at 40.0%, followed by "Up to HSC" at 11.5%, lower percentages. Occupation-wise, "Service" holds the largest portion at 33.1%, indicating a significant portion of the population is employed in various services, with the rest being distributed among "Students," "Self-employed," "Business," and "Others," highlighting a diverse range of professional engagements within the sample.

Responses Received w.r.t use of Social Media Advertising Related to travel & Tourism.

Sr No.	Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5.1	Advertisements are Informative	32	42	25	15	16
5.2	Advertisement helps in the selection of tourist place	30	51	17	15	17
5.3	Advertisement helps in understanding the price	36	47	29	6	12
5.4	Advertisement is useful to plan itinerary	36	49	23	8	14
5.5	Advertisement is beneficial determining in flight prices	27	50	27	13	13
5.6	Advertisements are beneficial in determining hotel prices	15	46	38	19	12

Above question is rated as follows:

Strongly Disagree	=	1
Disagree	=	2
Neutral	=	3
Agree	=	4

Strongly Agree = 5

Using above responses, mean score of Social Media Advertisements is obtained using formula given below.

Mean score of Social Media Advertisements

= Total score of rating of respondent (for 6 statements) × 100 Maximum rating (30)

Using above formula mean scores are obtained for each respondent and also for all 130 respondents. Descriptive statistics is as follows:

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Social Media Advertisements	130	30	67	49.92	8.897
Valid N (listwise)	130				

Above table indicates that the mean score of Social Media Advertisements is 49.92 percent with standard deviation 8.89, suggesting low variation in the responses.

Objective 1. To evaluate the effect of social media advertising on demographics of consumer behaviour in the travel and tourism sector

a. To study association between social media advertisement and age of Respondent

Null Hypothesis H_{01}: There is no significant difference between social media advertisement and age of Respondent**.**

Alternate Hypothesis H_{11}: There is a significant difference between social media advertisement and age of Respondent.

To test the above Null Hypothesis ANOVA test is Applied Results are as follows.

ANOVA					
Social Media Advertisements					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2680.990	3	893.663	14.955	.000
Within Groups	7529.352	**Findings:** To understand the findings of hypothesis, mean score of social media advertisement and age of Respondent.	59.757		
Total	10210.342	129			

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, the chi-square test is rejected. Hence the Null hypothesis is rejected and the Alternate hypothesis is accepted.

Conclusion: There is a significant difference between social media advertisement and age of Respondent.

Report			
Social Media Advertisements			
Age	Mean	N	Std. Deviation
Up to 30 Years	55.77	37	7.099
31 to 45 years	50.00	29	8.545
46 to 60 years	49.28	37	7.582
Above 60 Years	42.72	27	7.847
Total	49.92	130	8.897

This table presents statistics on the effectiveness of social media advertisements across different age groups, measured by a certain metric (likely engagement rate, clicks, or some form of interaction). The "Mean" column shows the average score for each age group, indicating how well ads perform. For individuals up to 30 years old, the mean score is the highest at 55.77, suggesting that this group interacts with ads the most. As age increases, the mean score decreases, with the group above 60 years showing the least interaction at 42.72. The

"N" column indicates the number of participants in each age group, with a fairly even distribution across the groups. The "Std. Deviation" column shows the variability of scores within each group, with all age groups showing a similar range of variability (between 7.099 and 8.545), indicating consistency in ad performance variability across ages. The following table is shown below in the bar diagram.

b. To Study Association Between Social Media Advertisement and Qualification of Respondent

Null Hypothesis H$_{02}$: There is no significant difference between social media advertisement and qualification of Respondent.

Alternate Hypothesis H$_{12}$: There is a significant difference between social media advertisement and qualification of Respondent.

To test the above null hypothesis ANOVA test is applied results are as follows.

ANOVA					
Social Media Advertisements					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	3072.789	4	768.197	13.453	.000
Within Groups	7137.552	125	57.100		
Total	10210.342	129			

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, the chi-square test is rejected. Hence the Null hypothesis is rejected and the Alternate hypothesis is accepted.

Conclusion: There is a significant difference between social media advertisement and qualification of Respondent.

Findings: To understand the findings of hypothesis, mean score of social media advertisement and qualification of Respondent.

Report			
Social Media Advertisements			
Qualification	**Mean**	**N**	**Std. Deviation**
Up to HSC	41.33	15	6.878
Undergraduate	46.03	26	9.044
Graduate	55.13	52	7.275
Postgraduate	50.30	22	6.894
Professional	46.67	15	7.237
Total	49.92	130	8.897

This data presents the average scores (Mean) associated with different levels of educational qualifications, ranging from completion of Higher Secondary Certificate (HSC) to professional qualifications. Individuals with a graduate-level education have the highest average score of 55.13, suggesting that those who have completed a bachelor's degree tend to perform better on this metric. In contrast, individuals with only up to HSC level education have the lowest average score of 41.33, indicating a potential correlation between higher educational attainment and higher scores. Postgraduates, with an average score of 50.30, also perform well, although slightly lower than graduates, which could be attributed to the nature of postgraduate studies or the specific metric being measured. Undergraduate and professional qualification holders have average scores of 46.03 and 46.67, respectively, placing them in the middle range. The following information is shown below in the bar diagram.

Objective 2. To analyse the influencing factors of social media advertisements on the travel and tourism industry.

Null Hypothesis H$_{03}$: There is no significant influencing factor of social media advertisement on the travel and tourism industry.

Alternate Hypothesis H$_{13}$: There is a significant influencing factor of social media advertisement on the travel and tourism industry.

To test the above null hypothesis Friedman test is applied results are as follows.

Test Statistics[a]	
N	130
Chi-Square	12.989
df	5
P-value	.023
a. Friedman Test	

Interpretation: The above results indicate that calculated p-value is 0.023. It is less than 0.05. Therefore, the chi-square test is rejected. Hence the Null hypothesis is rejected and the Alternate hypothesis is accepted.

Conclusion: There is a significant influencing factor of social media advertisement on the travel and tourism industry.

Findings: To understand the findings of hypothesis, mean rank of influencing factor of social media advertisement towards travel and tourism industry.

Ranks	
	Mean Rank
5.1 Advertisements are Informative	3.53
5.2 Advertisement helps in the selection of tourist place	3.56
5.3 Advertisement helps in understanding the price	3.23
5.4 Advertisement is useful to plan itinerary	3.26
5.5 Advertisement is beneficial determining in flight prices	3.51
5.6 Advertisements are beneficial in determining hotel prices	3.91

The data provided suggests a survey or evaluation of individuals' perceptions regarding the role and benefits of advertisements in the context of tourism and travel planning. With mean ranks ranging from 3.23 to 3.91, it is evident that advertisements are generally viewed positively across various dimensions. Specifically, advertisements are considered somewhat informative (3.53), helpful in selecting tourist places (3.56), and useful in understanding prices related to travel, such as the cost of flights (3.51) and hotels (3.91). Although the usefulness of advertisements in planning an itinerary and understanding general price levels is perceived to be slightly lower (3.26 and 3.23, respectively), the overall data indicates that advertisements play a significant role in assisting consumers with travel decisions by providing valuable information on destinations, pricing, and planning. The following information is shown below in the bar diagram.

FINDINGS AND CONCLUSIONS:

The data shows a well-educated audience, with graduates making up the majority, suggesting high interaction with informative and relevant content. The occupation distribution shows the sample's diversity, suggesting distinct interests and social media advertising responses. The success of social media adverts is linked to respondents' age and qualifications. Younger respondents (up to 30 years) and those with greater education (especially graduates) have higher mean advertisement effectiveness scores, showing they view social media ads as more informative and useful in travel selections. The paper also lists advertising's benefits for choosing vacation destinations and comprehending hotel pricing. The Friedman test shows that social media ads influence the travel and tourism business, demonstrating the importance of focused advertising in vacation planning. The paper emphasizes the importance of demographics and consumer perceptions in travel and tourism social media advertising optimization.

RECOMMENDATIONS

Based on the research findings, it's clear that social media advertisements significantly influence the travel and tourism industry, with varying impacts across different age groups and educational levels. To optimize the effectiveness of social media advertising in this sector, advertisers should consider tailoring their content to cater to the preferences and needs of specific demographic groups. For instance, engaging and informative content that highlights unique travel experiences, pricing details, and itinerary planning tips could be more appealing to younger audiences, especially those up to 30 years old who have shown the highest interaction with ads. Additionally, leveraging data on educational levels can help craft messages that resonate more effectively; for example, ads targeting graduates might focus on the educational aspects of travel destinations or offer more

in-depth insights into the culture and history of places. Advertisers should also consider using visual and interactive content to enhance engagement and leveraging analytics to continuously refine and personalize advertising strategies based on consumer feedback and behavior patterns. Finally, creating segmented campaigns that address the specific interests and concerns of different age groups and educational backgrounds can further enhance the relevance and impact of social media advertisements in the travel and tourism industry.

REFERENCES

- Afren, Sumaia (2024) *The role of digital marketing promoting tourism business. A study of use of the social media in prompting travel.* World Journal of Advanced Research and Reviews, 21 (01). pp. 272-287

- Chatzigeorgiou, C. & Christou, E. (2020). Adoption of social media as distribution channels in tourism marketing: A qualitative analysis of consumers' experiences. Journal of Tourism, Heritage & Services Marketing, ISSN2529-1947, Vol. 6, No. 1, pp. 25-32

- Fotis, J. N. (2015). The Use of Social Media and Its Impacts on Consumer Behaviour: The Context of Holiday Travel. Bournemouth University.

- Gulati, S. (2021). Social and sustainable: Exploring social media use for promoting sustainable behavior and demand amongst Indian tourists. *International Hospitality Review, 2516-8142.

ENHANCING ROAD SAFETY: EFFECTIVE STRATEGIES FOR ACCIDENT REDUCTIONAT BLACK SPOTS

Ammar Khan, Prerana Ikhar, Vaishnavi Sonar, Ansari Aazim, Moin Shaikh, Pimpale Ankita and Shah Aaqib

Shri Vile Parle Kelavani Mandals Institute of Technology Dhule

ABSTRACT

The goal of the study is to comprehend the different elements that affect road traffic safety. It examines accident data related to a certain location spanning a decade and finds numerous factors such as mid-block access points, pavement and shoulder conditions, time of day, vehicle types, and road layout that have a major impact on road safety. The relationship between driving speed and the probability and severity of crashes is also highlighted in the study. It does point out that there isn't a direct link between crashes and speed. The Mitigating Blind Spot Ultrasonic Sensor system, which use ultrasonic technology to identify blind spots and lower blind spot- related events, is also introduced in this study. It emphasizes how critical it is to resolve blind spots, which can be brought on by anything obstructing the driver's vision, such as headrests, pillars, and passengers. In order to improve driver awareness and lower the likelihood of collisions, the system attempts to alert drivers when a car is in their blind zone.

INTRODUCTION

The goal of the current study was to comprehend how various roadway elements affect traffic safety. An analysis of site- specific accident data over the previous ten years indicates that a number of factors significantly impact road safety. These include the number of mid-block access points per unit, the kind and state of the shoulder and pavement, the time of day, the kinds of vehicles, and the layout of the road, including whether it is two- or multi-lane.

Furthermore, a number of studies have shown that driving too fast raises the possibility and severity of collisions. However, a study shows that there is no connection of any kind between crashes and speed. The variables that affect traffic accidents and their possible effects are presented in Table 1. The frequency of crashes is also significantly influenced by traffic variables and geometric components. For example, wider lanes reduce crash rates because they operate as a barrier against distracted or careless drivers. Truck lane limits have been found to reduce collisions on roadways in two investigations; these studies found reductions of 4 and 17.6%, respectively. (Sujata basu and Pritam Saha, 2022).

Table 1

Framework of Factors Influencing Highway Crashes.

Factors	Evidence	Hypothesized highway crashes				
		Head-on	Rear-end	Sideswipe	Bicycle-vehicle	Pedestrian-vehicle
Geometric elements: lane and shoulder width, vertical and horizontal curve, sight distance.	[2,3,7,19,20]	✓	✓	✓	×	×
Passing or overtaking operation on straight stretches and horizontal curves	[14,15,17,18]	✓	×	✓	×	×
Over-speeding of vehicles	[5–8]	✓	✓	✓	✓	✓
Access point density	[4,16]	×	✓	✓	×	✓
Traffic composition: a higher proportion of heavy vehicles, slower vehicles including non-motorized one, drivers behaviour	[9,10,25,26]	✓	✓	✓	✓	✓
Driving under the influence of alcohol or drugs	[27,28]	✓	✓	✓	✓	✓
Weather (clear, rain, fog)	[29]	✓	✓	✓	✓	✓

Figures in brackets indicate reference numbers.

Symbols: '×' -Low possibility; '✓'-High possibility.

There has been a sharp rise in traffic accidents in many developing nations over the past few decades, which has led to a tragic loss of life. The catastrophic effects of these occurrences result in psychological tension on the families of the victims and significant monetary loss in a nation's gross domestic GDP nearly annually. Therefore, it would appear necessary to determine the risk variables and provide remedial actions to cut down on auto accidents. Although the researchers have found several risk factors for collisions on roads (Sujata basu and Pritam Saha, 2022).

Blind Spots:

Blind spot is a place which is accident prone or where the frequency of accidents is high. A Blind Spot is identified on the basis of concentration of accidents at a specific place where some form of remedial measures can be introduced to reduce the number of accidents or their severity. (Road Accidents in Delhi, 2019) The area of around 500 m diameter having "3 or more fatal accidents" or "10 or more total accidents" is called the Accident Prone Zone. Top twenty such Accident Prone Zones having maximum number of fatal accidents are the Accident Blind Spots (Road Accidents in Delhi, 2019).

Fig 1: Black Spot

To exist and function in a world of limitless possibilities assuming environmental complexity, a system must acquire certain procedures, action patterns, routines, and therefore capacities and competences (Schreyögg & Sydow, 2010). Selectivity, however, also increases the risk of blind spots and uncertainty in all forms of strategic activity, which limits organizational survival and action.

The number of deaths, grieving victims, and injured victims during the accidents can be seen in Fig. 1 based on an analysis of the accident data collected through the course of three years. According to the figure, there was a notable increase in the number of deaths between 2012 and 2014, with the grieving category being an exception. The number of fatal accidents is found to be lower than that of the grieving category with high personal casualties. Furthermore, a thorough examination of the accident data reveals that innovated as soon as possible.

METHEDOLOGY

As stated in the introduction, the goal of this study is to examine past transitions more closely in order to gain lessons that may prove useful in the future. Road traffic injuries(RTIs) rank among the world's leading causes of death. Based on data from the Indian government, there were 494,624 injuries and 150,785 fatalities from traffic accidents in 2016. The Indian government has recently developed strategies to lower the number of traffic accidents on Indian highways, with aparticular emphasis on the National Highways (NHs). Finding and fixing black spots on State Highways (SHs) and NHs is one of the aspects of these policies. States have detected blackspots on their NHs after receiving guidanceand a policy for doing so from the Ministry of Road Transport and Highways (MoRTH).

The NHs' black spot rectification has been given top priority. As a result, temporary solutions like rumble strips, reflective tape at intersections, installing cautionary signs and signboards, putting up signs, and implementing other speed limits are also being employed. On the other hand, long-term initiatives such building a flyover, by-pass, lane widening, and vehicular underpass are pedestrians are more seriously injured in collisions (Sujata basu and Pritam Saha, 2022). Hence the solution must be being implemented. The purpose of this study is to provide an overview of the nation's current black spot policy. The purpose of this study is to evaluate the efficacy of policies aimed at locating and fixing black spots onNHs. Additionally, it draws attention to the policies' advantages and disadvantages in light of the findings of the audit that was carried out to assess the state of road safety on Indian Highways. This study also suggests taking action to increase security at areas known as "black spots."

Road traffic injuries (RTIs) are regarded as a serious public health issue on a global scale. They have significant socioeconomic consequences to society and are among the main causes of hospitalization, disability, and death. According to the Global Burden of Disease (GBD) report for 2016, road injuries rank eighth in India and are up 22.5% from the previous year (IHME, 2017). According to Disability Adjusted Life Years (DALYS), it is one of the top 10 causes of mortality and disability overall. In India, among the top four causes of mortality and health loss for individuals between the ages of 15 and 49 are traffic accidents.

The startling statistic is that in 2016, 68.6% (103,409 people) of all road accident fatalities were the result of individuals in the 18–45 age range. As per the Ministry of Road Traffic Health (MoRTH, 2017b), there were 480,652 recorded traffic incidents in the nation in 2016 that resulted in 494,624 injuries and 150,785 fatalities. To put it another way, it means that one person dies on Indian roads every four minutes. According to the crash pattern study, the majority of road users murdered on highways are vulnerable road users (VRUs) (Mohan et al. 2017).

With 5.6 million km of roads, India has the second-largest road network in the world(MoRTH 2017b). Over 60% of the nation's goods and 85% of all passenger traffic in India are transported via the road network. The gradual expansion of road transportation throughout the country has resulted in an improvement in the connectivity between villages, towns, and cities. India's transportation infrastructure is predicted to expand at the quickest rate among the nation's infrastructure sectors through 2021, with a Compounded Annual Growth Rate (CAGR) of 5.9% (MoRTH 2018).

The Indian government has developed a number of initiatives aimed at improving road safety in recent years. To further improve road safety throughout the nation, the MoRTH has made addressing road safety its top priority.

Spots: either a site with five accidents in the previous three years or a location with ten fatalities. It is anticipated that the remedy that has been suggested and put into place at these locations will not be long-term effective.

This research aims to evaluate procedures related to the identification and correction of black spots that are unique to India. The results and conclusions of the audit, which was carried out throughout four Indian states, will provide information about the level of road safety in India. The audit's results and the literature evaluation served as the foundation for the suggestions.

Defining Black Spots

The overview of the literature is provided in this section to help you understand the definitions of black spots that some industrialized nations have chosen. Furthermore, a succinct explanation of the term "black spots" on Indian highways is also provided. The review's goal is to comprehend the strategies employed by industrialized nations to locate and address their "black spots." India is seeing an increase in road traffic fatalities and injuries as a result of the nation's rapid motorization. According to GBD, RTI was India's sixth most common cause of death in 2016.

To address the issue of road safety, the mandate ought to be to implement an evidence-based black spot management program. Since the crash is believed to be an unusual and unpredictable event, finding and fixing dark spots will be considerably more challenging. Furthermore, as the collision was the outcome of several causative events, the issue calls for diverse and well-thought-out remedies. Definitions of black spots need to be country-specific, sometimes even local.(Laxman Singh et.al., 2019)

Definition of Black spots: Indian Highways Perspective

According to MoRTH (2015), a road section of around 500 meters on the NH that has seen five traffic accidents or 10 fatalities in the previous three years is considered a "black spot" for road accidents. Both fatal and injured road accidents are included in this category. Additionally, the average severity index (ASI) is used to rank the black spots on NHs that have been found.

Best Practices for Identification of Black Spots

Elvik (2007) offers advice on where to find black spots and what rectification measures to apply. The author presents the "state-of-the- art" strategy based on data from safety analyses of road networks and black spot management statistics for traffic accidents. The methodical use of the EB approach for road safety assessment is the main focus, since it is considered the state-of-the-art for both network safety management and black spot management. Although EB has been hailed as the most effective approach to date for identifying black spots, Persaud and Lyon (2007) cautioned researchers and traffic safety specialists against depending exclusively on the EB methodology.

According to Elvik (2007), the following are the fundamental components of a newly developed state-of-the-art method for road network safety analysis: a. The anticipated frequency of accidents should be taken into account while identifying black areas. b. The basis for identification needs to be a reference to a precisely specified population of sites. c. Since the sliding window method increases the fluctuation in accident counts, it should not be employed at all. d. The expected number of accidents should be estimated using multivariate accident prediction models. e. The most accurate estimate of the anticipated number of accidents at a location should be determined using the EB approach. f. To designate a place as a black spot location, the best criterion should be used in order to verify the sensitivity and specificity of the various critical values of the expected number of accidents. g. It is necessary to confirm the recurring pattern of accidents at dark patches.

The accident investigation at black spots should serve as the foundation for the risk factors hypothesis. h. It should be acknowledged in the accident study of black spot that the observed pattern is solely the result of chance. Binomial tests should be performed to ascertain whether the number of incidents of a particular type is stochastic. i. Analysis of black spots have to be impartial and grounded in comparison to a secure area. Analysis should be used to identify the risk variables for the incidents. j. The EB before- after research ought to be employed to assess the efficacy of the program for treating black spots. The identification process has evolved to take into account geographical differences along with advances in research and technology. It was observed that organizations were now use scientific techniques to locate the dark areas and make the necessary corrections.

Summary

The paper explores the many facets of traffic safety on the road, emphasizing the elements that influence accidents and the introduction of the Mitigating Blind Spot Ultrasonic Sensor system. The study examines ten years' worth of accident data to pinpoint important factors that influence road safety, such as mid-block access

locations, pavement quality, daytime driving patterns, vehicle types, and road design. Notably, the relationship between speed at which one drives and the likelihood of a crash is investigated, and the results show that speed and crashes are not directly related. In order to notify drivers of vehicles in their blind zone, the Mitigating Blind Spot Ultrasonic Sensor system was introduced as part of the study, which highlights the urgent need to resolve blind spots, which can be caused by impediments like headrests and pillars.

The impact of traffic injuries worldwide, especially in India, is also included in the report, as are the steps the Indian government has done to lower the number of traffic fatalities and accidents. It evaluates the efficacy of programs that identify and address "black spots" on Indian highways, highlighting the necessity of enhancing safety at these sites. It also describes the difficulties caused by traffic accidents, including the socioeconomic consequences and the susceptibility of users of the road, and emphasizes the need of tackling road safety problems with evidence-based black spot management initiatives. The document also defines "black spots" from the standpoint of Indian highways and goes over best practices locate and address the accident-prone places.

CONCLUSION

The document focuses on assessing road safety policies in India, particularly in relation to the identification blind spots on National Highways and State Highways. It highlights the significant impact of road traffic injuries (RTIs) on public health and the economy, with a particular emphasis on the vulnerability of road users, such as pedestrians. The study also delves into the factors influencing road safety, including the impact of mid-block access points, pavement conditions, time of day, vehicle types, and road layout. Additionally, it introduces the Mitigating Blind Spot Ultrasonic Sensor system as a potential solution to reduce blind spot-related accidents.

Key quotes from the document include:

1. "The goal of the study is to comprehend the different elements that affect road traffic safety."

2. "The crash pattern analysis has revealed that vulnerable road users (VRUs) have the highest share among the road users killed on the highways."

1. "The NHs constitutes 1.8% of the total road for detecting them, highlighting the significance of using scientific methods to network in the country and carry 40% of the traffic whereas accounted for 29.6% of total road accidents and 35% of the fatalities."

2. "The catastrophic effects of these occurrences result in psychological tension on the families of the victims and significant monetary loss in a nation's gross domestic GDP nearly annually."

3. "The number of deaths, grieving victims, and injured victims during the accidents can be seen in Fig. 1 based on an analysis of the accident data collected through the course of three years."

4. In conclusion, the document provides a comprehensive analysis of road safety policies, the impact of road traffic injuries, and potential solutions to improve road safety in India.

REFERENCE

1. Kedarkar, Pallavi, Maithilee Chaudhari, Chetna Dasarwar, and P B Domakondwar. 2008. "Prevention Device for Blind Spot Accident Detection and Protection."*Academia.Edu* 624: 624–27.

2. Bisht and Tiwari, 2019. "Assessing the Black Spots Focused policies for Indian National Highways" ELSEVIER 2537- 2549.

3. Road Accidents in Delhi, 2019

4. Schreyögg, G., and Sydow, J, 2010. "Crossroads – Organizing for fluidity? Dilemmas of new organizational forms."Organization Science, 21, 1251–1262

5. Robert Burisch and Veit Wohlgemuth, 2016. "Blind spots of dynamic capabilities: A systems theoretic perspective". Journal of Innovation & Knowledge 1 (2 0 1 6) 109–116

6. Mohan, D., Tiwari, G., and Bhalla, K. (2017). *Road safety in India status report 2016*.

7. MoRTH. (2017a). "Road Accidents in India-2016."

8. MoRTH. (2017b). "Basic road statistics of india 2015-16."

9. Elvik, R. (2007). State-of-the-art approaches to road accident black spot management and safety analysis of road networks

10. Elvik, R. (2008). "A survey of operational definitions of hazardous road locations in some European countries." Accident Analysis and Prevention, 40(6), 1830–1835.

11. Elvik, R. (2008). "A survey of operational definitions of hazardous road locations in some European countries." *AccidentAnalysis and Prevention*, 40(6), 1830–1835.

12. World Health Organization. (2015). Brasilia Declaration. Second Global High- level Conference on Road Safety: Time for Results Brasilia, 18-19 November 2015 PP1.

A STUDY ON CLIMATE FINANCE AND ITS IMPLICATIONS IN INDIA

Dr. Sachin Bhandarkar[1] and Dr. Vaishnavi Bagul[2]
[1]Assistant Professor, Department of Commerce, Vivekanand Education Society's College of Arts, Science and Commerce (Autonomous), Chembur, Mumbai, Maharashtra, India.
[2]Assistant Professor, Department of Financial Markets, Vivekanand Education Society's College of Arts, Science and Commerce (Autonomous), Chembur, Mumbai, Maharashtra, India.

ABSTRACT
Climate change and global warming are matters of concern all over the world. It is now overwhelmingly clear that climate change can pose major a threat to humanity. Especially in developing countries it is difficult to strike balance between economic growth and reduce environment degradation. Climate finance is an emerging mechanism that can support initiatives of different countries for mitigation of climate changes. It started gaining attention after the adoption of Paris Agreement in December 2015. Climate finance is any kind of financing from different sources to support mitigation and adaptation of actions that will address climate change. There are a number of initiatives taken at global level as well as by India w.r.t climate finance. Digitalisation can play a significant role to overcome the challenges in the delivery of climate finance. The research paper takes an overview of the concept of climate finance, its usefulness and also the efforts taken globally and domestically in India. It also discusses the liaison between digitalisation and climate finance. The paper is Exploratory in nature and is based on secondary sources of data.

Keywords: Climate Change, Climate Finance, Initiatives for Climate Finance, Digitalisation

INTRODUCTION
Climate changes are a serious threat to the entire world. It exposes vulnerable communities to dangers like disasters, diseases, loss of livelihoods, crop failures, poverty and displacement, threatening loss of biodiversity, food security and many more. The solution to deal with this global concern requires cooperation and collaboration between countries across the world. The 2015 Paris Agreement was an effort in this direction. 195 countries agreed to come together to drastically reduce their greenhouse emissions and protect people from the negative impacts of climate change. However, any projects in this area requires significant amount of investments. Therefore, it was resolved that climate Finance has to be a key element of action against climate

change. Climate Finance means financial flows both within and between countries dedicated to climate mitigation and adaptation. It includes public and private funding sources, with contributions from governments, multilateral development banks, private investors, and other stakeholders. It plays a critical role in helping countries and organizations to mitigate greenhouse gas emissions and adapt to the impacts of climate change.

Climate finance is defined by the *United Nations Framework Convention on Climate Change (UNFCCC) to be "local, national, or transnational financing — drawn from public, private, and alternative sources of financing —that seeks to support mitigation and adaptation actions that will address climate change."*

Key Elements in Climate Finance
1. **Mitigation:** Climate finance supports projects and activities that reduce or mitigate greenhouse gas emissions. This can include investments in renewable energy sources, energy efficiency measures, reforestation and afforestation, and sustainable transportation.

2. **Adaptation:** Climate finance also funds, projects that help communities and countries adapt to the impacts of climate change, such as rising sea levels, extreme weather events, and changes in precipitation patterns. Examples include building resilient infrastructure, implementing water resource management strategies, and enhancing agricultural practices.

3. **International Climate Finance:** Many developed countries provide financial assistance to developing nations to help them combat climate change and adapt to its effects. This international climate finance is often provided through mechanisms like the Green Climate Fund, the Climate Investment Funds, and bilateral aid programs.

4. **Public and Private Funding:** Climate finance can come from a variety of sources, including public funds, international aid, private sector investments, and philanthropic organizations. Public funds can be allocated through government budgets.

Climate Finance Mechanism

Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC) has established a financial mechanism to provide financial resources to developing countries. As per this mechanism, Global Environment Facility (GEF) and Green Climate Fund (GCF) are established which decides on its policies, programme priorities and eligibility criteria for funding. There are also funds established like Special Climate Change Fund (SCCF), Least Developed Countries Fund (LDCF), and Adaptation Fund (AF) created for provision of climate finance. There is also a Standing Committee on Finance (SCF) to assist the Conference of the Parties (COP) in exercising its functions in relation to the financial mechanism.

Climate Finance in India comes from multiple international (multilateral and bilateral aid agencies, and multinational private firms) and national (domestic budgets and private funds) sources. These funds flow either through the government budgets at the national and subnational level to be managed by the government departments and agencies; or take "off budget" routes or can even be in form of direct project funding to be managed by the private players and non-government organizations at the project level. The funds are in form of budgetary allocations, taxes, subsidies, generation-based incentives, private equity, loans, soft-loans and grants.

OBJECTIVES OF THE STUDY
- To understand the concept and importance of climate finance.
- To analyse the global strategies adopted regarding climate finance.
- To study climate finance initiatives taken in India.
- To study the relevance of digitalisation in climate finance.

RESEARCH DESIGN AND METHODOLOGY
The research methodology for this research paper is exploratory and has been conducted based on secondary sources of data. The data has been obtained from books, articles, websites of public sector and private sector organisations in India and at global level. The paper covers initiatives w.r.t. climate finance undertaken at global level and also in India. It also points out the challenges in mobilisation of climate finance.

DATA ANALYSIS AND INTERPRETATIONS:

1) Global Initiative for Climate Finance
- **Climate Policy Initiative (CPI)** - CPI is an analysis and advisory organization with the expertise in finance and policy. Its mission and vision are to help governments, businesses, and financial institutions achieving economic growth taking into consideration climate change and build a sustainable, resilient, and inclusive global economy. The organisation analyses, designs and implements sustainable finance and development solutions through collaboration. It is a non-profit organisation supported by wide range of funders including giant corporates from all over the world. In the year 2021-22 the average annual climate finance flows reached almost USD 1.3 trillion which was nearly double as compared to the year 2019-20.

- **The Lab (Global Innovation Lab for Climate Finance)** – It is an innovative lab established in June 2014 by US, UK and Germany in partnership with major development finance institutions, key private players, and climate finance donor governments including Denmark, France, Japan, Netherlands and Norway. The lab extends financial support to projects related to environment sustainability in developing countries. It looks out for innovative ideas in the area of environment protection, sustainability and climate change. Ideas funded should not only be innovative but also financially sustainable and should have potential for growth even in the long run. Till date, the Lab has mobilised USD 4 billion for climate action in developing countries. Total investment through the Lab network and private investors is around USD 2.9 billion. The Lab functions through Lab Members Principals, Advisors, Regional Panel Members, Steering Group, Observers, Strategic Partners, Proponents, Working Groups, and Secretariat.

- **The Green Climate Fund (GCF)** – It is the world's largest climate fund, created to support developing countries in raising and realising their Nationally Determined Contributions (NDC) ambitions towards low-emissions, climate-resilient pathways. There are many businesses having good growth potentials and working for the protection of environment. GCF mobilises funds from private sector for investment in these profitable climate-smart businesses. The GCF Board looks after the governance and Fund's management. It was established by 194 sovereign governments party to the UN Framework Convention on Climate Change (UNFCCC). The Board is independent and guided by the Conference of the Parties (COP) to the Convention. As of now the fund has funded 243 projects with contribution of USD 13.5 billion in 129 developing countries.

2) Climate Finance Initiatives in India

At COP26, India announced a net zero emissions target by 2070. Financial resources and sound investments are needed to address climate change, to reduce emissions, promote adaptation to impacts already occurring and to build resilience. However, India, like many developing countries, lacks financial resources to make the transition to clean energy that could reverse climate change. To achieve these targets there are various initiatives taken at Government as well as Private level.

- **Climate Change Programme** – The Government of India launched National Action Plan on Climate Change (NAPCC) on in 2008. There are eight National Missions on climate change, which are National Solar Mission, National Mission for Enhanced Energy Efficiency, National Mission on Sustainable Habitat, National Water Mission, National Mission for Sustaining the Himalayan Eco-system, National Mission for a Green India, National Mission for Sustainable Agriculture and National Mission on Strategic Knowledge for Climate Change.

- **Climate Finance Architecture in India** –
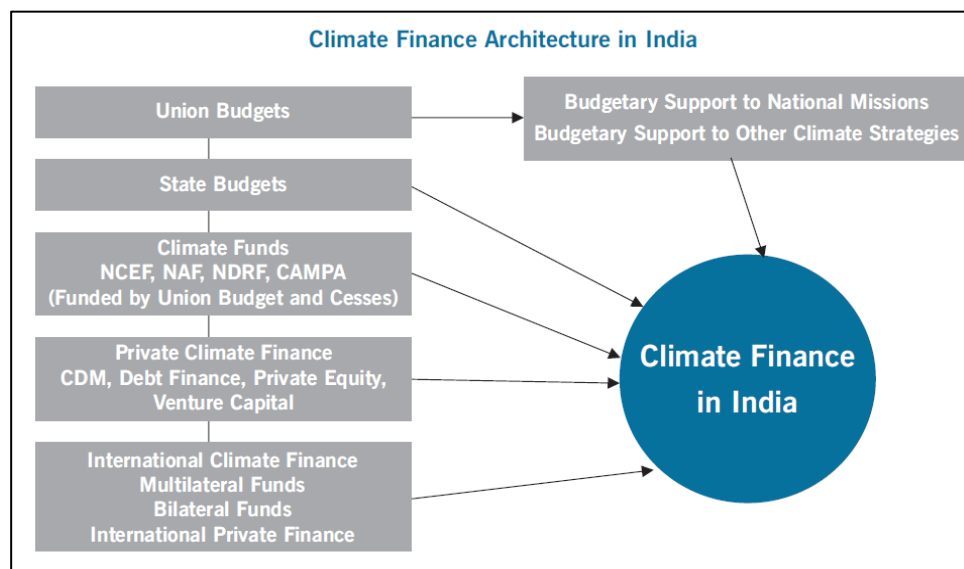
Source: Climate Finance Architecture in India published by Centre for Budget and Governance Accountability (CBGA), September 2017

As the figure shows there are multiple sources through the Government of India is trying to promote climate finance.

- **Climate Policy Initiative (CPI)** – In India, CPI develops innovative finance and policy solutions that support credible, equitable green growth and transition plans. The focus is on green finance, sustainable finance, and renewable energy. It collaborates with Government of India, Development Finance Institutions, the private sector to achieve sustainability goals. CPI in India also takes care of Global Innovation Lab for Climate Finance, an incubator for innovative climate finance instruments, The India Clean Energy Finance initiative, a program to mobilize debt financing for distributed solar energy, The India Pure Finance Facility, an initiative for promoting productive applications of Renewable Energy, and The India Centre for Sustainable Finance, a knowledge and networking hub are designed to accelerate India's financial sector towards a more sustainable future. In 2019-20 the CPI in India has mobilised USD 8,184 million.

- **Issue of Green Bonds as a Climate Finance Strategy** – India aims to reduce emission intensity by 45% in 2030 as compared to 2005. It also targets to increase the share of non-fossil fuel-based energy resources to half of the installed capacity. To achieve these milestones, an investment of USD 170 billion is required. However, average annual short fall is USD 44 billion. In various international forums India has highlighted the need for increased flow of finance to developing countries to cope with climate change. In February 2022 the Government of India announced to issue sovereign green bonds to mobilize resources for green infrastructure which were issued in February 2023 worth INR 80 billion (equivalent to USD 980 million). Another INR 80 billion (USD 968 million) sovereign green bonds will be issued in near future.

- **The Green Climate Fund (GCF)** – As mentioned above, it is the world's largest climate fund which has funded 9 projects in India financing around USD 542.3 million. The fund has contributed in the areas of transportation, solar power and rural infrastructure.

- **Shakti Sustainable Energy Foundation** – It is an organisation that works in the area of clean energy and climate solutions. They have partnered with policy makers, civil society, industry, academicians to develop and improve systems to tackle the climate change. Their major focus is on the development of clean energy solutions in power, industry and transport. Their climate finance programme seeks to enhance capital flows for climate mitigation and adaptation in India and to create an enabling financial ecosystem that can deliver positive climate impact. They have collaborations with banks, financial institutions, technical experts and key stakeholders to develop solutions that can generate more funding for climate finance.

3) Status of Climate Finance in India

- 67 Indian companies have committed to taking climate action and 14 companies are committed to net zero goals.

- Climate tech businesses received USD 7 billion in equity funding in 2021 which was 4 times more than the equity funding in 2020. The total equity and debt climate tech investment in 2021 was around USD 20 billion.

- Equity funding for climate tech in 2022 reduced 34% compared to the previous year; however, there were 8 large strategic, IPO and post-IPO deals worth over USD 5 billion.

- Investment in Agritech increased by 20% and in waste and circularity it increased 5 times over the last year. Considerable amount of funds was invested in Electronic Vehicles (EVs).

- Investment in solar technology has always been a trend but in 2022 there were multiple investments in wind power companies working on solar and wind projects.

- The popularity of Electronic Vehicles is also on the rise. EVs in India are largely 2 and 3-wheeler vehicles. In FY 2023, 591 brands sold EVs in India; 456 in 3-wheelers alone, contributing 53% of all 3-wheeler sales.

- In case of Agritechs the major investment is in supply chain start-ups. There is also increase in funding for on-farm solutions which include soil and crop monitoring, precision agriculture, input, automation systems and so on.

- 310 institutional investors have made a climate-positive equity investment in 2021 and 2022 which shows 40% increase over the previous year. 130 new investors emerged in 2022. This investment mainly comes from Dedicated Climate Focused Funds, Venture Capitals, Angel Syndicates and Incubators and Corporate Venture Capitals.

- There has been hike in domestic debt funding also in traditional projects and even in new areas like electric mobility. This funding is very helpful for businesses for their working capital management.

4) Digitalisation and Climate Finance

Digitalisation and climate finance are interconnected in the modern era as technology plays a crucial role in addressing environmental challenges, promoting sustainability, and facilitating financial transactions related to climate action. It can play following important role:

a) **Data Analytics and Monitoring** - Digital technologies, such as satellite imagery, sensors, and data analytics, enable real-time monitoring of environmental changes, helping assess climate risks and track the impact of climate finance projects.

b) **Blockchain Technology** - Blockchain ensures transparency and traceability in climate finance transactions. It can be used for issuing and tracking carbon credits, managing supply chains, and verifying the authenticity of sustainable practices.

c) **Fintech Solutions** - Fintechs contribute to climate finance by providing innovative solutions for managing and distributing funds. Online platforms and mobile applications facilitate easy access to climate finance resources.

d) **Green Bonds** - Digital tools support the issuance and tracking of green bonds, which are financial instruments designed to fund environmentally friendly projects.

e) **Carbon Footprint Tracking** - Digitalization enables the calculation and tracking of carbon footprints associated with financial activities. This helps institutions and individuals to make informed decisions that align with environmental sustainability goals.

f) **Smart Contracts** - Smart contracts, powered by blockchain technology, can automate and enforce agreements related to climate finance. This includes triggering payments based on the achievement of predefined environmental milestones.

Considering this role there are Some Initiatives Taken at Global Level.

a) **Green Fintech Initiatives** - Various countries and organizations are promoting green fintech initiatives to accelerate sustainable finance practices and integrate climate considerations into financial decision-making.

b) **International Collaboration** - Collaborative efforts between governments, financial institutions, and technology firms are aimed at developing global standards for sustainable finance and ensuring a coordinated approach to climate-related investments.

c) **Climate-Tech Start-ups** - The rise of climate-tech start-ups leveraging digital solutions showcases the growing interest in using technology to address climate challenges, including those related to finance.

However, there are two major concerns in the use of digitalisation in climate finance.

a) **Cybersecurity Concerns** - As more financial transactions move online, there is an increased risk of cybersecurity threats. Protecting sensitive climate finance data from cyber-attacks is a critical challenge.

b) **Data Privacy and Ethics** - The collection and use of environmental data raise concerns about privacy and ethical considerations. Striking a balance between data utilization for climate finance and protecting individuals' privacy is essential.

5) Challenges of Climate Finance

Though efforts are seriously been taken at global level there are challenges for climate finance.

- **Inadequate Finance** – A major hurdle in climate finance is the inadequacy of finance. The Covid19 pandemic has made the issue more severe as countries have been forced to re-allocate climate action funds to addressing the pandemic.

- **Finance Allocation** – **T**he United Nations Paris Agreement prioritizes financial support to the least developed countries, and those that are particularly vulnerable to the adverse effects of climate change. However, in practice funds do not necessarily go to countries where they are most needed. It has been noted that significant funds are being invested in developing countries with higher income levels, which often have comparatively lower levels of geographical vulnerability, lower levels of socio-economic vulnerability, and greater capacity to mobilize domestic financial resources and private finance for climate adaptation.

- **Short-term Funding** – Dealing with climate change is long term agenda of all countries which obviously requires long term financing. Short term financing is not suitable as it does not facilitate sustainable capacity building. Short-term funding often compromises the quality of capacity building projects, as there is no adequate timeline for meaningful planning and substantial capacity building.

- **Relevance -** Unfortunately the climate finance may not be utilised on appropriate issues relevant to enhancing capacity in specific country contexts. The spending is focussed on the goals of the financing entity and not as per the requirement of the concerned nation.

- **Complicated Formalities - S**ome developing countries find it difficult to access the funds due to the varied structures, complicated processes, and criteria involved. Access requires adequate skills, on the side of government officials and other relevant stakeholders to, for example, identify appropriate climate finance sources, develop winning project proposals, and negotiate with donors.

- **Corruption and Lack of Transparency -** Corruption and lack of transparency at national and international levels is a huge challenge. Decision making around the allocation of climate finance and selection of climate finance projects may involve bribery, nepotism and clientelism, favouring specific interest groups, rather than prioritizing areas of greatest need.

6) Challenges in India

- For the Energy Conservation (Amendment) Bill 2022, the Ministry of Power (MoP) is appointed as the nodal Ministry and the Bureau of Energy Efficiency (BEE) as the implementing agency. However, the Ministry of Power may not be the appropriate authority to regulate the scheme. In other countries like the UK and the US, it is the Environment Ministry that implements the schemes as proposed by the Bill. Further, there is no clarity as to who will regulate the carbon credit certificates as mentioned in the Act.

- Till now, India has installed 6.7 GW of solar rooftop panels which is quite less compared to its target of 40 GW in 2022. Inconsistent policies, underperformance of distribution companies, rise in subsequent tariffs, and more interest towards large-scale renewable energy are some of the reasons for this failure. The slow pace is a result of more preference being given to industrial and commercial sectors over the residential domain.

- New schemes such as AMRUT, HRIDAY, Smart City Mission, National Urban Livelihood Mission, and Swachch Bharat focus on concentrated areas with their objectives overlapping with the National Mission for Sustainable Habitat. These new schemes have drawn more attention than the National Mission For Sustainable Habitat (NMHS).

- There are major gaps in the National Mission for Sustainable Agriculture (NMSA) which includes less focus on small and marginal farmers for climate change resilience and less attention to adaptation scenarios.

- The success of National Mission for Sustainable Agriculture (NMSA) depends upon its integration with other national programmes on agriculture, development, and food security like MNREGA, National Food Security Mission, and Farm Management Mission among others. It is a long and tedious task as most of these fall under different ministries, making coordination difficult.

CONCLUSION

In conclusion, the exploration of climate finance within the context of global efforts to combat climate change reveals its critical role in supporting mitigation and adaptation actions worldwide. Developing countries, including India, often face the dilemma of pursuing economic growth while minimizing environmental degradation. Climate finance can provide crucial support in this regard, helping these nations transition to more sustainable development pathways. This paper provides valuable insights about global and domestic efforts in climate finance, particularly in the context of India, it can offer a comprehensive understanding of current practices and future opportunities. Digitalization has emerged as a promising tool to enhance the effectiveness and efficiency of climate finance delivery. Through digital platforms, financial resources can be mobilized, allocated, and tracked more transparently and securely. Digital solutions can also facilitate communication, coordination, and monitoring of climate finance initiatives, enhancing accountability and impact assessment. Overall, this research paper appears to offer a holistic overview of climate finance and its significance. Given the urgency of addressing climate change, such studies are instrumental in informing policy and action at both national and international levels. The study also finds out that significant further work is required to understand the impact that climate finance achieves on the ground, in terms of its tangible benefits for climate change mitigation, adaptation and sustainable development.

Though India's climate policies have shown positive trends in multiple areas, over the years the target of net-zero emissions is 2070 which is too far. Substantial amount of investments is needed to achieve these goals and public investment will definitely be insufficient. Therefore, private sector investment is vital to scaling climate solutions with urgency.

BIBLIOGRAPHY
- Giglio, S., Kelly, B., & Stroebel, J. (2021). Climate finance. *Annual Review of Financial Economics*, *13*, 15-36.

- Bhandary, R. R., Gallagher, K. S., & Zhang, F. (2021). Climate finance policy in practice: A review of the evidence. *Climate Policy*, *21*(4), 529-545.

- Climate Finance - Hong, H., Karolyi, G. A., & Scheinkman, J. A. (2020). Climate finance. *The Review of Financial Studies*, *33*(3), 1011-1023.

- Buchner, B., Herve-Mignucci, M., Trabacchi, C., Wilkinson, J., Stadelmann, M., Boyd, R., ... & Micale, V. (2014). Global landscape of climate finance 2015. *Climate Policy Initiative*, *32*, 1-38.

- Clapp, C., Ellis, J., Benn, J., & Corfee-Morlot, J. (2012). Tracking climate finance: what and how?

- Roberts, J.T., Weikmans, R., Robinson, Sa. *et al.* Rebooting a failed promise of climate finance. *Nat. Clim. Chang.* 11, 180–182 (2021).

- Nakhooda, S., Norman, M., Barnard, S., Watson, C., Greenhill, R., Caravani, A., & Banton, G. (2014). Climate finance: is it making a difference. *A review of the effectiveness of the Multilateral Climate Funds. Overseas Development Institute: London.(Forthcoming)*.

- Introduction to Climate Finance: https://unfccc.int/process/bodies/subsidiary-bodies/apa

- London school of economics:https://www.lse.ac.uk/granthaminstitute/explainers/what-is-climate-finance-and-where-will-it-come-from/

- https://www.climatepolicyinitiative.org/

- https://www.climatefinancelab.org

- https://www.greenclimate.fund

- https://www.sei.org/projects/sei-initiative-on-global-finance/

- https://www.climatepolicyinitiative.org/the-regions/cpi-in-india/

- https://carnegieindia.org

- https://indiaghgp.org/climate-finance

- https://www.ifc.org

- https://shaktifoundation.in/climate-finance/

- https://dst.gov.in/climate-change-programme

THE INFLUENCE OF DIGITALIZATION ON THE FINANCIAL DECISION-MAKING BEHAVIOUR OF INDIVIDUALS

Ms. Nidhi Hitendra Shah and Ms. Himanshi Mehta

Assistant Professor, Department of B.Com (Accounting & Finance), Gokhale Education Society's Shri Bhausaheb Vartak Arts, Commerce and Science College, Borivali (W) - 400091

ABSTRACT

This research study aims to examine how an individual's financial decision-making behaviour is influenced by digitalization. People now have more access to financial tools and information than ever, attributable to the quick development of technology and the spread of digital platforms. This study aims to comprehend how individual's decision-making and behaviour in handling their financial resources have been influenced by this growing digitalization. This study examines several aspects that may be impacted by digitalization, including behavioural biases, information overload, and ease of access, through a review of the literature and surveys. The results of this study will advance knowledge of the behavioural shifts brought about by digitalization in the financial sector and offer guidance to individuals, financial institutions, and policymakers so they can make prudent decisions.

Keywords: Digitalization, Financial Decision-Making

INTRODUCTION

Recent technological developments and the widespread usage of digital platforms have had a big impact on a lot of different areas of the lives of individuals, including how they make financial decisions. Individuals now have unparalleled access to financial platforms, tools, and information because of the growing digitalization of the financial industry. This study attempts to investigate how people's financial decision-making behaviour is affected by digitalization, looking at the potential and problems that come with living in a digital age.

Individual's financial management has changed dramatically as a result of the widespread use of digital financial tools, internet banking, and mobile applications. Digital platforms' speed and convenience have changed the way people make decisions, allowing them to make financial decisions while they're on the go and without always consulting a traditional financial advisor. Individuals could be better equipped to make wise financial decisions if there is more information and resources available.

But in addition to the benefits that come with digitalization, some possible drawbacks and prejudices could affect how people make financial decisions. People may experience information overload due to the abundance of information available in the digital sphere, which makes it challenging for them to sort through and digest the relevant information. Decision paralysis or rash, impulsive decisions could arise from this overload.

Furthermore, people may become overconfident and comfortable due to the ease of access that digital platforms allow. Individuals could place a great deal of reliance on the algorithms and suggestions provided by digital technologies, failing to critically assess the data or take other tactics into account. This dependence on automated guidance may make people more susceptible to financial theft and fraud.

Positive impact of digitalization on financial decision-making

● **Efficiency:** Automation of processes like data entry speeds up decision-making.

● **Real-time information:** Access to current market data improves decision quality.

● **Advanced analysis:** Tools for data analytics help identify trends and patterns.

● **Cost reduction:** Digital processes cut paperwork and transaction expenses.

● **Accessibility:** Digitalization extends financial services to remote and underserved areas.

● **Risk management:** Real-time data aids in identifying and mitigating risks.

● **Customer experience**: Personalized digital platforms enhance satisfaction.

● **Transparency:** Clear audit trails promote accountability and prevent fraud.

● **Innovation:** Digitalization fosters rapid adoption of new technologies.

● **Sustainability:** Reduced paper usage and energy consumption support environmental goals.

Negative impact of digitalization on financial decision-making

- **Security risks:** Increased vulnerability to data breaches and cyber-attacks.

- **Over-Reliance on technology:** Susceptibility to disruptions and failures in digital systems.

- **Lack of human judgment:** Reduced emphasis on qualitative insights in decision-making.

- **Increased complexity:** Challenges in integrating multiple digital tools and platforms.

- **Job displacement:** Risk of unemployment due to automation of certain roles.

- **Bias and discrimination:** Amplification of biases in algorithmic decision-making.

- **Loss of personal touch:** Reduced human interaction with customers.

- **Digital divide:** Exclusion of those with limited access to technology.

- **Regulatory challenges:** Need for updated regulations to address digital issues.

- **Privacy concerns:** Risks associated with the collection and sharing of personal data.

REVIEW OF LITERATURE

Daniela Marconi, Marco Marinucci & Giovanna Paladino (2022): Study 'Digitalization, Financial Knowledge and financial decision'. This article answers these questions using a new dataset of 4,000 individuals based on two rounds of interviews from 2019 to 2021. We found that digital and financial skills are important to shaping behaviours and attitudes, including digital financial services. It concluded that digital and financial skills positively correlate with education and income levels and that the gender gap is wide.

Gowri Shantha & Seetha Vedantam (2019): Study 'Influence of news on rational decision making by financial market investors" This study aims to understand and examine the impact of news on the decisions of individual investors. The basis/method of investors' assumption of news processing is based on Broadbent's (1958) analysis theory which assesses the importance of the investor, the amount of attention, in uncertainty due to the uncertainty of investors' information, which is inconsistent with the theory of efficient markets. Finally, investors' decisions depend on the degree of information access, information content, information influence, and specific internal and external factors, including the major investor in a particular condition.

STATEMENT OF THE PROBLEM

In digitalization there are many options available, what is the behaviour at the time of selecting the source or tool or decision making.

OBJECTIVES

1. To Study the influence of digitalization on the financial decision-making behaviours of individuals.

2. To Study the emerging trends in digitalization.

3. To Study the individual's behaviour in financial management through the use of digitalization.

HYPOTHESIS

H0: Digitalization does not influence the financial decision-making behaviour of individuals.

H1: Digitalization influences the financial decision-making behaviour of individuals.

RESEARCH METHODOLOGY

The study is based on primary data and secondary data, primary data collected from 153 respondents who reside in Mumbai. They were asked questions on the influence of digitalization on financial decision-making behaviours. The tools used in this paper are tables, pie charts, and percentage methods, which help to analyze the data properly and easily.

Scope

The scope of this study is to look at how digitalization affects individuals' financial decision-making behaviour. It attempts to investigate how individual's decision-making processes related to finance have changed as a result of the greater accessibility of digital platforms, tools, and information. The study will concentrate on the positive and negative impact of digitalization and identify the elements influencing individual decisions in the digital finance world.

Significance

This research has significance because it adds to the knowledge of how individuals make financial decisions in the digital age. Understanding how individuals are adjusting their decision-making processes in light of the ongoing digitalization of the financial world is crucial. This study will shed light on the variables that affect an individual's financial decisions and the ways that digitalization either helps or hinders making wise decisions. Policymakers, financial organizations, and individuals looking to maximize the benefits of digitalization while minimizing the drawbacks may find great value in the findings.

LIMITATIONS OF THE STUDY

● The primary data collected for a study on users' preferences is limited to Mumbai only.

● Primary data may influenced by the behaviour and mood of the respondents of whom the survey is conducted.

Data Interpretation

Table No. 1 - Demographic Profile

Gender			Age			Occupation / Profession			
Male	Female	Prefer not to say	18-30	31-45	46-60	Employed	Self – Employed	Students	Other
35.9%	62.7%	1.3%	88.2%	7.8%	3.9%	13.1%	9.8%	73.9%	3.3%

Chart No. 1 – Tools used for financial management
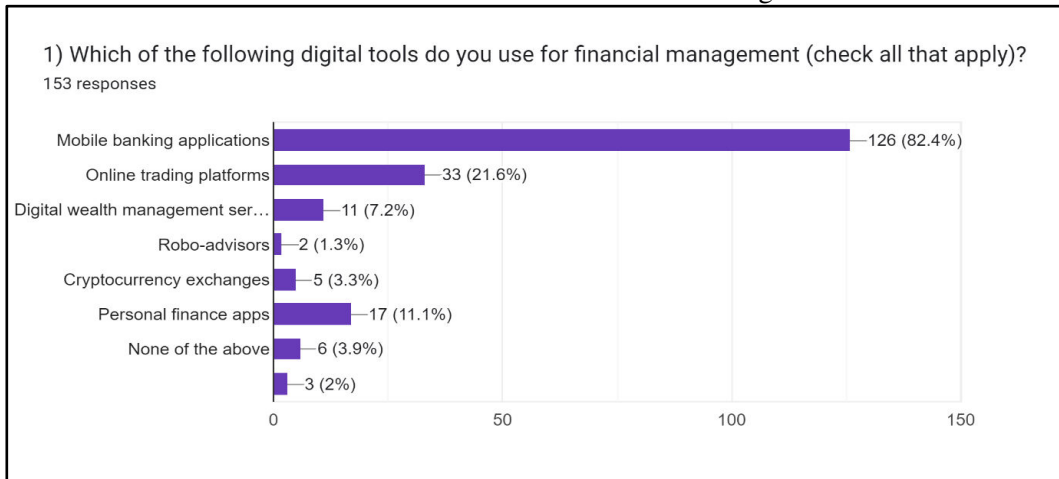
The data shows the percentage of respondents who use different digital tools for financial management. Mobile banking is the most popular tool (82.4%), followed by online trading (21.6%) and personal finance (11.1%). Digital wealth management (7.2%), other tools (5.9%), cryptocurrency exchange (3.3%), and robo adviser (1.3%) are less popular.

Chart No. 2 – Frequency of usage
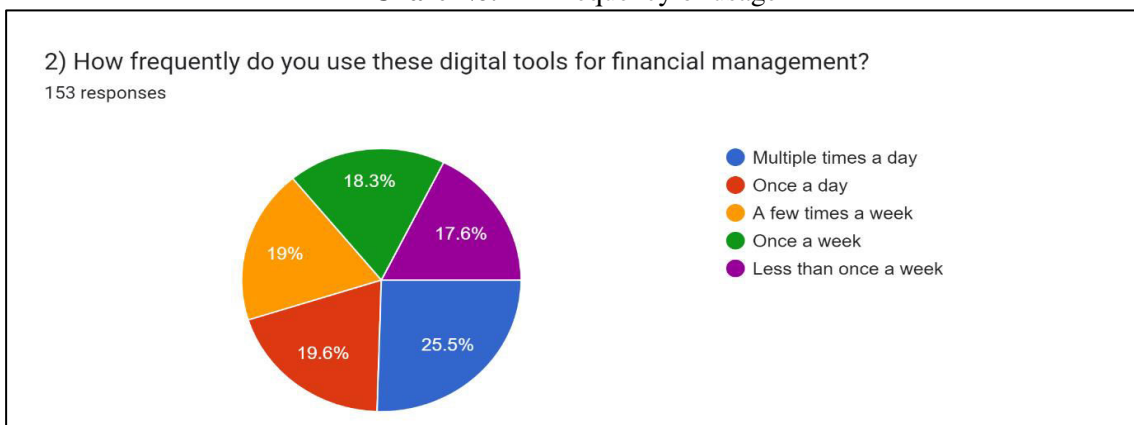
The data reveals that respondents use digital tools for financial management with varying frequency such as multiple times a day (25.5%), once a day (19.6%), a few times a week (19%), once a week (18.3%), once a month (17.6%).

Table No. 2 – Decision making behaviours

3) How has digitalization in finance affected your decision-making behaviours?	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Digitalization has made it easier for me to access and manage my financial information.	20.92%	66.67%	11.11%	0.65%	0.65%
Digitalization has provided me with more options and flexibility in making financial decisions.	23.53%	56.86%	18.30%	0.00%	1.31%
Digitalization has increased my confidence in making financial decisions.	20.26%	58.82%	18.30%	1.96%	0.65%
Digitalization has decreased the time required to make financial decisions.	23.53%	54.90%	16.34%	3.27%	1.96%

It was observed that most of the respondents agree digitalization has made accessing and managing financial information easier (86.96%), providing more options and flexibility in decisions (80.39%), increased confidence (79.08%), and reduced decision time (78.43%). Few disagree (1.3%, 1.31%, 2.61%, and 5.23%, respectively), while many are neutral (11.11%, 18.3%, 18.3%, and 16.34%). Overall, digitalization positively impacts decision-making behaviours in finance.

Table No. 3 – Impact of Digitalization

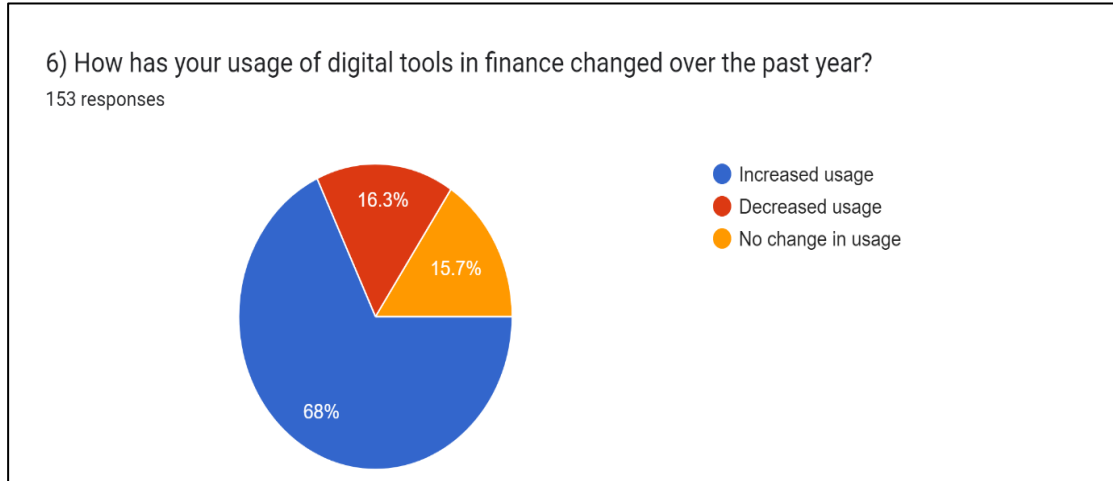| 4) To what extent do you agree with the following statements regarding the impact of digitalization on your financial outcomes?	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Digitalization has improved my ability to track and monitor my financial goals.	16.99%	71.24%	11.11%	0.65%	0.00%
Digitalization has helped me achieve better investment returns.	18.95%	58.17%	19.61%	3.27%	0.00%
Digitalization has increased my financial literacy and knowledge.	22.88%	63.40%	11.76%	1.31%	0.65%
Digitalization has reduced the risk of fraud or unauthorized access to my financial accounts.	16.99%	47.71%	26.14%	6.54%	2.61%

It was analyzed that most of the respondents agree that digitalization has enhanced their ability to track financial goals (88.23%), improved investment returns (77.12%), increased financial literacy (86.28%), and reduced fraud risk (64.7%). Few disagree (0.65%, 3.27%, 1.96%, and 9.15%, respectively), while many are neutral (11.11%, 19.61%, 11.76%, and 26.14%). Overall, digitalization positively impacts financial outcomes.

Table No. 4 – Emerging Trends in Financial Management

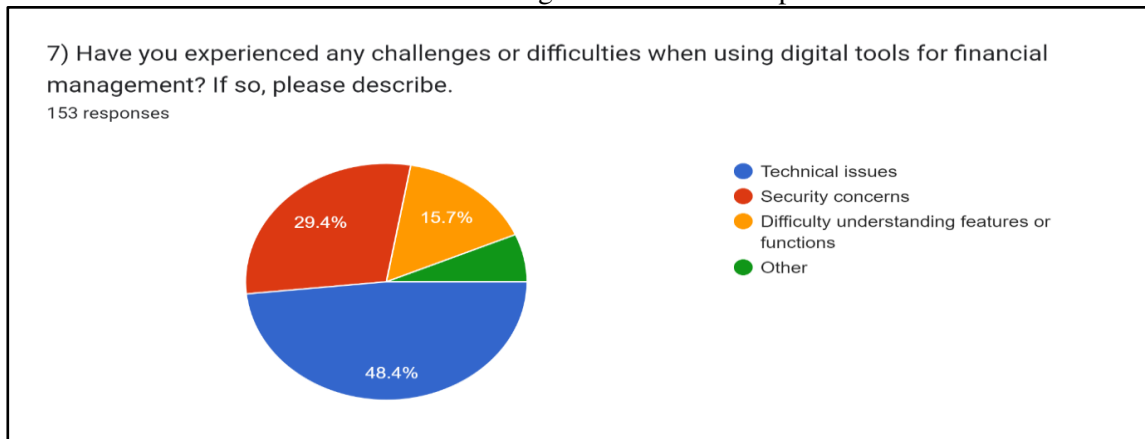| 5) How aware are you of the following emerging trends in financial management?	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Use of AI-powered robo-advisors for investment recommendations.	15.69%	47.71%	20.26%	13.73%	2.61%
Integration of social media and finance for personalized recommendations.	13.07%	62.75%	16.99%	4.58%	2.61%
Expansion of mobile payment options and digital currencies.	22.88%	63.40%	11.76%	1.31%	0.65%
Adoption of blockchain technology in financial transactions.	18.30%	41.83%	18.30%	16.99%	4.58%

The majority of respondents view AI-powered robo-advisors (63.4%), integration of social media in finance (75.82%), expansion of mobile payments and digital currencies (86.28%), and adoption of blockchain technology (81.7%) as beneficial trends. Few disagree (16.34%, 7.19%, 1.96%, and 5.23%, respectively), while many are neutral (20.26%, 16.99%, 11.76%, and 11.76%). Overall, respondents are positive about these emerging trends.

Chart No. 3 – Past year usage of digital tools

6) How has your usage of digital tools in finance changed over the past year?
153 responses

- Increased usage
- Decreased usage
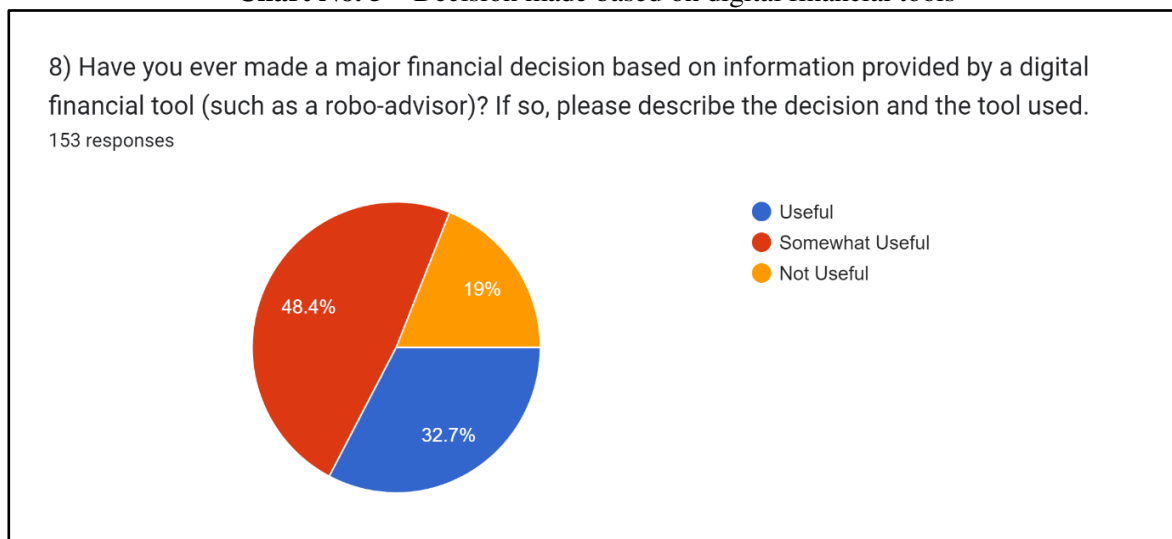- No change in usage

16.3% / 15.7% / 68%

It was observed that 68% of respondents increased their usage of digital finance tools in the past year, reflecting growing demand. 15.7% reported no change, indicating stable usage, while 16.3% decreased usage, suggesting reduced need or preference.

Chart No. 4 – Challenges or difficulties experienced

7) Have you experienced any challenges or difficulties when using digital tools for financial management? If so, please describe.
153 responses

- Technical issues
- Security concerns
- Difficulty understanding features or functions
- Other

29.4% / 15.7% / 48.4%

The data shows that the respondents face three main challenges in using digital tools in finance: technical issues (48.4%), security concerns (29.4%), and difficulty in understanding the features or functions (15.7%). These challenges suggest that digital tools need to improve their reliability, security, and user-friendliness.

Chart No. 5 – Decision made based on digital financial tools

8) Have you ever made a major financial decision based on information provided by a digital financial tool (such as a robo-advisor)? If so, please describe the decision and the tool used.
153 responses

- Useful
- Somewhat Useful
- Not Useful

48.4% / 19% / 32.7%

81.1% of respondents find the information from digital financial tools useful or somewhat useful, reflecting a positive attitude. However, 19% do not find it useful, indicating distrust.

**Chart No. 6 –** Importance of digital tools for financial management
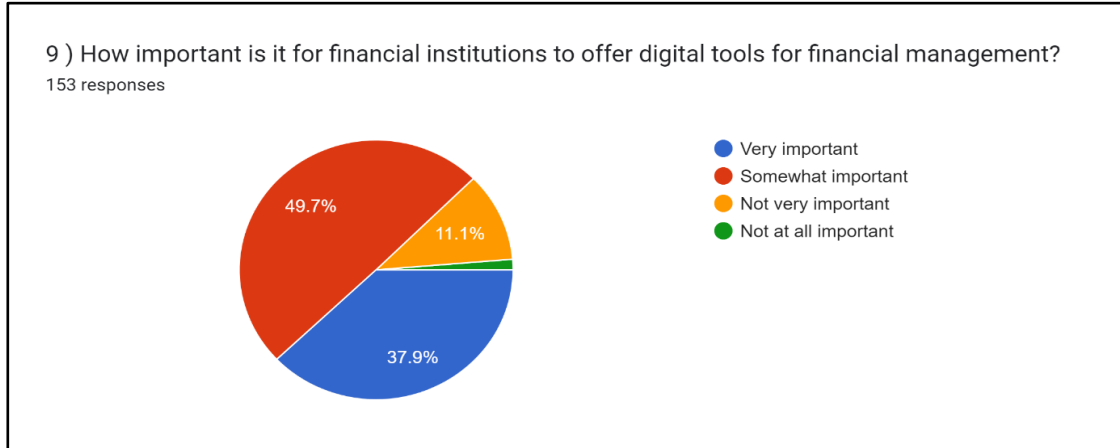
It was observed that 87.6% of respondents deem digital tools for financial management offered by financial institutions as somewhat or very important, indicating high demand. Conversely, only 11.1% view them as not very important suggesting a low interest or satisfaction.

Chart No. 7 – Role of digital financial tools in the future
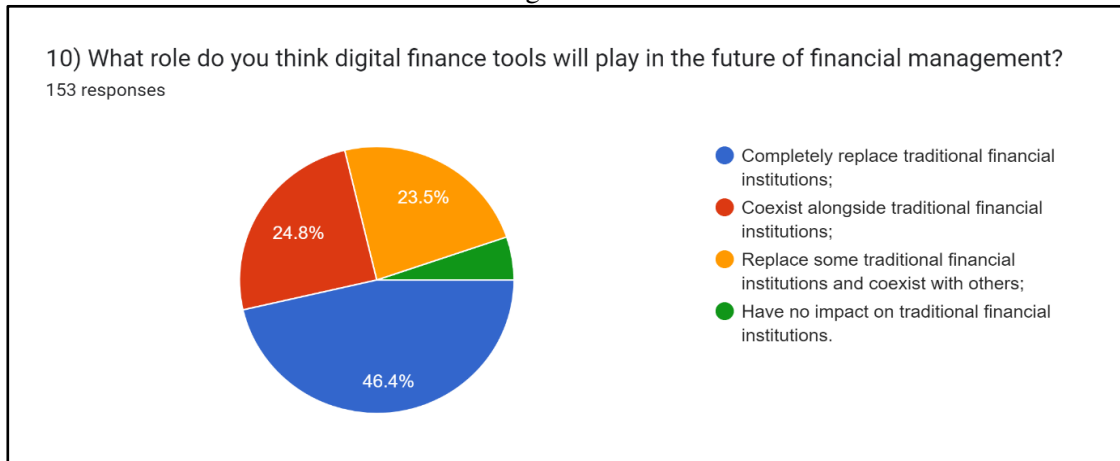

The data indicates the views of the respondents on the future of digital finance tools and traditional financial institutions. 46.4% of respondents anticipate digital finance tools will replace traditional institutions, while 24.8% foresee coexistence. Another 23.5% predict replacement for some institutions and coexistence for others. Only 5.2% believe digital tools won't impact traditional finance.

Chart No. 8 – Use of personal data by finance providers concerning individuals
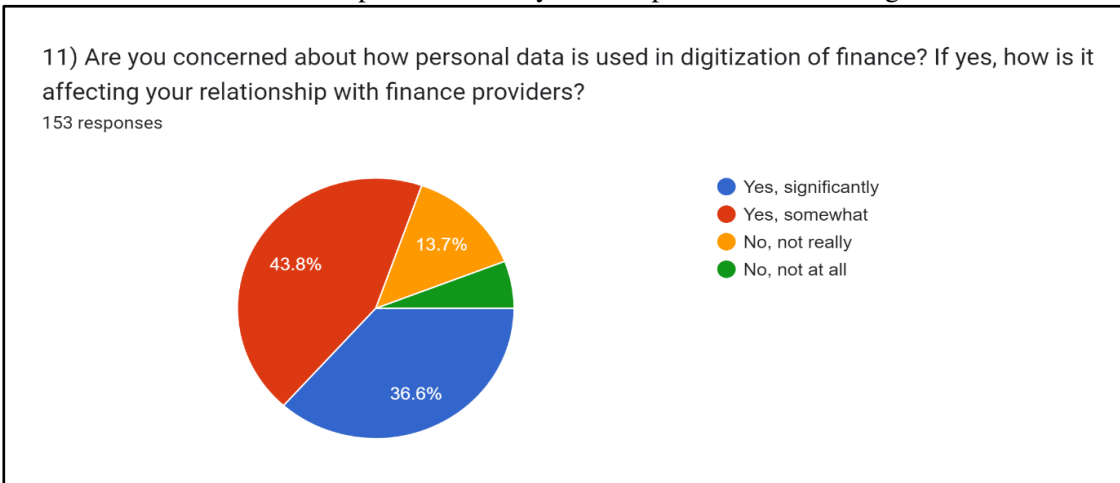

The above chart indicates the relationship between the finance provider and respondents about personal data usage. 80.4% of respondents report a positive or moderate effect, while 16.3% perceive a negative or negligible impact.

Chart No. 9 – Benefits of digitalization to the average consumer
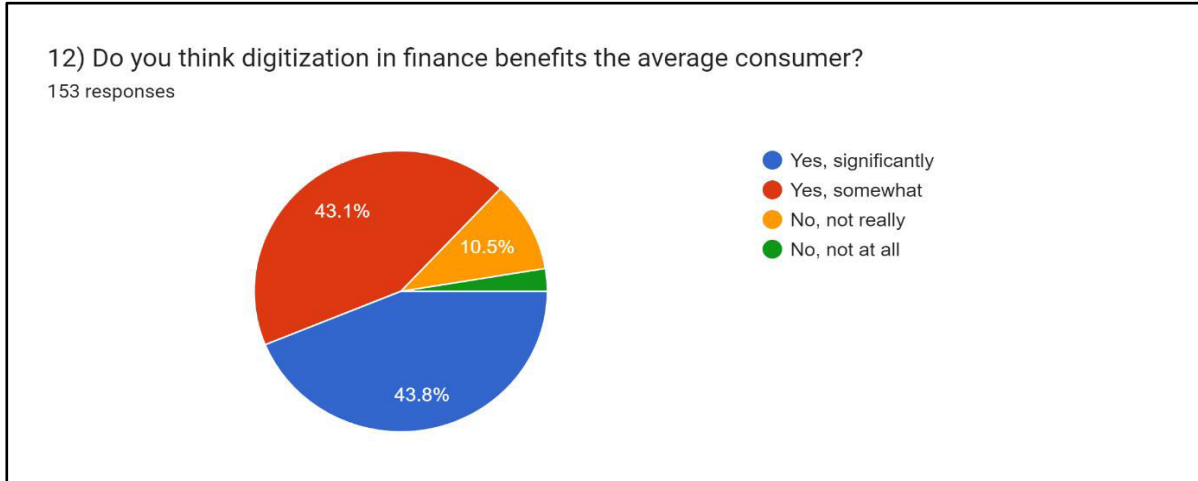
According to the respondents, (86.9%) consider digitalization in finance beneficial, and (13.1%) consider a negative attitude or lack of awareness of its benefits.

Chart No. 10 – Factor that motivates the use of digital tools
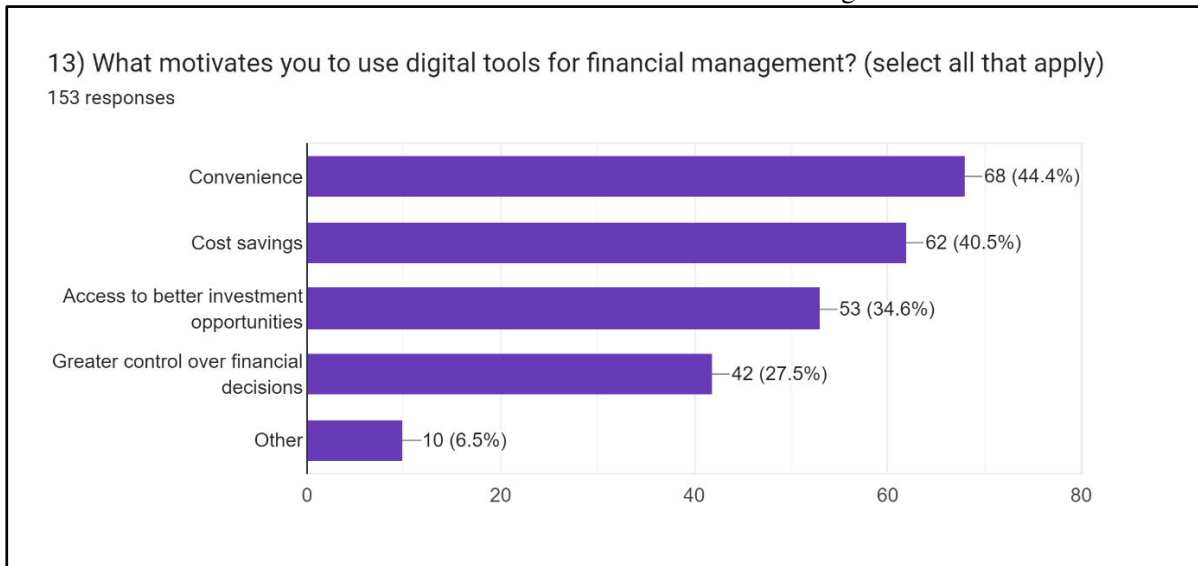
The data shows why the respondents use digital tools for financial management. The main reasons are convenience (44.4%), cost saving (40.5%), better investment opportunities (34.6%), and great content (27.5%). Some respondents have other reasons (6.5%). The main reason are convenience (44.4%). This indicates that digital tools offer ease, and comfort in managing one's finances, help reduce expenses and fees in financial transactions, access to better investment opportunities, and offer valuable information and advice in making financial decisions.

CONCLUSION

The conclusions of this study show that people's behavior when making financial decisions has been greatly impacted by digitization. Positive effects on decision-making processes were indicated by the majority of respondents, and they included faster decision times, more options and flexibility, improved confidence, and simpler access to financial information. The study also showed that digitalization has a favorable impact on financial outcomes, including the ability to track financial objectives, enhance investment returns, raise financial literacy, and lower the risk of fraud.

The expansion of mobile payments and digital currencies, the use of blockchain technology, the use of AI-powered robo-advisors, and the integration of social media in finance were among the growing trends in financial management that the respondents expressed awareness of and optimism about. The majority of respondents increased their use of digital finance tools during the last year, indicating a growing demand for them. Nonetheless, problems were reported, with the primary issues experienced by individuals being

technological problems, security concerns, and a lack of understanding of features or functionalities. This indicates that digital technologies' dependability, security, and usability need to be improved.

A significant proportion of participants in the study indicated that digital technologies play a crucial role in financial management. Digital banking tools appear to have an optimistic future ahead of them; a significant number of participants expect them to either coexist or replace established institutions.

SUGGESTIONS

Policymakers should encourage the industry to prioritize resolving technical issues to enhance the reliability and user experience of digital financial tools. Industry experts should collaborate to implement and update robust security protocols to safeguard user data. Policymakers can play a role in establishing clear regulations on data security.

Policymakers and industry experts should collaborate to promote user education on digital tools. Industry players can invest in user-friendly interfaces and educational campaigns to improve understanding. Policymakers should work with the industry to ensure a balanced approach to adopting emerging technologies. It's crucial to integrate new trends seamlessly while maintaining a secure and user-friendly environment. Industry experts should continuously monitor user experiences, and policymakers should adapt regulations based on changing trends and challenges in the digital finance landscape.

Policymakers need to establish and enforce regulations that ensure transparent data usage. Industry players should actively comply with privacy regulations to maintain user trust.

Policymakers and industry experts should collaborate on sustained efforts to promote financial education and literacy. Investing in educational programs can empower users to make informed decisions. Policymakers should foster collaboration among industry stakeholders to establish and update ethical guidelines. Clear regulations can ensure the ethical use of technology in finance, creating a secure digital financial ecosystem

REFERENCES

1. Marconi, D., Marinucci, M., & Paladino, G. (2023). Digitalization, Financial Knowledge and Financial Decisions. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.4463143

2. Gowri B., S., & Seetha Ram, V. (2019, August 30). Influence of news on rational decision making by financial market investors. *Investment Management and Financial Innovations*, *16*(3), 142–156. https://doi.org/10.21511/imfi.16(3).2019.14

3. Pintér, V., Bagó, P., Berényi, L., Molnár, L., Deutsch, N., Szigeti, G., & Pintér, T. (2021). How do Digitalization and the Fintech Phenomenon Affect Financial Decision-Making in the Younger Generation? *Acta Polytechnica Hungarica*, *18*(11), 191–208. https://doi.org/10.12700/aph.18.11.2021.11.11

4. Erkut, B., Kaya, T., Lehmann-Waffenschmidt, M., Mahendru, M., Sharma, G. D., Srivastava, A. K., & Srivastava, M. (2018, November 12). A fresh look on financial decision-making from the plasticity perspective. *International Journal of Ethics and Systems*, *34*(4), 426–441. https://doi.org/10.1108/ijoes-02-2018-0022

INDIA TOWARDS CASHLESS ECONOMY- AN OVERVIEW

Ms Kankana Ghosh

Narsee Monjee College of Commerce and Economics, Vile Parle, Mumbai

ABSTRACT

A cashless economy operates primarily through electronic modes of payment and receipt, minimizing the reliance on physical currency. This trend offers enhanced convenience, speed, and ease in conducting financial transactions. While traditional economies rely on physical currency movement, cashless economies thrive on digital instruments, fostering innovation and efficiency. India has been a prominent example of progress in digital financial inclusion, particularly through initiatives like the Pradhan Mantri Jan-Dhan Yojana (PMJDY), Direct Benefit Transfer (DBT), Digital India Movement and many more. The study is focused on comprehensively analysing different facets of India's transition to a cashless economy Additionally, the study aims to gauge the perceptions of young people regarding India's ongoing shift towards a cashless economy. And it endeavours to explore the potential relationship between the adoption of cashless payment methods and its implications for enhancing financial inclusion within the population using data from both primary and secondary sources. The study is structured into three main sections. Firstly, it offers a global overview of the trend towards cashless economies. Secondly, it examines the Indian context within this trend. Finally, it conducts a primary survey among young Indians to understand their perceptions of India's transition to a cashless economy. Key Words: Cashless Economy, payment system indicator, financial Inclusion, digitalization.

Keywords: Cashless Economy, payment system indicator, financial Inclusion, digitalization.

INTRODUCTION

In recent years, there has been a notable global shift towards cashless economies, driven by advancements in technology and changing consumer preferences. A cashless economy operates primarily through electronic modes of payment and receipt, minimizing the reliance on physical currency. This trend offers enhanced convenience, speed, and ease in conducting financial transactions. While traditional economies rely on physical currency movement, cashless economies thrive on digital instruments, fostering innovation and efficiency.

Additionally, cashless economies introduce features like contactless payments, biometric authentication, and blockchain-based transactions, enhancing both security and user experience. In today's world of technology, it is important to understand Digital Financial Literacy in order to adapt to the rapidly changing financial landscape (Morgan et al., 2020). Digital Financial Literacy involves being financially literate on digital platforms (Lyons & Kass-Hanna, 2021a), which means having the skills to use digital technologies to manage financial resources and achieve good financial health.It is important to have Digital Financial Literacy when the government offers Digital Financial Services to customers, as it is essential for conducting financial transactions.

A recent report by World bank mentioned that COVID- 19 boosted the relinquishment of digital financial services about 40 percent of grown-ups in developing country banning China who made a digital trafficker payment using a card, phone, or the internet, and further than one- third of grown-ups in developing country who paid a mileage bill directly from an account, did so for the first time after the launch of the epidemic.

India has been a prominent example of progress in digital financial transaction as well as financial inclusion, particularly through initiatives like the Pradhan Mantri Jan-Dhan Yojana (PMJDY) scheme, which has provided millions of people with access to formal financial services. Leveraging technology, the government has facilitated the quick opening of bank accounts and linked them to biometric identification and mobile numbers through schemes like Aadhaar. These accounts have become crucial for delivering government payments efficiently, as seen in the Direct Benefit Transfer (DBT) system. India is using the "Digital India Movement" and better telecommunications companies like TCS are helping by providing services to open basic bank accounts and smart cards with biometric information.

A recent survey by spherical insights and Consulting(https://www.linkedin.com/pulse/2024-spherical-yysyc/) identified few most useful cashless instruments used globally such as Buy Now Pay Later, Digital Payment Wallets, AML & Anti-Fraud Solutions, Virtual Currencies, Smart Payments, Biometric Payments, E-ticketing. Whereas in India a few of these payment indicators are used by an average Indians. Moreover, these advancements promote a motive for financial inclusion in countries like India by providing banking services to the unbanked population, ultimately fuelling India's economic expansion through improved accessibility to financial resources and accumulated cash deposit with financial sector.

However, there are still challenges to making digital finance work in India. While many people have opened bank accounts, almost half of them didn't use them last year. This is especially true for people in rural and poorer areas who don't have as much access to technology, lack of digital and financial knowledge.

LITERATURE REVIEW:

1. ***Determinants of digital financial inclusion in India:*** *Evidence from the World Bank's global Index database Nandru*; *Chandragiri; Velayudhan Posted Date: March 30th, 2021-*This World Bank report has focussed on different Government initiatives on digital innovation. The study investigated the demand side determinants of accessibility of digital financial services, which is measured by three variables such as ownership of debit card, credit card, and mobile money account based on 2017 World Bank's global Index database.

2. ***A Study of Digital Financial Inclusion in India with Special Reference to Payment Banks and Small Banks***. **-** *The thesis completed by Tiwari, Tanu from Amity Business School Lucknow,2020* identified different determinants of Digital financial inclusion in India like ATM card, POS, banking access, types of bank accounts, frequency of bank use, insurance awareness, Payment's bank across three different districts of UP.

3. ***Financial Inclusion and Digital Identity Lessons from India.*** *– The article written by, President and Co-CEO OPay-Nigeria, May 12, 2023*, (www.linkedin.com) -highlighted the success story and growth path of Indian digital financial journey and expressed his willing ness to follow the path by African Countries. The results found that show that for the European countries, the GNI per capita, population density, inflation, and internet users have a positive and significant impact on financial inclusion across all the regressions, and they are consistent with the findings in the literature

RATIONALE AND GAP ANALYSIS

Cashless payment system today-operating in cash cost countries about 0.5% of their GDP per year, but it's not the only reason why the world is shifting towards cashless economy. The other reason is demand, the young and new generation is demanding convenience, fast, easy and more secure way of payment. After Covid 19 the system payment has become more user friendly. Well digital payment systems help the government to track and monitor each and every transaction but the downside is it concerns privacy and cyber-attacks. Beside this in remote areas there is always a problem of connection and illiteracy, hence they have no choice but to rely on cash.

OBJECTIVES OF THE STUDY:

- To study the position of India globally in the journey towards cashless economy.

- To study the progression of payment system indicators utilized in India over time

- To study the reasons behind opting for cashless payments over cash transactions.

- To study perception of youth about India's transition towards cashless economy.

- To study the relation between cashless payment and financial inclusion.

RESEARCH METHODOLOGY

Research design is descriptive. The data for the study is collected from both primary and secondary sources. Primary data is generated through an online survey. The population targeted for the study are Mumbai based individuals ranging from the age group of 18 to 25 years. A sample of 85 respondents is collected by randomly sending the survey forms through communication means like email and WhatsApp, etc. And secondary data is collected via reliable website mainly RBI database. Different statistical tools Such as frequency distribution, graphical data analysis, are used to find conclusion of this study
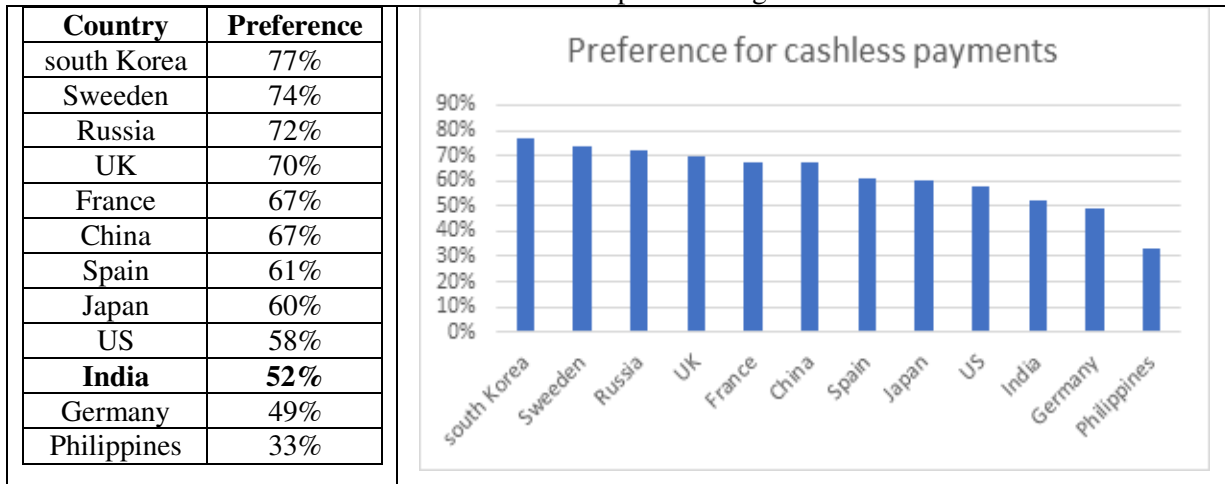
This study is divided into three segments. Firstly, it begins with a brief introduction to a broad global perspective on the trend toward cashless economies. Secondly, it examines the specific scenario in India. Finally, the study delves into a primary survey targeting college students to explore their perceptions of India's transition to a cashless economy.

SCOPE OF THE STUDY:

The study focussed on only few parameters of cashless economy and financial inclusion with primary survey based on a limited set of respondents. An extended research work can be framed on the topic using more variables and a broader data base.

DATA ANALYSIS 1:

Table 1: chart 1: A Comprehensive global outlook

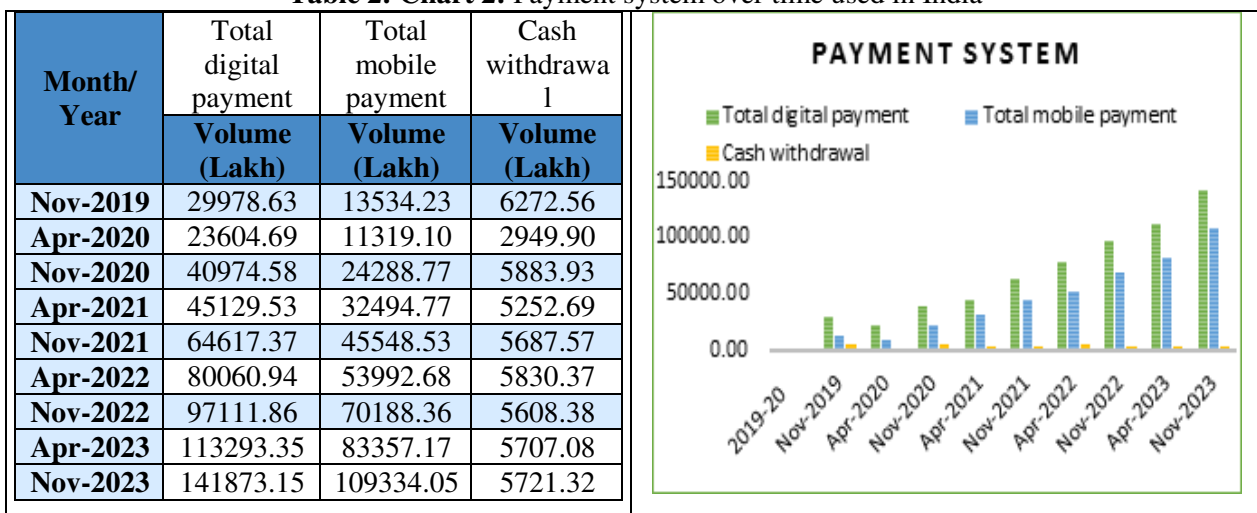| Country	Preference
south Korea	77%
Sweeden	74%
Russia	72%
UK	70%
France	67%
China	67%
Spain	61%
Japan	60%
US	58%
India	**52%**
Germany	49%
Philippines	33%

Source: Global web Index.

- The provided data indicates that India lags behind South Korea, Sweden, China, and Spain in embracing a cashless economy.

- Nevertheless, the fact that 52% of India's total population has embraced evolving technology is noteworthy, especially considering our infrastructural constraints, limited accessibility of network and unavailability of updated devices.

- South Koreans overwhelmingly favour cashless payments, with only 13 percent of transactions involving cash. In contrast, countries like Japan, Spain, and France show a strong preference for cashless payments

- In some developing nations like the Philippines, Egypt, and Morocco, cash remains the predominant choice for payments, with only around one-third of the population preferring cashless options.
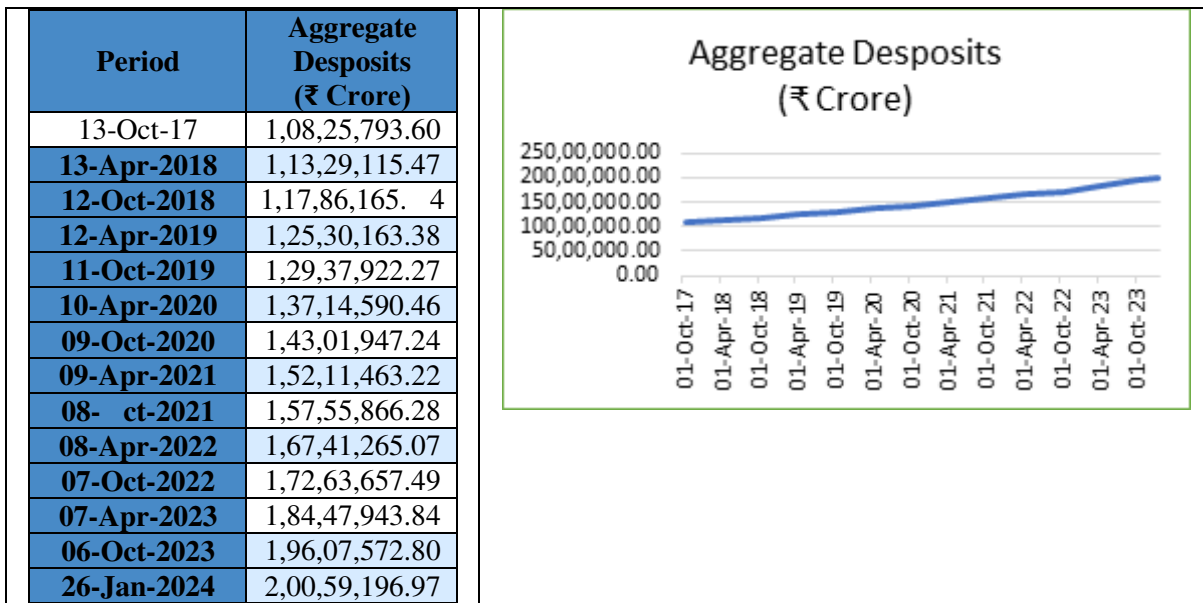
DATA ANALYSIS 2: Indian Overview:

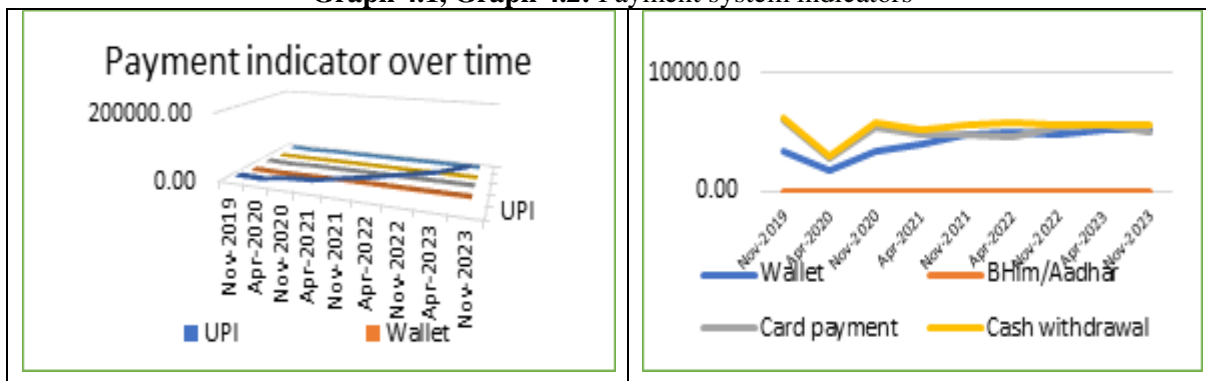**Table 2: Chart 2:** Payment system over time used in India

Month/ Year	Total digital payment Volume (Lakh)	Total mobile payment Volume (Lakh)	Cash withdrawal Volume (Lakh)
Nov-2019	29978.63	13534.23	6272.56
Apr-2020	23604.69	11319.10	2949.90
Nov-2020	40974.58	24288.77	5883.93
Apr-2021	45129.53	32494.77	5252.69
Nov-2021	64617.37	45548.53	5687.57
Apr-2022	80060.94	53992.68	5830.37
Nov-2022	97111.86	70188.36	5608.38
Apr-2023	113293.35	83357.17	5707.08
Nov-2023	141873.15	109334.05	5721.32

Source: RBIB table no 43-payment system indicators

Table 3: Chart 3: Total amount of bank account deposit in India

Period	Aggregate Desposits (₹ Crore)
13-Oct-17	1,08,25,793.60
13-Apr-2018	1,13,29,115.47
12-Oct-2018	1,17,86,165. 4
12-Apr-2019	1,25,30,163.38
11-Oct-2019	1,29,37,922.27
10-Apr-2020	1,37,14,590.46
09-Oct-2020	1,43,01,947.24
09-Apr-2021	1,52,11,463.22
08- ct-2021	1,57,55,866.28
08-Apr-2022	1,67,41,265.07
07-Oct-2022	1,72,63,657.49
07-Apr-2023	1,84,47,943.84
06-Oct-2023	1,96,07,572.80
26-Jan-2024	2,00,59,196.97

Source: RBI data, 50 macro economic indicators.

Graph 4.1, Graph 4.2: Payment system indicators

Source: RBIB table no 43-payment system indicators
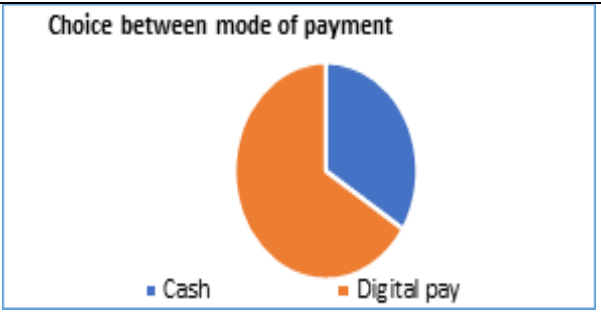
In this section, the study examines India's progression towards cashless payments, based on RBI data indicators of the payment system. The following observations emerge:

- Between November 2019 and November 2023, there is a significant surge in the total usage of digital payment systems among the Indian population.

- Payments via mobile devices show a rising trend, and they are still less preferred compared to other digital payment methods such as cards, online transfers, and Pos.

- Over the past four years, the total volume of cash withdrawals has remained nearly constant. Considering the population growth and inflationary trends in India, it indicates a declining preference for cash payments.

- Table 3 demonstrates a noticeable uptrend in bank deposits from 2017 to January 2024, indicating a growing preference for cashless transactions over cash-based ones among individuals.

- Table 4.1 and Chart 4.1 highlight that the UPI payment system exhibits a higher growth rate compared to all other payment methods.

- With reference to Table 4.2 and Chart 4.2, when excluding UPI, both mobile wallet and card payments show a progressive trend. However, the utilization of Bhim Aadhar-enabled payment systems remains limited over the past four years

DATA ANALYSIS 3: Primary data analysis:

Table 5 /Graph 5: Choice between cashless transaction and cash transaction.
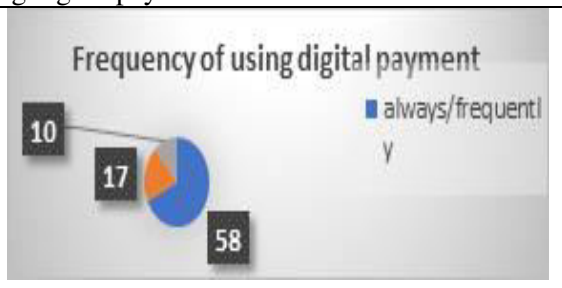
Mode of Transaction	Cash	Digital pay
No of respondents	34	51
Percentage of respondents	40%	60%

Choice between mode of payment
- Cash
- Digital pay

Source: primary survey

Table 6/Graph 6: Frequency of using digital payment method
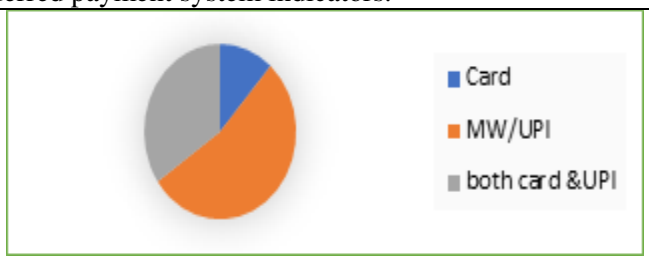
Frequency of use	No of respondents	Percentage of responents
always/frequentl	58	68
Occasionally	17	20
Rarely	10	12

Frequency of using digital payment
- always/frequently
10 17 58

Source: primary survey

Table 7/Graph 7 Preferred payment system indicators:
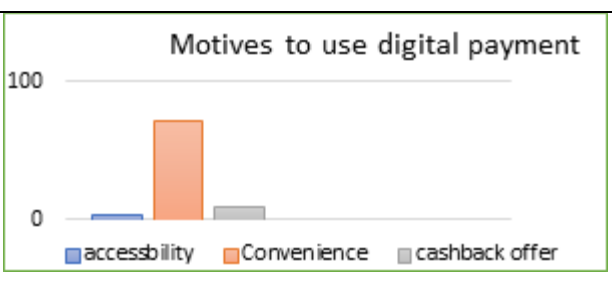
Card	MW/UPI	both card &UPI
9	42	27
10.58%	49.41%	31.67%

- Card
- MW/UPI
- both card &UPI

Source: primary survey

Table 8 /Graph 8: Reasons behind opting for cashless payments
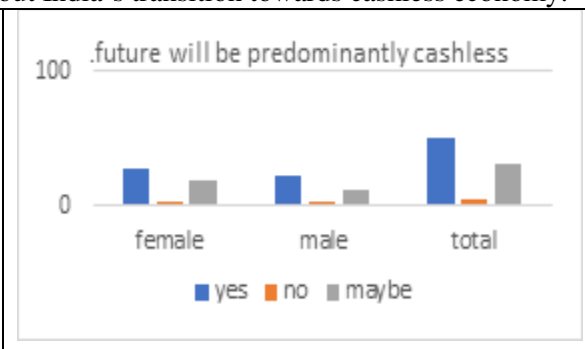
Accessbility	Convenience	Cashback Offer
3	72	9
3.52%	84.70%	10.58%

Motives to use digital payment
- accessbility
- Convenience
- cashback offer

Source: primary survey

Table 9 /Graph 9: Perception of youth about India's transition towards cashless economy:

	yes	no	maybe
female	27	3	19
male	23	2	12
total	50	5	31
	58.82%	5.88%	36.47%

.future will be predominantly cashless
female male total
- yes
- no
- maybe

Source: primary survey

Table 10 /Graph10: Can a cashless economy contribute to greater financial inclusion?

Agre	45	52.94%
Disagree	7	8.23%
Strongly A	18	21.17%
Neutral	15	17.64%
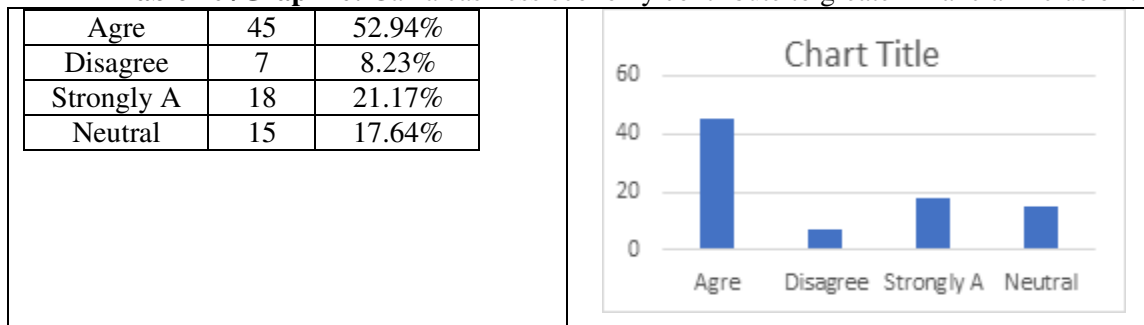
Source: primary survey

The following observations are found from the primary survey undertaken

- 60% of respondents prefer to do transaction using digital payments mode, while 40% are in favour of cash transactions.

- Among respondents, 68% always prefer digital transactions, 20% use them occasionally, and only 20% rarely use cashless methods.

- UPI or mobile wallets are the top choice, favoured by 49% of respondents, followed by 31.6% who prefer both card and UPI payments, with card payments being less popular.

- Convenience is cited as the primary reason for opting for cashless payments by 85% of respondents.

- Regarding the perception of the cashless economy's future among young respondents, 59% are confident, 36% are positive but not clearly expressing their preference, and only 6% are giving negative views.

- Around 70% of respondents are accepting the point that more cashless transaction leads towards increased digital financial inclusion.

CONCLUSION:

Based on the findings of data analysis 1, it can be concluded that India has significantly advanced in its transition towards a cashless economy.

Upon examining both data analyses 2 and 3, notable similarities emerge in terms of the preference for cashless transactions and the choice of payment instruments. UPI consistently stands out as the most preferred payment instrument in both national data and primary data analyses.

To establish a connection between cashless modes of payment and financial inclusion, the primary survey respondents express clear and open views. When considering the national-level data, the increasing amount of bank deposits and decreasing amount of cash withdrawals can be cited to support the hypothesis that a shift towards cashless transactions is positively influencing financial inclusion.

SUGGESTIONS

After the entire study of both national level and primary level data following are few suggestions for movement of India towards cashless Economy:

- Increasing digital financial literacy

- Extension of digital infrastructure and digital services from both public and private sector.

- Improvement in general awareness regarding digital fraud and cyber security.

- Governments and businesses need to work together to make sure that digital products are easy to use, personalized, and affordable

BIBLIOGRAPHY

i. **world Economic Forum Katharina Buchholz Data Journalist, Statista,Jan2021**

   https://www.weforum.org/agenda/2021/01/this-chart-shows-cash-cashless-finance-payment-methods-global-preference/

ii. Spherical insights and commission https://www.linkedin.com/pulse/discover-top-10-cashless-economy-trends-2024-spherical-yysyc/

iii. Cashless Economy-is India Ready For It? Sems Foundation . FJanuary 18, 2023

iv. Financial Inclusion, Poverty, and Income Inequality: Evidence from European Countries

Tsouli [] Full text link: https://doi.org/10.15388%2Fekon.2022.101.1.3

v. Digital financial inclusion: next frontiers-challenges and opportunities Malladi; Soni; Srinivasan [Full text link: https://doi.org/10.1007/s40012-021-00328-5

vi. Determinants of digital financial inclusion in India: Evidence from the World Bank's global ndex database Nandru; Chendragiri; Velayutham Posted Date: March 30th, 2021

Full text link: https://doi.org/10.21203/rs.3.rs-329541/v1

vii. A Look at The Rising Popularity of Cashless Economies Around the World by Zhang ,Chen Yang,Guo Zhenying,Amiya Bhaumik, IJRBT,vol 7 n0 3,2-23) https://ejournal.lucp.net/index.php/ijrtbt/article/view/2085

PERFORMANCE OF PRIMARY AGRICULTURAL CREDIT SOCIETIES FOR A DECADE

Gauri Pratap Pimple
Research Scholar, Mumbai Univarsity (Research Centre - K.P.B. Hinduja College of Commerce and Economics, Churni Road, Mumbai)

INTRODUCTION

Primary Agricultural Credit Society (PASC) is grass root level institution established to provide short term credit to its members. The short-term co-operative credit structure comprises of a three-tier system - Primary Agricultural Credit Societies (PACS) at the village level, Central Cooperative Banks (CCBs) at the district level and State Cooperative Banks (StCBs) at the State level. PASC mobilize deposits from its members. Along with these deposits they use borrowings from higher tiers for providing loans to needy members. PACS provide short term, medium term and long term credit to its members for various activities.PACS are established at village level.
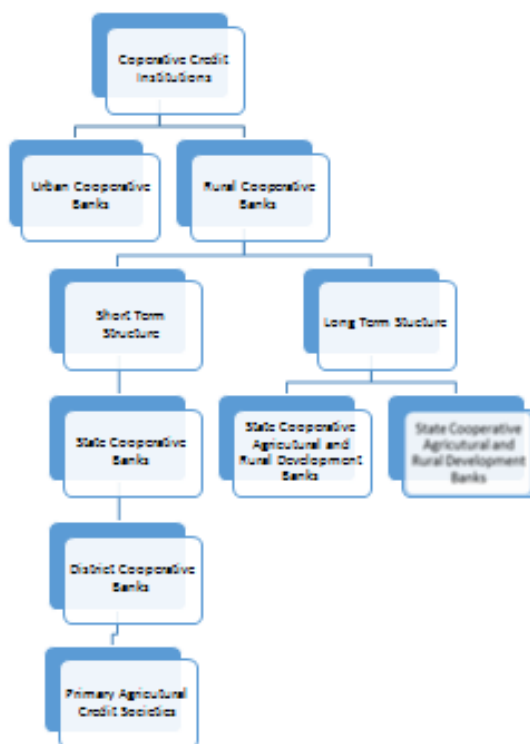
First PCS was established in the year 1904. There are changes made as per requirement time to time to give maximum benefits to its members. There are changes made in rules, bye –laws of PASC. Now PASC are functioning as multipurpose PASC.Some of the activities which can be taken up by PACS as per the model bye-laws are short-term, medium-term, and long-term credit, fertilizer, and pesticide distribution, seed distribution, fisheries/dairy/poultry activities, farm machineries/implements, custom hiring centers, floriculture, beekeeping, fish/shrimp farming, chicken, sheep, goat, pig farming, silk production, milk production, procurement of food grains, collection, grading, cleaning activities, activities related to packaging, branding, and marketing of agricultural products, agriculture product processing, storage facility (warehouse and cold storage), community center, hospital, education, fair price shops, LPG/ petrol/ diesel dealership, Bank Mitra/ Business Correspondence, insurance facility, common service center/ data center, locker facility, etc.

OBJECTIVES OF THE STUDY

1. To Observe and study performance of Primary Agricultural Credit Societies as per number of societies.

2. To Observe and study performance of Primary Agricultural Credit Societies as per total membership.

3. To Observe and study perfomance of Primary Agricultural Credit Societies as per number of borrowers.

4. To Observe and study performance of Primary Agricultural Credit Societies as per number of total deposits.

5. To Observe and study performance of Primary Agricultural Credit Societies as per number of total loans issued.

RESEARCH METHODOLOGY

The study is based on secondary data available from reliable sources.

LITERATURE REVIEW

Sujith T S, Dr. M. Sumathy[1] in their paper "Customer Or Member Satisfaction Of Primary Agricultural Credit Societies in Kerala" observed that there is a need of innovative services to be provided through PACS. They sould work out special market strategies to retain the customers or members to survive in the competitive market

Shinde HR, JP Yadav, AN Ratanparkhe, MS Jadhav, US Bonar, BJ Deshmukh and RB Hile in their paper[2] "Performance of primary agricultural credit societies (PACS) in Kolhapur district " studied that the number of PACS and membership of PACS has increased not significantaly but the loan advanced by them increased tremendously in Maharashtra during last 50 years.

Chaithra B.N[3] has observed that a number of Primary Agricultural Credit Societies face challenges like lack of necessary funds, change in economic condition, issue of insufficient amount of loans, overdue and so on which adversely affect the agriculture development programs. Therefore, these societies need to be strong and efficient to take necessary course of action to face challenges in competitive environment to serve the rural people in a better way.

Abhishek Shankar, Dr. Vandana Panwar[4] has studied that the primary agricultural credit societies are facing some serious problems such as lack of active participation by members, lack of professional is m,lackofcorporategovernance, politicisation, bureaucratization, ageing and unenthusiastic personnel, and so on.

Vanlalmuana, Dr. Laldinliana[5] have observed in their paper that there is need to increase number of members of Primary Agricultural Credit Societies to reach towards maximum members and provide services to the rural people.

Data Analysis and Interpretation

Performance of Primary Agricultural Credit Societies (Number of Societies)

(in Numbers)

Cooperative Years	Number of Societies
2012-13	90958
2013-14	93042
2014-15	92789
2015-16	93367
2016-17	95595
2017-18	95238
2018-19	95995

[1] Sijith T S, Dr. M. Sumathy (2019) – Customer or member satisfaction of Primary Agricultural Credit Societies in Kerala – International Journal of Scietific and Techonology Research – Dec. 2019, Vol. 8, Issue 12

[2] Shinde HR, JP Yadav, AN Ratanparkhe, MS Jadhav, US Bonar, BJ Deshmukh and RB Hile (2020) - Performance of primary agricultural credit societies (PACS) in Kolhapur district - International Journal of Chemical Studies 2020; SP-8(4): 247-253

[3] Chaithra B.N (2022) - Primary Agricultural Credit Societies and Agricultural Development in India - Satraachee, Issue 24, Vol. 36, No. 2, July-Sept., 2022

[4] Abhishek Shankar. Dr. Vandana Panwar (2022) - Primary Agriculture Credit Societies' Economic Impact on GrossState Domestic Product for Long-Term Agricultural Development – MET Management Review – Vol.9, Issue 2, July 2022

[5] Vanlalmuana, Dr. Laldinliana (2020) - Structure and Financial Performance of Primary Agricultural Credit Cooperative Societies in Mizoram- International Research Journal on Advanced Science Hub (IRJASH)- Vol. 02, Issue 08 ,August 2020

2019-20	95509
2020-21	102559
2021-22	104266

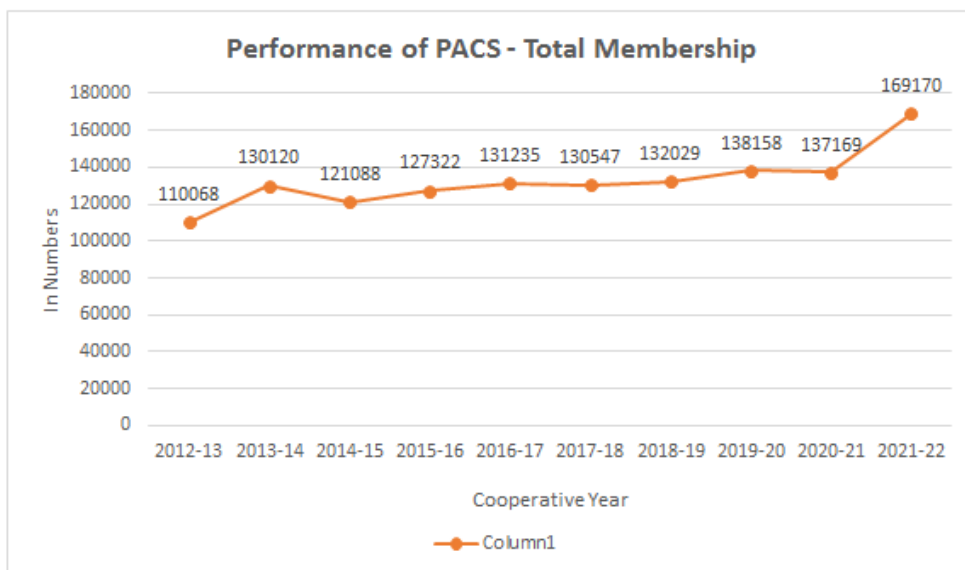(*Source:* NAFSCOB report)
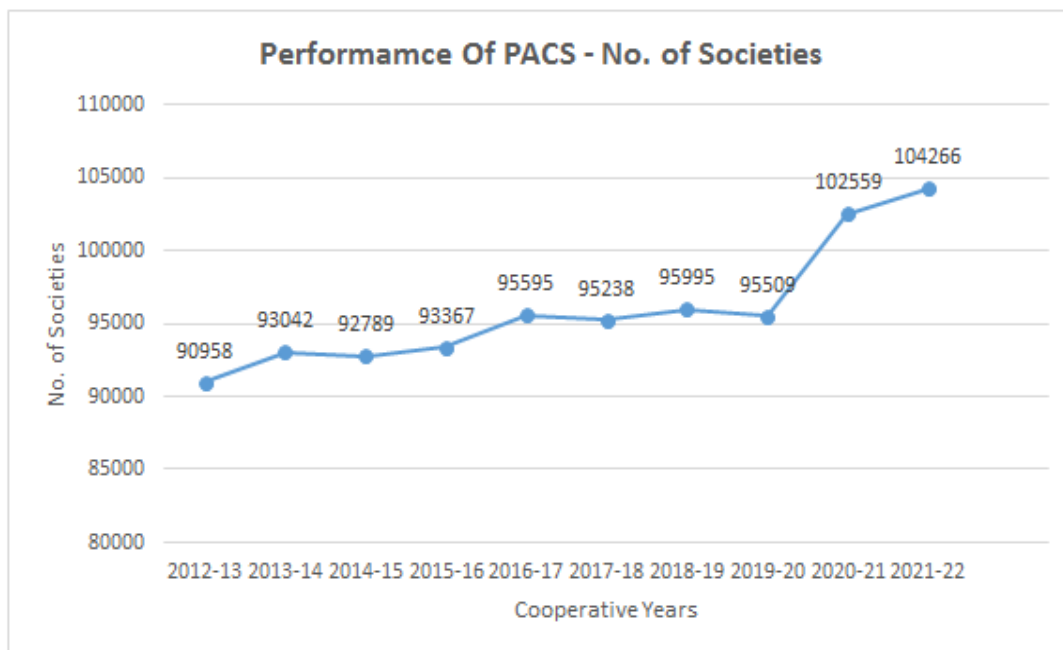
(*Source:* NAFSCOB report)

From the data available from National Federation of State Cooperative Banks Ltd. it is found that the number of Primary agricultural credit societies are increased from year 2013-13 to year 2013-14 from 90958 to 93042. After that there is decrease in the number of societies in the year 2014-15 but again increase in the year 2015-16. In the year 2015-16 there are 93367 societies which increased to 95595 in the year 2016-17. From the year 2016-17 to 2019-20 the number of societies are ranging near 95000. In the year 2020-21 there is sudden increase in the number of socities to 102559 and after that in the year 2021-22 it reached to 104226.

Performance of Primary Agricultural Credit Societies – Total Membership

(In Numbers)

Cooperative Years	Total Membership
2012-13	110068
2013-14	130120
2014-15	121088
2015-16	127322
2016-17	131235
2017-18	130547
2018-19	132029
2019-20	138158
2020-21	137169
2021-22	169170

(*Source:* NAFSCOB report)

(*Source:* NAFSCOB report)

From the above data it is seen that there is increase in number of members from the year 2012-13 to the year 2013-14 from 110068 to 130120. Till the year 2020-21 every year there is different change either increase or decrease but from the year 2020-21 to the year 2021-22 there is a substantial increase in the number of members of Primary Agricultural Credit Societies and it increased to 169170 from 138158.

Performance of Primary Agricultural Credit Societies – Number of Borrowers

(In Thousands)

Cooperative Years	Total No. of Borrowers
2012-13	42629
2013-14	48081
2014-15	49858
2015-16	46214
2016-17	52017
2017-18	50690
2018-19	51058
2019-20	52554
2020-21	53653
2021-22	48348

(*Source:* NAFSCOB report)
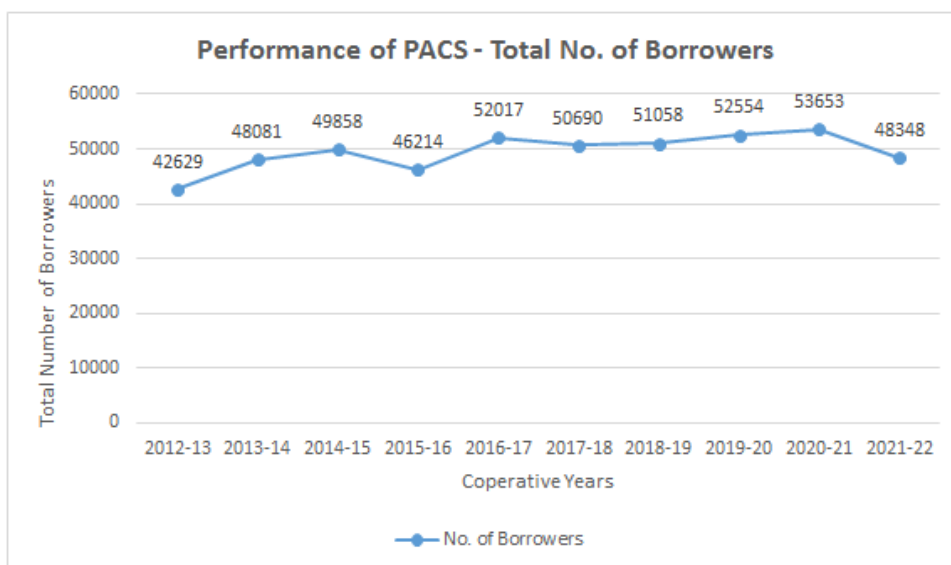
(*Source:* NAFSCOB report)

From the above data it is found that total number of borrowers vary every year. In the year 2012-13 total number of borrowers are 42629000. It increased to 48081000 in the year 2013-14. In the year 2014-15 again there is increase in total number of borrowers. It reached to 49858000. But in the year 2015-16 total number of borrowers decreased to 46214000. In the year 2016-17 there is substantial increase in the total number of borrowers and it reached to 52017000.In the year 2017-18 there is a decrease in the total number of borrowers but after that there is increasing trend in the next consecutive years 2018-19 , 2019-20 and 2020-21. But it shows decrease in total number of borrowers in the year 2021-22 and it is 48348000.

Performance of Primary Agricultural Credit Societies – Total Deposits

(Amount in Crores)

Cooperative Years	Total Deposits
2012-13	37561
2013-14	81895
2014-15	84616
2015-16	101065
2016-17	115884
2017-18	119632
2018-19	133010
2019-20	165476
2020-21	170922
2021-22	176390

(*Source:* NAFSCOB report)
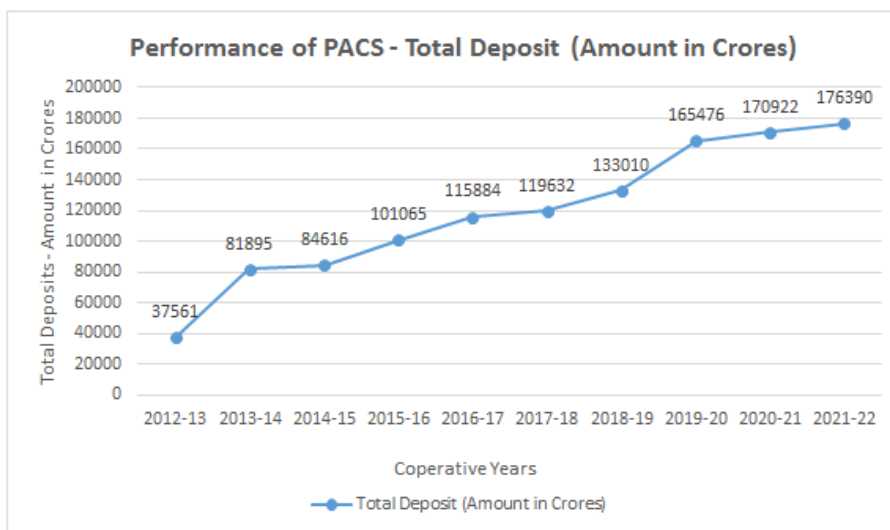
(*Source:* NAFSCOB report)

From the data available it is found that deposits are increasing every year. There is increasing trend in deposits in Primary Agricultural Credit Societies in 10 years from the year 2012-13 to 2021-22. In the year 2012-13 the deposits were 37561 crores. It increased to 176390 crores in the year 2021-22. The increase is almost 369 % as compared to the deposits in the year 2012-13
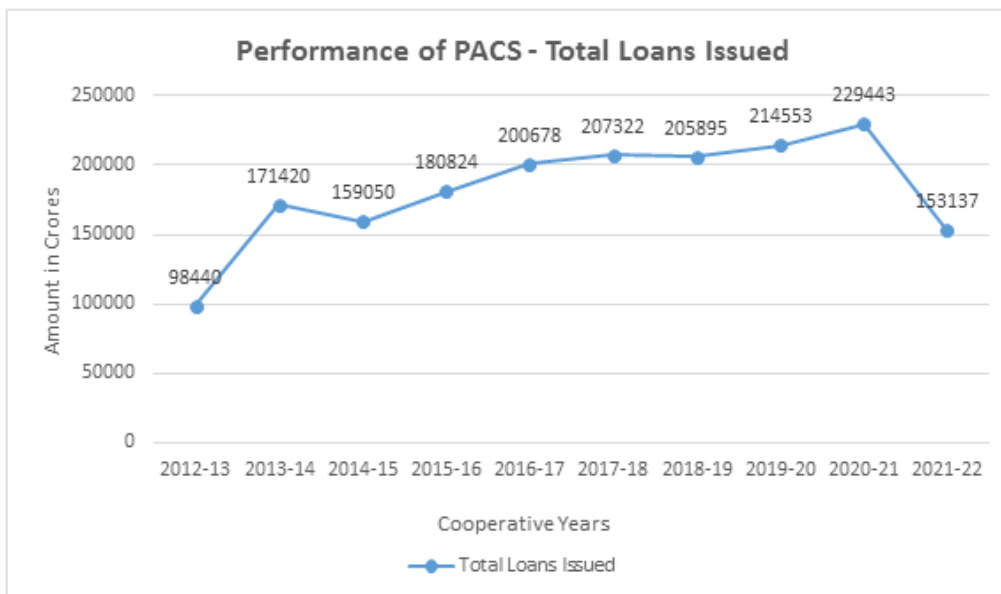
Performance of Primary Agricultural Credit Societies – Total Loans issued

(Amount in Crores)

Cooperative Years	Total Loans Issued
2012-13	984440
2013-14	171420
2014-15	159050
2015-16	180824
2016-17	200678
2017-18	207322
2018-19	205895
2019-20	214553

2020-21	229443
2021-22	153137

(*Source:* NAFSCOB report)

(*Source:* NAFSCOB report)

From the available data it is found that there is increase in total loans issued from 98440 crores to 171420 crores in the year 2012-13 and 2013-14. But in the year 2014-15 there is decrease in the total loans issued and it came down to 159050 crores. After that from the year 2015-16 to 2020-21 there is increasing trend in the total loans issued except the year 2018-19. In the year 2018-19 there is a little decrease. In the year 2020-21 total loans issued reached to 229443 crores. But in the year 2021-22 it is decreased to 153137 crores.

FINDINGS & CONCLUSIONS:

1. Number of PASCs are fluctuating but the numbers are some how not gone up in the initial period. But in the year 2020-21 and 2021-22 there is substantial increase in the number of PASCs.

2. Total members of PASCs are increased in the year from 2012-13 to 2021-22. Though there is fluctuations in some years but overall performance is good.

3. Total number of borrowers are fluctuating every year in the period 2012-13 to 2021-22.

4. Total deposits of PASCs are increased in the period of 2012-13 to 2021-22. Total deposits are showing increasing trend over the period. 369 % of increase in total deposits in the year 2021-22 compared to 2012-13.

5. Total loans issued have increased from the year 2012-13 to 2020-21 but there is decrease in total loans issued in the year 2021-22.

6. According to the data available and above discussion the performance of PASCs in the period from 2012-13 to 2021-22 is satisfactory.

REFERENCES

1. Sijith T S, Dr. M. Sumathy (2019) – Customer or member satisfaction of Primary Agricultural Credit Societies in Kerala – International Journal of Scietific and Techonology Research – Dec. 2019, Vol. 8, Issue 12

2. Shinde HR, JP Yadav, AN Ratanparkhe, MS Jadhav, US Bonar, BJ Deshmukh and RB Hile (2020) - Performance of primary agricultural credit societies (PACS) in Kolhapur district - International Journal of Chemical Studies 2020; SP-8(4): 247-253

3. Chaithra B.N (2022) - Primary Agricultural Credit Societies and Agricultural Development in India - Satraachee, Issue 24, Vol. 36, No. 2, July-Sept., 2022

4. Abhishek Shankar. Dr. Vandana Panwar (2022) - Primary Agriculture Credit Societies' Economic Impact on GrossState Domestic Product for Long-Term Agricultural Development – MET Management Review – Vol.9, Issue 2, July 2022

5. Vanlalmuana, Dr. Laldinliana (2020) - Structure and Financial Performance of Primary Agricultural Credit Cooperative Societies in Mizoram- International Research Journal on Advanced Science Hub (IRJASH)- Vol. 02, Issue 08 ,August 2020

6. www.nafscob.org

7. www.rbi.org

8. www.nabard.org

IMPACT ANALYSIS OF ARTIFICIAL INTELLIGENCE CHATBOT ON CONSUMER SATISFACTION IN FOOD DELEIVERY SERVICE

Mr. Sathe Atul[1] and Ms. Afsheen Tungekar[2]

[1]Assistant Professor, H.R. College of Commerce & Economics Churchgate, Mumbai - 400020

ABSTRACT

In this age of digital media, use of technology for all key business functions has gained immense strategic significance. Taking it to the next level, the embedding Artificial Intelligence (AI) for enhanced consumer satisfaction has been a trend for a while and food industry has not been exception to this. This study aims at understanding usage pattern and measuring consumer satisfaction through use of SERQUAL model. It further explores the challenges and opportunities of AI Chatbot in food delivery services. The study is based on primary data collected through a structured questionnaire from 116 respondents using convenience sampling method. The inferential analysis was done using One Sample t test, Friedman's test and Chi Square test. The results of the study indicate that, tangibility and assurance play differentiating role in choosing AI Chatbot, whereas reliability has similar perception across majority of the demographic factors under the study. The responsiveness and empathy are missing dimensions of the model in using AI in business; if this issue is addressed then it can lead to disruption in business strategies.

INTRODUCTION

In the rapidly advancing digital era, online food delivery services have become an integral part of modern lifestyles, offering unprecedented convenience and diverse culinary options at the click of a button. With this surge in digital dining experiences, the incorporation of Artificial Intelligence (AI) chatbots has emerged as a transformative force, reshaping how consumers engage with these platforms. As the culinary landscape evolves, the intricate relationship between consumers and AI chatbots has become a focal point for researchers and businesses. This paper embarks on a comprehensive exploration, seeking to unravel the intricate dynamics that govern consumer responsiveness towards AI chatbots in the realm of online food delivery services.

Contextualizing the Digital Dining Experience

The evolution of online food delivery services has witnessed a paradigm shift, transcending traditional culinary boundaries and introducing a digital dimension to gastronomy. Consumers today expect more than just a meal they demand seamless, personalized and efficient service. In response to this demand, AI chatbots have emerged as a key technological ally, designed to enhance user experiences, streamline processes and provide a virtual curator for navigating the expansive menus of online food platforms.

The Rise of AI Chatbots

A Culinary Comrade AI chatbots, equipped with natural language processing capabilities and machine learning algorithms, stand at the forefront of digital transformation in the food delivery industry. These intelligent interfaces are designed to imitate human like conversations, offering users a dynamic and interactive engagement that extends beyond mere transactional exchanges. From order assistance to query resolution, AI chatbots play a multifaceted role in creating a personalized and efficient dining journey for consumers.

Unraveling Consumer Responsiveness

The success of AI chatbots in online food delivery services hinges on the delicate interplay of consumer responsiveness an amalgamation of attitudes, preferences, and expectations. To comprehend this relationship, it is essential to unfold the factors that shape user perceptions and influence their interactions with AI-driven interfaces. This research endeavors to go beyond surface level analyses, delving into the psychology of consumers to uncover the underlying motivations and reservations that define their responsiveness towards AI chatbots.

A Demographic Perspective

The integration of AI chatbots into online food delivery services has revolutionized customer interactions, presenting a unique opportunity to explore how demographic factors shape consumer responsiveness in this technologically mediated environment. Demographics, including age, gender, income levels and technological familiarity, are likely to play an important role in influencing consumer attitudes towards AI chatbots. This research aims to uncover the intricate interplay between demographic variables and consumer responsiveness.

Implications for the Future of Chatbots

The integration of AI chatbots into online food delivery services has marked a significant evolution in customer service. This research seeks to assess current consumer responsiveness while also forecasting how the future of

chatbots may unfold. As AI technologies become more sophisticated, understanding the evolving expectations, concerns, and preferences of consumers becomes essential for developers and businesses looking to leverage chatbots effectively.

REVIEW OF LITERATURE

1) Stuart J Russell and Peter Norvig, London (2010) in their book named 'Artificial Intelligence a modern approach' mentions exploring everything from logic and probability to perception, reasoning, learning and action. It extends from microelectronic devices to robotic planetary explorers. The subtitle, "A Modern Approach," signifies an attempt to bring together the current knowledge into a unified framework rather than presenting each AI subfield in its historical context. This approach may make some subfields less recognizable but aims to offer a comprehensive understanding of the broad field of AI.

2) David Bruce Fogel in his research article 'Evolving Artificial Intelligence' mentions that most AI research has focused on mimicking intelligent behaviors without delving into the root causes of intelligence. The emphasis is on quick results rather than understanding the underlying factors. While current efforts result in highly performing computer programs, they excel only within limited domains. The suggestion is to shift attention to understanding the mechanisms behind intelligence. Intelligence is defined as a property allowing a system to adapt its behavior to achieve goals in various environments. The discussion identifies three forms of intelligence: phylogenetic (evolving in the lineage), ontogenetic (developing within an individual) and sociogenetic (emerging within a group). The argument asserts that these forms share equivalent processes, emphasizing the inherent evolutionary nature of all intelligent systems.

3) Marie-Claire Jenkins, Richard Churchill, Stephen Cox and Dan Smith (2007) in their article 'Analysis of user interaction with service oriented chatbot systems' mentions that chatbot systems, designed to assist users in accessing website information, function as virtual customer service representatives. To understand user expectations and interactions, two experiments were conducted. The communication between users and chatbots, as well as between users themselves, was observed using similar methods. These insights allow a focus on user-centric aspects of the system, facilitating the development of a more realistic and helpful chatbot.

4) Kuo-Lun Hsiao, Chia-Chen Chen (2022) in their article 'What drives continuance intention to use a food-ordering chatbot? An examination of trust and satisfaction' mentions the factors influencing users intention to continue using a food-ordering chatbot. The research focuses on the novel area of AI customer service chatbots, utilizing service quality, trust, and satisfaction to predict users' continuous intention. The findings reveal that anthropomorphism and service quality, particularly problem-solving, contribute to the development of trust and satisfaction. Notably, satisfaction emerges as the most influential factor directly impacting users intention to continue using the chatbot. The study offers valuable insights for service providers and chatbot developer's guiding improvements in the delivery of these services.

5) Joel B Cohen, Charles S Areni (1991) in their research article named 'Affect and consumer behavior' mentions how emotions impact, how people think and behave, even if it's not always obvious. It starts with a quick look at the history of studying emotions in psychology. Then, it delves into different areas of psychology that examine how emotions connect with thinking, motivation and actions. The study also covers relevant consumer behavior. Finally, it introduces a model highlighting the complex relationship between emotions and the cognitive system when reacting to things like advertisements.

OBJECTIVES OF THE STUDY:

1. To study the landscape implication of AI in business in India

2. To understand usage of AI Chatbot in an online food delivery services

3. To evaluate role of tangibility of AI Chatbot in responsiveness of consumers

4. To estimate impact of assurance of AI Chatbot in satisfaction of consumers

5. To forecast association between reliability of AI Chatbots and brand loyalty

6. To summarize the challenges and future scope in improving AI Chatbot in an online food delivery services

7. To suggest measures for improving efficiency of AI Chatbot in an online food delivery services

HYPOTHESES OF THE STUDY:

1) H0: Tangibility of AI Chatbots has no significant effect on choosing online food delivery service

H1: Tangibility of AI Chatbots has significant effect on choosing online food delivery service

2) H0 : Consumers do not significantly depend on assurance of AI Chatbots for ordering food online

H1: Consumers significantly depend on assurance of AI Chatbots for ordering food online

3) H0 : There is no significant association between reliability and demographic profile of consumers

H1: There is significant association between reliability and demographic profile of consumer

RESEARCH METHODOLOGY:

1) **Universe** – The research was conducted to understand the implications of usage of AI Chatbot in online food delivery services. Hence, all individuals across age, gender and educational qualifications who have used Chatbot for placing food order through online food delivery service and resides in the municipal limits of Bruhan Mumbai Corporation is universe of the study.

2) **Sample Size** – Sample size of 116 respondents is taken for the research. The primary data was collected through a structured questionnaire from the respondents.

3) **Sampling Procedure** – The researcher adapted convenience sampling technique for collection of primary data through structured questionnaire design. The respondents were explained about the questions and data were collected without any biased opinion.

LIMITATIONS OF THE STUDY:

1) The study is confined to utilization of AI Chatbot for ordering food and doesn't consider other utilities

2) Study provides overview of respondents' perception which may be affected by sample technique.

3) This is a pilot study as respondents are limited to 116.

KEY FINDINGS:

- In tangibility, the order tracking and delivery status is most effective feature, whereas food images and menu were found to be least effective for decision making.

- Majority of the respondents agreed that the transparency about information related to payment, discounts, offers and charges etc. provides sense of assurance the most, whereas accuracy on menu details matters the least for establishing assurance on the brand.

- Handling of change in food order without confusion and error through AI Chatbot was identified as most significant factor for measuring accuracy as part of service quality model. On the other hand, it was found that resolving concerns about orders was found to be least significant.

- No personal touch, delay in delivery and constant promotional messages were 3 most prominent concerns on using AI Chatbot for food ordering.

Hypothesis Testing:

Hypothesis 1: Impact of Tangibility on choosing AI Chatbot for food ordering

One-Sample Kolmogorov-Smirnov Test

Particulars	N	Test Statistics	Sig value
Food Images and Menu	116	0.242	0.000
Chatbot Design	116	0.274	0.000
Promotion offers and discounts	116	0.278	0.000
Tracking orders	116	0.292	0.000
User friendly interface	116	0.226	0.000

The test statistics and significance values indicate that the data is normal with significant correlation.

One-Sample Test

Particulars	Test Statistics	Sig value	Null Hypothesis
Food Images and Menu	20.101	0.000	Rejected
Chatbot Design	22.592	0.000	Rejected
Promotion offers and discounts	23.960	0.000	Rejected
Tracking orders	22.178	0.000	Rejected
User friendly interface	21.825	0.000	Rejected

It can be observed that, for all 5 parameters of tangibility had p value as 0.000 which is less than 0.05 which suggests that we reject null hypothesis. It highlights that there is significant impact of tangibility in making a choice of AI Chatbot for ordering food.

Hypothesis 2: Role of Assurance in choosing AI Chatbot for ordering food

Friedman's Test

Particulars	Mean Rank
Menu details and price	3.03
Status and updates on order	2.76
Diet preferences and restrictions	3.01
Delivery fees and other terms	2.89
Steps for redressal	3.32

Particulars	Value
N	116
Chi Square	14.027
Df	4
Asymp. value	0.007

The p value of the test was 0.007 which is less than 0.05 that allows us to reject null hypothesis. It means that, assurance about service quality has vital role to play in choosing the AI Chatbot.

Friedman; s Test Ranks

Hypothesis 3: Association between Reliability and demographic factors

Chi- Square (Age)

Particulars	p value	Null Hypothesis
Actual delivery time	0.004	Rejected
Processing of order change	0.002	Rejected
Handling queries	0.12	Failed to reject
Promptness in resolutions	0.000	Rejected
Consumer expectations	0.000	Rejected

Since, 4 out of 5 parameters have significance p value as less than 0.05, we fail to reject null hypothesis suggesting by and large, there is age of the person does not matter in terms of perceiving reliability while ordering food through AI Chatbot.

Chi- Square (Gender)

Particulars	p value	Null Hypothesis
Actual delivery time	0.845	Failed to reject
Processing of order change	0.535	Failed to reject
Handling queries	0.914	Failed to reject
Promptness in resolutions	0.448	Failed to reject
Consumer expectations	0.680	Failed to reject

Since, 5 out of 5 parameters have significance p value as greater than 0.05, we fail to reject null hypothesis suggesting by and large, there is gender of the person does not matter in terms of perceiving reliability while ordering food through AI Chatbot.

Chi- Square (Qualifications)

Particulars	p value	Null Hypothesis
Actual delivery time	0.349	Failed to reject
Processing of order change	0.439	Failed to reject
Handling queries	0.044	Rejected
Promptness in resolutions	0.948	Failed to reject
Consumer expectations	0.003	Rejected

Since, 3 out of 5 parameters have significance p value as greater than 0.05, we fail to reject null hypothesis suggesting by and large, there is qualification of the person does not matter in terms of perceiving reliability while ordering food through AI Chatbot.

CONCLUSION

To sum it up, our study looked at how people feel about AI chatbots in online food delivery. We found that while users appreciate the convenience and efficiency offered by these technological solutions, concerns about privacy, data security and the need for personalized interactions persist. It's clear that companies need to find a balance, using AI to make things easier while addressing user concerns. As the online food delivery world keeps changing, understanding and responding to these consumer feelings will be key for making AI chatbots more successful and trusted. The findings underscore the importance of a balanced approach that leverages AI capabilities while addressing user apprehensions, ultimately paving the way for the continued integration and improvement of AI chatbots in the online food delivery ecosystem.

SUGGESTIONS

1) Use of AI Chatbot should be made livelier to have felt of personal touch for customers for enhancing user experience.

2) It would add value if the customers get to know overview on the quality of food with nutritional value.

3) The cuisine preferences ordered earlier could be used to recommend or give suggestions for other restaurants.

4) Chatting module needs improvement for better service quality

REFERENCES

- Smith, J. (2020). Artificial intelligence and its applications. Journal of AI Research, 17(3), 210-230. https://scholar.google.com/scholar?q=related:iZQNth9wz_8J:scholar.google.com/

- Johnson, A. B. (2018). A survey of recent advances in artificial intelligence. AI Magazine, 29(4), 15-34. https://scholar.google.com/scholar?start=50&q=Articles+on+artificial+intelligence&hl=en&as_sdt=0,5#d=gs_qabs&t=1706115207377&u=%23p%3D0cYTp6xJcKAJ

- Lee, C. S. (2019). Chatbots and conversational agents: A bibliometric analysis. International Journal of Human-Computer Studies, 117, 1-13. https://scholar.google.com/scholar?start=10&q=Articles+on+chatbot&hl=en&as_sdt=0,5#d=gs_qabs&t=1706115655544&u=%23p%3DDx33egkRPYwJ

- Patel, K. & Desai, M. (2017). Adoption of chatbots in the food industry: Applications and use cases. Journal of Food Science and Technology, 45(2), 288-298. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&scioq=Articles+on+chatbot+in+food+industry&q=Articles+on+chatbot+in+food+industry&oq=#d=gs_qabs&t=1706121266534&u=%23p%3DTXgNDcuCMAo

- Smith, A.B. (2021). Understanding consumer behavior: A review of key factors and trends. Journal of Consumer Research, 43(5), 910-929. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&scioq=Articles+on+chatbot+in+food+industry&q=Articles+on+consumer+behavior+&btnG=#d=gs_qabs&t=1706122174969&u=%23p%3DCtg3fXcI-eUJ

- Russell, S. J., & Norvig, P. (2020). Artificial intelligence: A modern approach (4th ed.). Pearson.

- Dale, R. (2016). The return of the chatbots. Natural Language Processing, 13, 411-418. Springer.

- Nass, C., & Moon, Y. (2000). Machines and mindlessness: Social responses to computers. Journal of Social Issues, 56(1), 81–103. https://doi.org/10.1111/0022-4537.00153

- Solomon, M. R. (2018). Consumer behavior: Buying, having, and being (12th ed.). Pearson.

TO STUDY THE IMPACT ON PROFITS OF BANKS AFTER MERGER

Dr. Poonam Popat[1], Ms. Jaini Savla[2], Ms. Jill Shah[3], Ms. Dhruvi Shah[4] and Ms. Mauni Shah[5]
[1]Assistant Professor (Nagindas Khandwala College – Autonomous)
[2,3,4,5]Student of SYBAF (Nagindas Khandwala College-Autonomous)

ABSTRACT
Mergers and Acquisition are very common at national as well as global level in different sectors like IT sector, Pharmaceutical sector, Electronic sector and Banking sector is not an exception to it since has seen a lot of mergers in the past years. 1921 was the first year where Bank of Bengal, Bank of Bombay and Bank of Madras merged together, which is now recognised as State Bank of India. Mergers and Acquisitions are important for various reasons such as they assist in reducing the cost of operations, the risk of non-performing asset can be minimised alongside the customer base can be expanded. This paper attempts to find out the impact of recent mergers and acquisiti0ons on the profitability of the firm. The paper is based on secondary data collected through company websites and reports. The outcome shows that overall all the merged banks has shown increase in profitability in the subsequent years of merger and the profits have increased over the years.

Key words: Merger, Acquisition, Banking sector, Profits

INTRODUCTION
When two different companies of same size see each other as mutually beneficial they can both engage in merger talks to form a united company working together with both of their assets. In mergers leadership from both companies generally comes together to make decisions.

When one company is significantly larger than the other generally this becomes acquisition where the larger company offers to buy the smaller company. The larger company's culture and workflows generally take priority and the acquired company will eventually need to fall in line with their new company's workflows.

Banking sector plays an important role in the expansion and growth of economy in India.

A system or class of fiscal institutions that allows banking services to company and individual clients is defined as banking sector. Merger and acquisition proves to be rewarding for the Indian Banking sector by increasing the efficiency of the economy. It is a survival tool for weaker banks as the risk are diversified, benefits of technological advancements can be taken such as E-banking to expand the customer base and serving various different advantages.

OBJECTIVES
To study the impact of recent mergers and acquisition on profits of the banks after merger.

REVIEW OF LITERATURE
(Agrawal, 2023): Globally, Mergers and Acquisitions have helped management to develop an effective framework in banking sector. When two entities combine to form a single business entity is defined as a merger. Acquisition is where an entity buys a higher percentage of shares in another entity beyond the willingness of the acquiring entity to sell. A banking merger is where two banks amalgamate their land, labour and capital to form a single organisation. The outcome of this paper shows that Mergers and Acquisition banking industry have proved to be cost effective but there are no significant difference in the profitability ratios. In the upcoming years, administrative body and legislature must be vigilant about number of hazards caused when opting for mergers.

(Ravi.B, Recent Mergers and Acquisition in Indian Banking Sector - A Study, 2019): Mergers and Acquisitions in the Indian Banking Industry is significant in recent years. The objective of mergers and acquisition can be achieved through minimization of cost and maximisation of revenue. Achieving this objective is not possible without the interference of the central government. This abstract mentions about the Mergers and Acquisitions such as Times Bank with HDFC Bank, Bank of Madhura with ICICI Bank and such different consolidations. The paper also discusses about reverse merger, where in a large entity splits its operations into two or more small entities, for example the reverse merger of ICICI with ICICI bank. To attain stability, higher returns to shareholders, competitive advantage and other benefits, mergers and acquisition has played a vital role in this growing economic environment.

(Kumar, 2014): The performance appraisals obtained from M&A especially during the period between 2000-2013 in the banking industry as well as providing suggestions for succeeding years have been mentioned in this research paper. With the help of different financial parameters (ratios), they have compared the financial outcomes between preceding and subsequently mergers. Proficient & deficient mergers of banks should not be encouraged by the regulatory bodies owing to the fact that the minority investors will be affected by the decisions made by dominant investor.

(sahoo, 2021): In recent times, merger and acquisition in banking sector has shown significant growth domestically and globally. The purpose of merger and acquisition is to cut down the cost, gain profit, and eliminate competition. In this research paper merger and acquisition demonstrates positive result. According to this research paper, they have shown various advantages such as economies of scale, to minimise competition. The highest effect was seen in terms of return on investment ratio in banks where net profit margin and return on capital employed has shown improvement whereas return on equity and earnings per share have minimal effect on the financial performance of the bank.

(Kumari, 2022): For the economic development of country the Indian banking sector plays an important role since it is the fastest growing industry. Mergers and Acquisition has resulted in improving the financial performance of banks in both pre and post-merger situations. With the help of merger of Andhra Bank, Corporation Bank with Union Bank of India, the paper intents to show why mergers are required, the effects they portray on the economy of the country and on top level management; also by considering the merits and demerits obtained through Mergers and Acquisitions. The financial performance of ICICI Bank with Bank of Rajasthan and pre-post consolidation of Canara bank has been discussed in the paper. With the help of three top tier banks Bank of Baroda, Oriental Bank of Commerce and Punjab National Bank, effects of mergers and acquisitions is studied. The biggest merger that took place on August 30, 2019 was between Oriental Bank of Commerce, Punjab National Bank and United Bank of India.

RESEARCH METHODOLOGY
The two types of data collection methods generally used in research paper are primary and secondary data. Primary data is also known as raw data or first-hand data. Through this method the data is collected directly without relying on pre-existing information. Example of primary data collection that is used commonly are questionnaire, surveys, etc. Secondary data popularly known as second-hand data is collected through existing information that can be obtained on website, reports, books, journals, etc.

For our research, we have used secondary data with the help of journals, reports, websites.

DISCUSSION
For the purpose of study, five banks have been selected to find out the change in net profit by comparing profits before merger and after merger.

CHART 1: SBI BANK
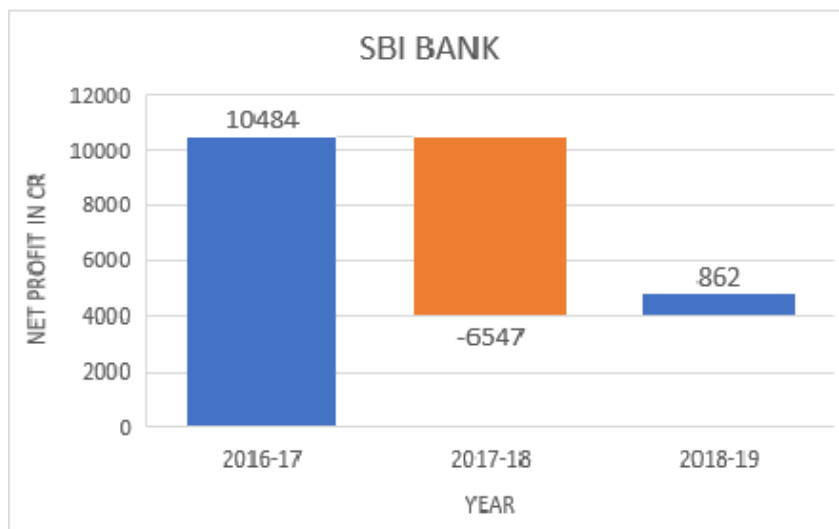
Interpretation: As shown in the given chart the profit prior to merger was ₹10484 cr but during the year in which merger took place there was a severe loss faced by the bank of ₹6547 cr. The profit of ₹862 cr earned in the subsequent year of merger which proves that the decision was in the favour of acquiring bank.

CHART 2: CANARA BANK
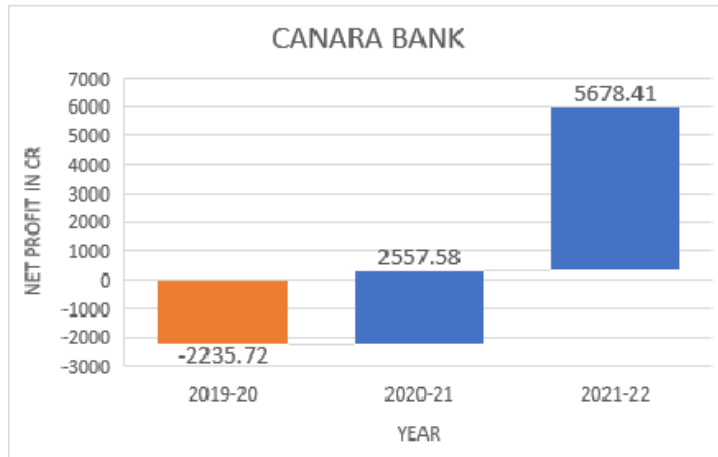
Interpretation: In the financial year 2019-20 which is prior to merger, Canara bank suffered loss of ₹2235.72 cr. In the year of merger 2020-21 the bank began to earn profit of ₹2,557.58 cr and in the following year the profit earned amounted to ₹5,678.41 cr. As a result merger turned out to be beneficial.

CHART 3: BANK OF BARODA
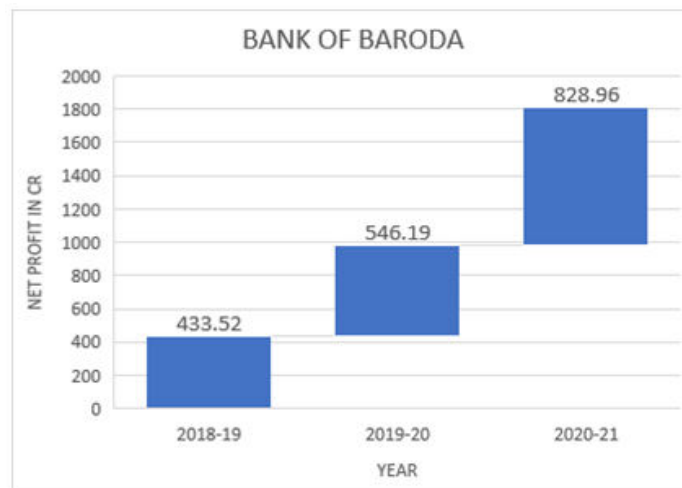
Interpretation: This chart explains that in the financial year prior to the merger Bank of Baroda showed a profit of ₹433.52 cr. In the year of merger bank exhibited surplus of ₹546.19 cr and in the next year a profit of ₹828.96 cr, showing that merger affected the financial performance of the bank in a positive way.

CHART 4: PUNJAB NATIONAL BANK
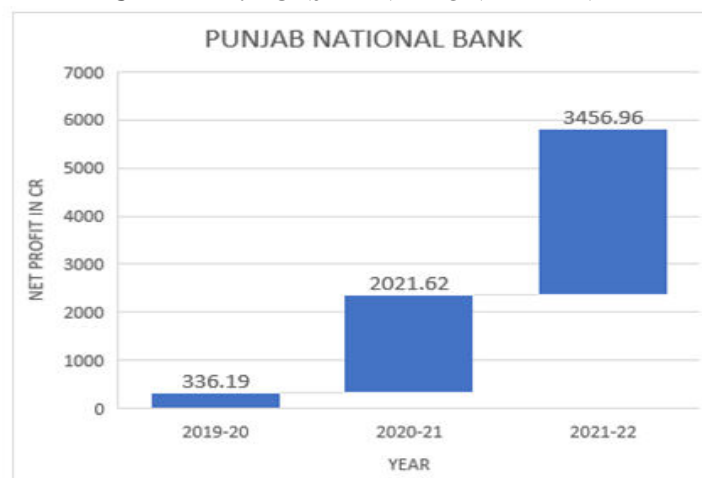
Interpretation: Before merger Punjab National Bank earned a minimal profit of ₹336.19 cr. During the year it showed a gain of ₹2,021.62 cr. After merger ₹2,021.62 cr, was earned by the bank showing high growth in the profits.

CHART 5: INDIAN BANK
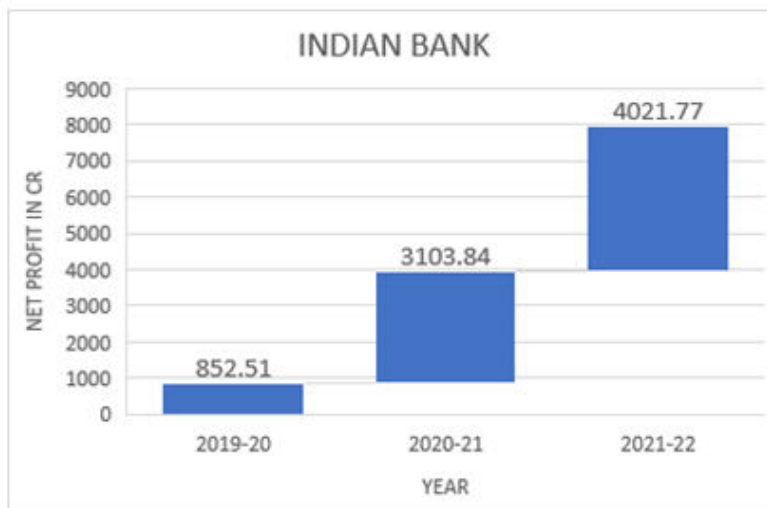
Interpretation: The pre-merger profit of Indian Bank was ₹852.51 cr. In the course of merger ₹3,103.84 cr of profit was obtained which conveys an upswing in the returns. Post merger, takings of the bank was ₹4,021.77 cr.

Application of comparative study analysis on the before and after merger profits of the selected banks

COMPARATIVE TABLE ANALYSIS OF PROFIT				
Acquiring bank	Year of merger Amt in ₹ (cr)	Subsequent year of merger Amt in ₹ (cr)	Absolute change Amt in ₹ (cr)	Percentage change
SBI Bank	-6547	862	7409	-113.17%
Bank of Baroda	546.19	828.96	282.77	51.77%
Canara Bank	2,557.58	5,678.41	3120.83	122.02%
Punjab National Bank	2,021.62	3,456.96	1,435.34	71.00%
Indian Bank	3,103.84	4,021.77	917.93	29.57%

CONCLUSION

Mergers and Acquisitions happen because of different reasons. Some companies merge to become big and some companies merge to avoid bankruptcy. The selected banks for research that are SBI Bank, Bank of Baroda, Canara bank, Punjab National Bank and Indian bank show that the major intention of merger was to increase the assets base and enhance the profitability.

But some banks do suffer a loss in the initial period of the merger due to the huge cost which they pay as Purchase Consideration to the merged company. Out of the five banks considered for study only one bank that is SBI bank, has shown negative profitability after merger and the remaining four banks that are Bank of Baroda, Canara bank, Punjab National Bank and Indian bank have shown positive profitability. Gradually over the years the companies become profitable.

BIBLIOGRAPHY

- Agrawal, A. (2023, April 4). Mergers And Acquisitions In Indian Banking Sector. INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS, 11. Retrieved February 13, 2024, from https://www.researchgate.net/publication/369949577_Mergers_And_Acquisitions_In_Indian_Banking_Sect or

- Kumar, D. M. (2014, October - December). MERGERS AND ACQUISITIONS PROSPECTS: INDIAN BANKS STUDY. International Journal of Recent Research in Commerce Economics and Management (IJRRCEM), 8. Retrieved February 15, 2024, rom https://www.paperpublications.org/upload/book/MERGERS%20AND%20ACQUISITIONS-98.pdf

- Kumari, D. M. (2022, October). Merger and Acquisitions in Indian Banking Sector of Five Years (2018 - 2022): A review. International Journal of Science and Research (IJSR), 4. Retrieved February 19, 2024, from https://www.ijsr.net/archive/v11i10/SR22928132109.pdf

- Ravi.B, D. (2019). Recent Mergers and Acquisition in Indian Banking Sector - A Study. Journal of Emerging Technologies and Innovative Research (JETIR), 9. Retrieved February 15, 2024, from https://www.jetir.org/papers/JETIR1907O98.pdf

- Sahoo, S. r. (2021, February). MERGERS AND ACQUISITIONS IN INDIA: A CASE STUDY ON INDIAN BANKING SECTOR . EPRA International Journal of Environmental Economics, Commerce and Educational Management, 11. Retrieved February 19, 2024, from https://eprajournals.com/IJCM/article/4511/download

- https://www.moneycontrol.com/financials/canarabank/profit-lossVI/CB06 (date of retrieval: 23 feb 2023)

- https://www.moneycontrol.com/financials/punjabnationalbank/profit-lossVI/PNB05 (date of retrieval: 23 feb 2023)

- https://www.smartsurvey.co.uk/articles/primary-research-methods (date of retrieval: 23 feb 2023)

NAVIGATING INVESTMENT AVENUES: A COMPREHENSIVE ANALYSIS OF STOCK MARKET, PPF, GOLD BONDS, AND SIPS

Dr. Poonam Popat[1], Mr. Devanshu Vora[2], Mr. Meet Rana[3] and Ms.Kashish Shah[4]
[1]Assistant Professor (Nagindas Khandwala College – Autonomous)
[2,3,4]Student of SYBAF (Nagindas Khandwala College-Autonomous)

ABSTRACT
Every person like an individual, a company, a firm, a local authority etc, invest with different motives such as capital appreciation, healthy retirement, regular return, risk diversification, emergency fund growth and other various reasons. The paper aims to depict the various investment avenues such as equity share market, SIP (systematic investment plan), PPFs (Public Provident Fund) and sovereign gold bonds. As per our study major investors would prefer to invest in equity share market.

Keywords: Investments, Stock Market, SIP (Systematic Investment Plan), PPFs (Public Provident Fund), Sovereign Gold Bonds

INTRODUCTION

WHAT IS INVESTMENT?
The key to financial freedom and great wealth is a person's ability or skill to convert earned income into passive income and/or portfolio income. - Robert Kiyosaki

The purpose of investing is to increase monetary value over time. Any method for producing income in the future might be referred to as an investment. Buying Gold bonds, equities, SIP and PPFs are a few examples of Investments. Every investment Vehicles differ from one another in terms of risk and reward. Investment decisions are based on goals, budget, risk tolerance, and other factors.

REASONS FOR INVESTING
Investments landscape offers various choices which involves Revenue generation, Healthy retirement plan, Financial portfolio expansion ,Capital Appreciation and Risk Diversification.

MAJOR SOURCES OF INVESTMENTS
Families and friends, Newspapers and Social media continues to play a significant role in the advice that investors receives. Impact of the above sources may lead to profits or the investors may suffer a loss. Financial advice given by various financial influencer on YouTube or any other platforms may not be authentic and may affects the investor portfolio.

FACTORS CONSIDERED WHILE INVESTING
Risk, Financial Growth, Safety, Transparency and Returns are the factors which are taken into consideration while investing. Risk is inherent in any investment and understanding them is very crucial for the investors. Expected returns from the Investment is one of the purpose, why Investments are made.

INVESTMENT VEHICLES

1. Stock Market
An Equity Market is a place where people buy and sell shares of publicly traded companies. Companies can raise money by issuing Equity Shares. Investment is done for a longer duration in equity share market. Equity shareholders are termed to be as manager of the company. It is beneficial for the shareholders as they get voting rights, also increases their wealth and maintain their portfolios

2. SIP (Systematic Investment Plan)
A small amount is invested over a time rather a large amount all at once, which results in a higher return. It helps in diversifying the portfolios of the Investors as the SIP money is invested in various markets like stock, debt and mutual funds.

Financial Proficiency is not required for investing in SIPs.

3. PPF (Public Provident Fund)
This scheme is extremely popular on account of its tax free status, guaranteed returns and its long term investment horizon. A PPF account can be opened by an Indian Citizen irrespective of their age. Non resident Indians and Joint Account Holders are prohibited from opening a PPF Account. Over a financial year a minimum of 500 Rupees and maximum of 150000 Rupees deposits can be made.

4. SOVEREIGN GOLD BONDS

Sovereign Gold Bonds are government securities entitled in grams of Gold. They serve as substitutes for physical gold. The issue price is paid in the form of cash and also the bond will be redeemed in the form of cash upon maturity.

This scheme reduces the risk and cost of storage. It eliminates the making charges of the gold and also the purity of Gold cannot be doubted.

OBJECTIVE OF THE STUDY:

- To find out the most preferred investment options selected by investors.

Review of literature

(Shastri, 2016)**:** According to the research presented above, the investors invest their saving to increase their wealth. Proper financial planning is required for investment decision. Investment options with various features are available in market. As per the requirement of the investor investment are done in financial as well as nonfinancial instruments. Risk and return of investment vehicle is different for every investor. The money for the investment comes from savings, assets that have already been owned, and other sources invested in various investment avenues in the hopes of earning a return on these investments.

(R. Muneeswaran, 2019) Depending on the risk and return potential investors can explore various Investment opportunities to grow their savings. There are various factors which can influence the investments like time, need, etc. The research's aim is to assess how informational sources and demographic characteristics influences investors awareness and their attitude towards the risks associated with various investment opportunities. According to their questionnaire it is found that the risk appetite and the knowledge about the Investment opportunities differs in urban and rural sector.

(Pandey, 2021) The essential factors for the growth of economy are savings and Investments. The part of real income kept aside for future requirements by individuals is defined as savings. Government benchmark returns are considered as an important factor for comparative analysis of investment opportunities. Factors such as diversification, professional management and the potential for returns in the financial markets makes Mutual Funds the most favoured investment vehicle. Equity Funds are later bifurcated into big cap, mid cap and small cap. In conclusion the researcher suggest that return on equity funds are comparatively high than other government securities. It is essential for the investor to assess various macro-economic variables of the economy before investing in various investment vehicles. There are various investment options available for the investors to invest in and each investment option represents it's own benefits and returns. Lastly the investor should consider two major aspects which is selection of well-grounded fund and keeping a track on the returns associated with that fund.

(Priyanka Subhash Panpaliya, 2020) This research paper conducts a comprehensive examination and analysis of diverse investment opportunities accessible within the Indian financial landscape. In this research paper, we study four investments avenues which are equity's, SIP, Sovereign Gold Bond and PPF. This study serves as a valuable resource for investors, corporations, and other stakeholders, offering insights to enhance their financial prosperity and wealth accumulation. Upon scrutinizing various investment avenues in the course of this investigation, it becomes apparent that individuals engaged in investing are well-informed about the available options in the current Indian market. However, a noteworthy finding emerges as people continue to show a preference for bank deposits over other investment alternatives. Most people seem to prefer the safety of regular interest rates rather than taking the chance of earning more through riskier investments. This shows a common tendency for stability over the possibility of higher returns. Also they are capable enough to balance their risk with investing in secured investment vehicle.

RESEARCH METHODOLOGY

Research Methodology is a source of obtaining information using various techniques and procedures. Primary and Secondary data are two types of data collection methods.

Primary Data: Primary data is also known as unprocessed data, first hand data and original data. It is a source of data collected through questionnaires, surveys etc. There are two types of primary data ,the first one is qualitative data which refers to information collected through observations, inquiry, views, interviews , questionnaire, etc and the second one is Quantitative Data which refers to information collected through numerical, measurable and statistical means.

For the purpose of the study both primary as well as secondary data is used in our research and survey was carried out through questionnaire method. The data analysis is done using percentages and depicted through pie charts and graphs which was enacted to 60 respondents.

Secondary Data Collection: Secondary data is also known as processed data and pre-existing data. We have collected information from sources such as magazines, newspapers, books, journals and other researches
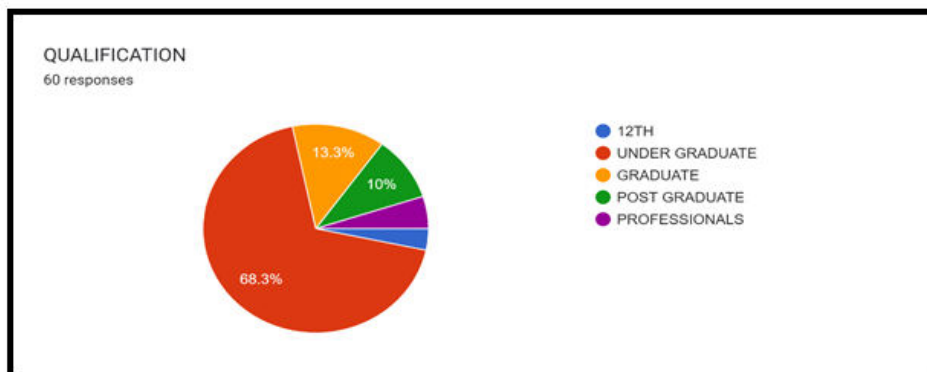
DATA ANALYSIS & INTERPRETATION:

Chart: 1 Gender of respondents:
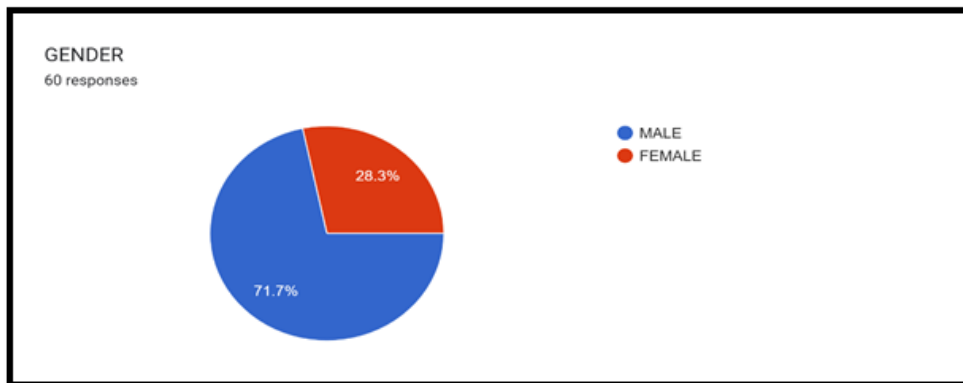
From the above pie-chart we can infer that most of the investors are Male (71.7%) and remaining 28.8% investors are Females.

Chart: 2 Qualification of the respondents:

Given the qualification breakdown, it is evident that a significant 68.3% of the investors fall into the category of students, specifically under-graduates. Graduate investors make up 23.3% of the total, while professionals and HSC pass outs represents the remaining 8.3%. This distribution highlights the predominant participation of students in the investor demographic, showcasing a notable trend in the data.

Chart: 3 Occupation of the respondents:
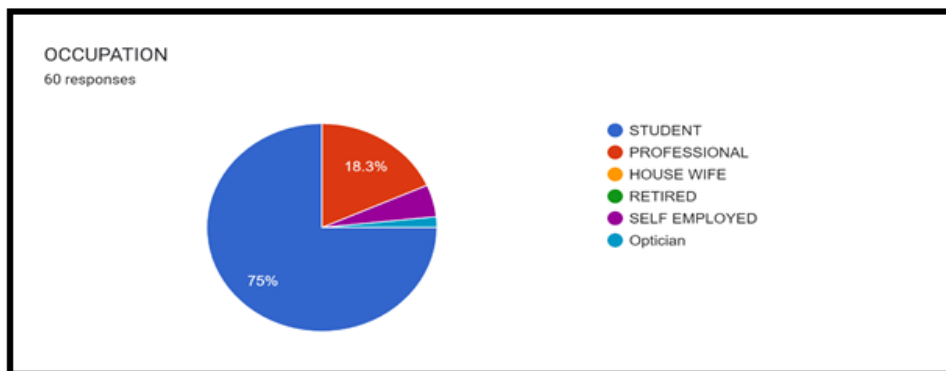
Taking into account the occupation component, it is visible that the core investors are students and it sums up to 75% of the abovementioned pie-chart. This emphasizes the predominant involvement of students in the investment landscape. The remaining 25% is distributed among various other occupations, such as

professionals, housewife, retired and self-employed. This observation indicates the remarkable influence of student investors within the depicted data.

Graph 4: Age of Respondents
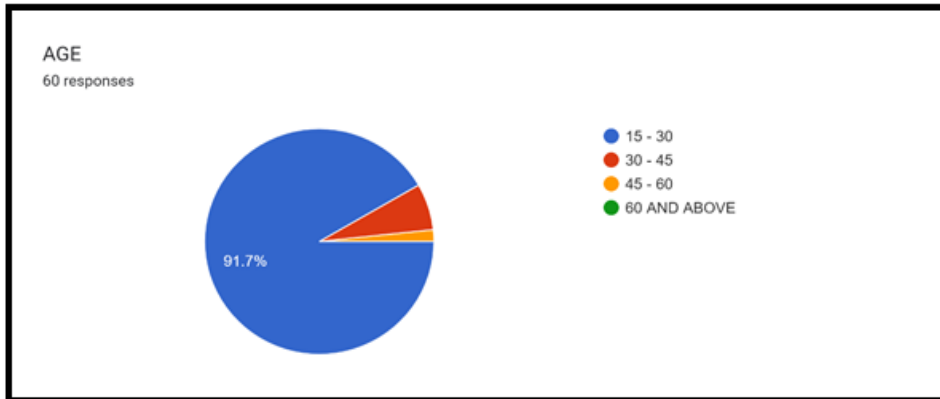
Analysing the age distribution as mentioned in the pie chart, it is apparent that the majority of investors fall within the age range of 15-30 years. This age bracket composes a significant portion of the investor demographic, highlighting the extensive involvement of individuals in this particular age group in the investment activities. This observation leads to the conclusion that a considerable segment of the investor community is concentrated within this range. This age range sums up to 91.7% of the pie-chart and the remaining 8.3% consist of individuals mentioned in other age range.

Graph: 5 Income of the respondents
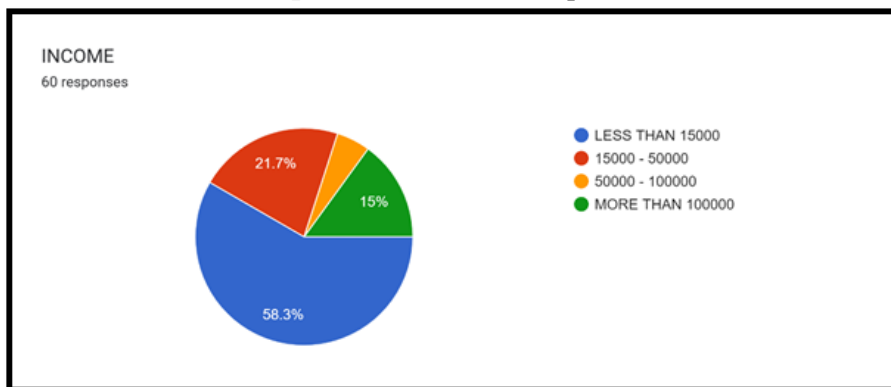
Looking at the income aspect, it is but evadible that since the majority of the investors are students and aging between 15-30, the income does not exceed Rs.15000 per month, which makes it 58.3% of the above pie-chart. 21.7% of the total investors acquires income between Rs.15000-50000 per month. 5% of the investors earns income between Rs.50000-100000 per month and the remaining 15% earns income more than Rs.100000 per month. This distribution emphasizes the diverse income levels within the investor community, reflecting the financial spectrum of participants in the depicted pie chart.

**Graph: 6** Whether people invest or not.
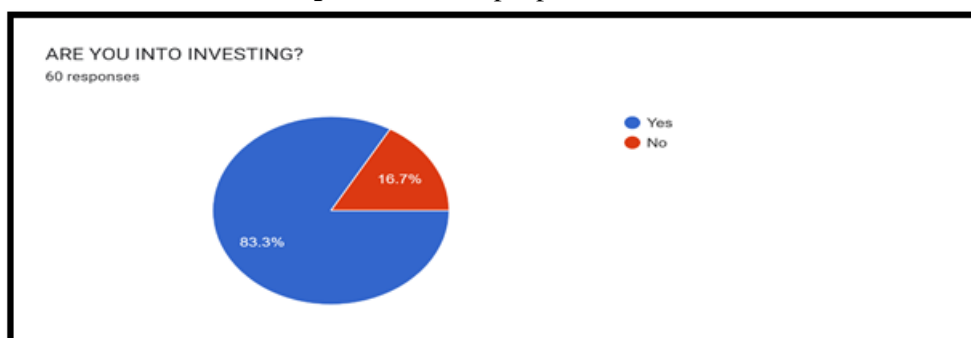
Based on the information gathered we can summarise that the majority of the folks are interested in diversifying their savings into various investment options which helps us to conclude that 83.3% prefers to invest.

**Graph: 7** Various investment avenues selected by people.
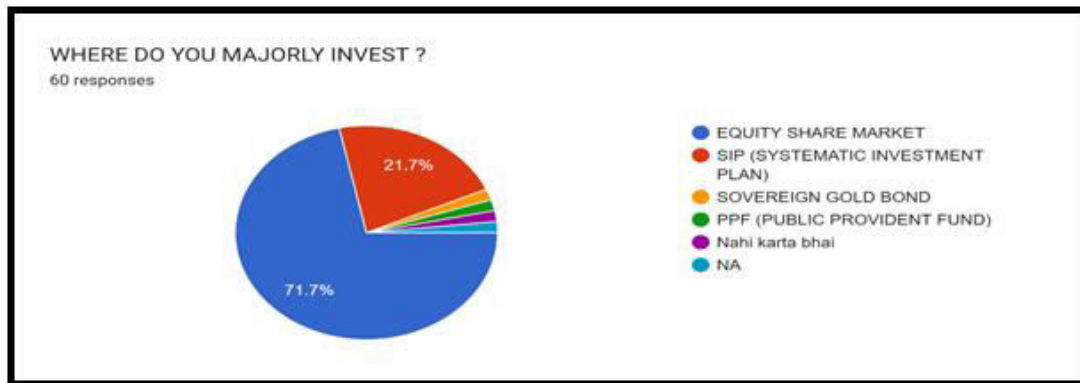
The pie-chart provides a snapshot of the investors demographic illustrating the investments made in different investment vehicles. 71.7% of the investors prefer to invest in Equity Share Market which seems to be the most preferred investment vehicle among the investors. Out of which 72.09% are male and remaining 27.90% are females. 21.7% of the investors opt to invest in SIP(Systematic Investment Plan). Among which 69.23% are male and remaining 30.77% are females. 1.7% of the investors invest in PPF(Public Provident Fund) and Sovereign Gold Bonds which makes the two investments vehicles the least preferred ones.

Graph: 8 Reason for selecting the stated investment options.
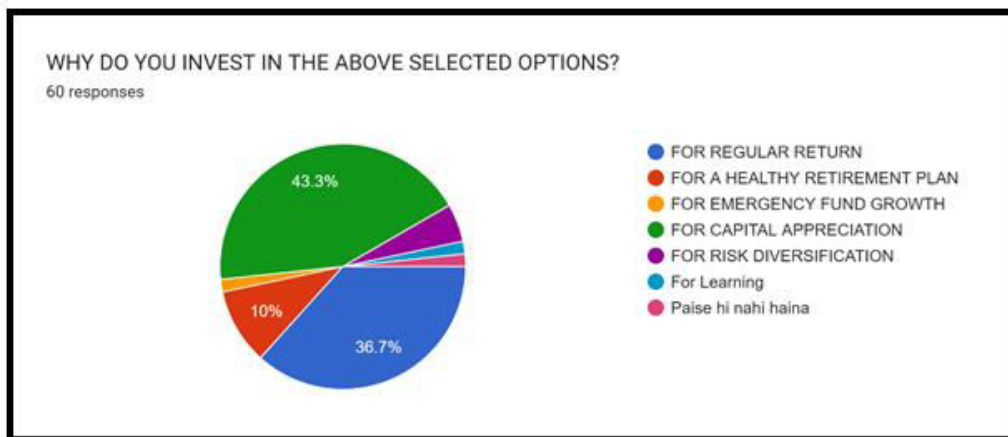
By evaluating the above pie-chart, it clearly shows that 43.3% of investors invest for capital appreciation. 36.7% of investors invest for regular return. 10% of investors invest for healthy retirement. 5% of investors invest for risk diversification and remaining 1.7% for emergency fund growth.

**Graph: 9** Source of information for investment
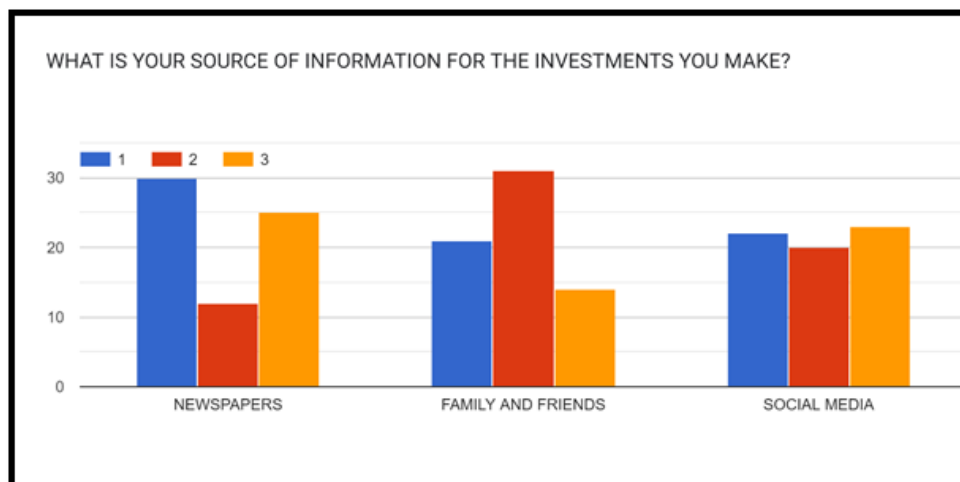
By analysing the above pie-chart, it's evident that newspapers emerges as the most preferred information source of investment from the other given sources(family, friends and social media)

**Graph: 9** Factors considered for investment
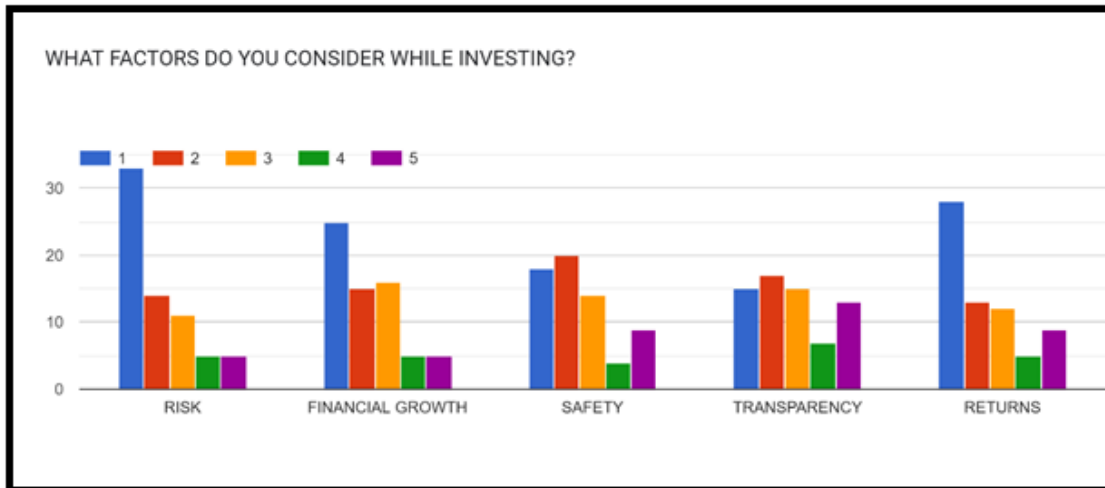
On reviewing the above pie-chart, it's presumed that investors first and foremost consider risk, second factor which is given importance is financial growth, then safety, transparency and returns are considered.

Graph: 9 Average annual return for investment
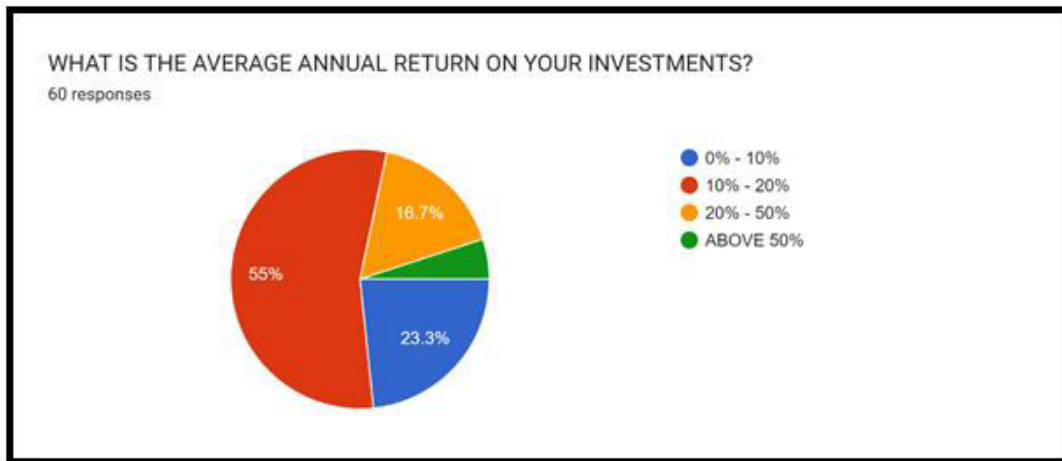
From the former pie-chart, after taking into account all the factors that affect the investment decision and after assessing all the necessary perspectives, investors acknowledge that 55% of them earns maximum annual return between 10%-20% . 23.3% says that their annual return does not exceed above 10%. 16.7% believes that they get an annual return between 20-50% and remaining 5% perceives that they get an annual return above 50%.

Graph: 10 Satisfaction level of investment
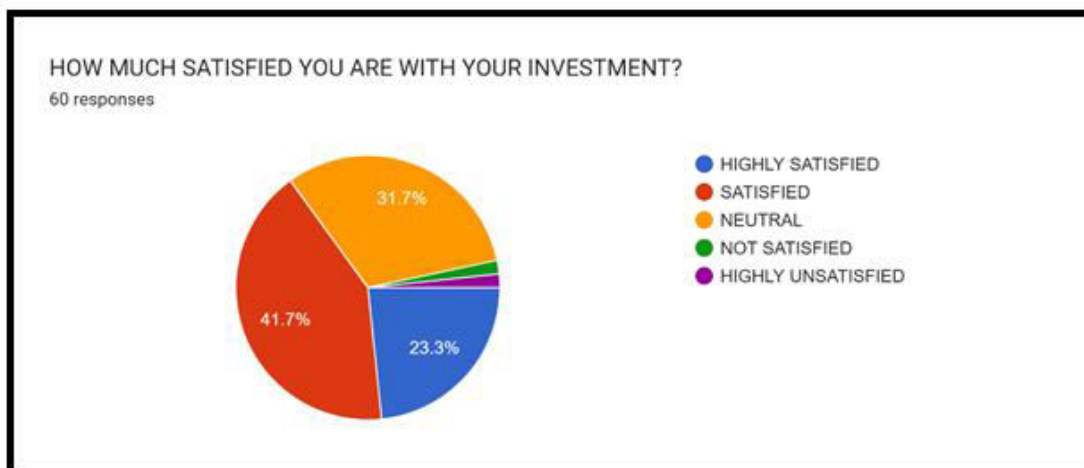
The preceding pie-chart, intimates that 65% of the total investors are satisfied with their investment. 31.7% are neither satisfied nor unsatisfied and remaining 3.4% are not satisfied with their investment.

Graph: 11 Preference for change in investment
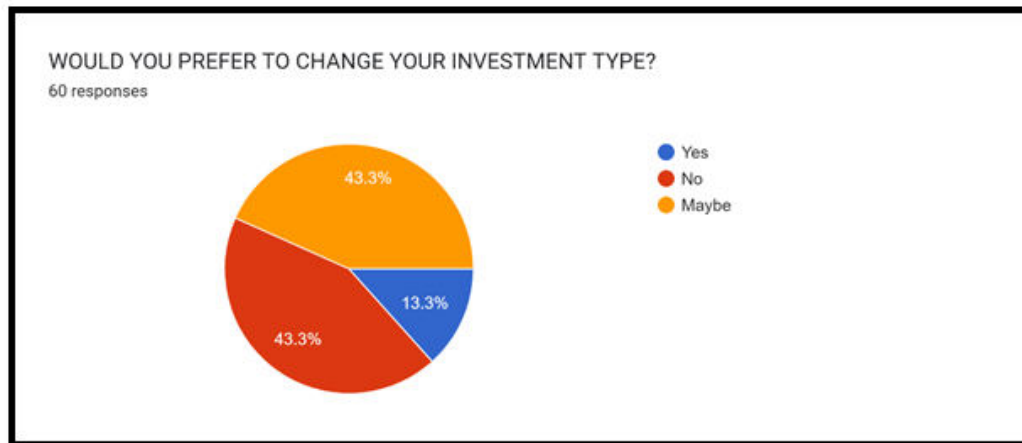
From the foregoing pie-chart, we can insinuate that 43.3% of investors does not wishes to change their investment, while on the other hand 43.3% also says that they may change their investment vehicle if they find a favourable reason and the remaining 13.3% says that they would change their investment vehicle for diversification of portfolio, risk management and for better & regular returns.

CONCLUSION

As per our research majority of the investors who are ready to take high risk are investing in equity shares. As it provides high returns in short span of time with high risk. SIP is the next preferred option after equity market because it requires less financial proficiency and regular returns are expected. People who desire to keep their investments secure and safe, prefer risk free investments in PPF and sovereign Gold Bond as they are backed by central government and they are highly liquid and safe.

BIBLIOGRAPHY

- Pandey, A. (2021). An Analysis of Investment Avenues in India: A Comparative Analysis of Government Benchmark Returns and Equity Mutual Funds in India. *International Journal of Social Sciences Arts & Humanities*, 11. Retrieved Feb 22, 2024, from http://www.crdeepjournal.org/wp-content/uploads/2021/05/Vol-8-2-4-IJSSAH.pdf

- Priyanka Subhash Panpaliya, S. S. (2020). Analysis of Various Investment Avenues in India. *International Journal of Innovative Science and Research Technology* , 7. Retrieved Feb 22, 2024, from https://ijisrt.com/assets/upload/files/IJISRT20JUN1110_(1).pdf

- R. Muneeswaran, M. B. (2019). Investors' Behaviour on Investment Avenues. *International Journal of Engineering and Advanced Technology (IJEAT)*, 4. Retrieved Feb 22, 2024, from https://www.researchgate.net/publication/338356750_Investors%27_Behaviour_on_Investment_Avenues

- Shastri, D. P. (2016). A STUDY OF VARIOUS INVESTMENT AVENUES IN INDIA. *International Journal of Advanced Multidisciplinary Research (IJAMR)*, 4. Retrieved Feb 22, 2024, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3201797

- https://byjus.com/maths/data-collection-methods/

- https://paperpal.com/blog/academic-writing-guides/what-is-research-methodology#:~:text=A%20research%20methodology%20describes%20the%20techniques%20and%20procedures,achieve%20their%20objectives%20using%20the%20selected%20research%20instruments.

- https://www.rbi.org.in/commonperson/English/scripts/FAQs.aspx?Id=1658

- https://papers.ssrn.com/sol3/Data_Integrity_Notice.cfm?abid=3201797

- https://www.researchgate.net/publication/338356750_Investors%27_Behaviour_on_Investment_Avenues

- https://groww.in/p/savings-schemes/public-provident-fund-ppf

- https://groww.in/p/sip-systematic-investment-plan

UNDERSTANDING HUMAN RESOURCE ACCOUNTING AND ITS SCOPE IN INDIA: CASE STUDY OF SELECTED INDIAN COMPANIES

Dr. Poonam Popat[1], Ms. Riddhi Jain[2] and Ms. Palak Gandhi[3]
[1]Assistant Professor (Nagindas Khandwala College – Autonomous)
[2,3]Student of SYBAF (Nagindas Khandwala College-Autonomous)

ABSTRACT

The central idea of human resource accounting (HRA) is that an organization's human resources are valuable assets and ought to be managed as such. In the same way that tangible assets like buildings, land, and machinery are valued and documented in the books of account, so too should human resources be computed, documented, and made public in the financial statements. Human resources have been measured using a variety of approaches. This paper elaborately discusses the concept of human resource accounting explaining its origins, its awareness among the general public, various methods prescribed, and case studies of Indian companies implementing human resource accounting.

Keywords: human resource accounting, human resource accounting of Indian companies, methods for human resource accounting.

INTRODUCTION

Human resource accounting is a technique used to determine the worth and expense of internal human resources within a business. It involves identifying and measuring data about human resources and communicating this information to interested parties. The primary objective of human resource accounting is to identify and disclose investments in an organization's human resources that have not been considered when interpreting accounting procedures. This informational framework directs management on how the organization's human resources have changed over time and the value of people to the business.

The adoption of human resource accounting can lead to various drawbacks, such as resistance to change, integration issues, data security, customization requirements, training needs, cost considerations, employee engagement, etc. The origins of human resource accounting can be traced back to William C. Jordan in the 1920s, and American psychologist and organizational theorist Rensis Likert in the late 1950s and early 1960s.

Likert's theories helped formalize human resource accounting as a management concept, allowing businesses to better understand their actual value and make more informed decisions about hiring, training, and employee development. There are various methods to value human resource accounting, including the cost approach method and the value approach method.

In India, HRA is still a growing concept, with public sector companies like ONGC Ltd, NTPC Ltd, BHEL Ltd, HPC Ltd, and BPC Ltd, and private sector companies like Reliance Industries Ltd, Tata Consultancy Ltd, Infosys Technologies Ltd, Ranbaxy Ltd, and Hindustan Unilever Ltd valuing their HR practices.

REVIEW OF LITERATURE

(Prasanna, 2021) The paper outlines Human Resource Accounting (HRA) and its significance in organizational management, aiming to evaluate the value of human assets for informed decision-making and productivity enhancement. The research delves into the methodologies, constraints, and significance of human resource accounting. The methods were categorized into three categories: non-financial value-based approach, financial value-based approach, and cost-based approach. Additionally, it offers a list of Indian businesses whose annual reports value their human resources as assets.

(S, 2022) Examines Human Resource Accounting (HRA) is gaining momentum in India as companies increasingly value employees as crucial assets. Prioritizing HRA practices amid growing business formations and hiring can enhance transparency in cost allocation and predict future benefits. Despite its economic complexity, HRA offers quantitative data to aid managerial decisions, especially in recruitment and management functions. Ongoing efforts to promote HRA underscore its effectiveness, urging broader adoption for enhanced managerial functions.

(Kashyap, 2021) The research highlights the lack of regulatory requirements for Human Resource Accounting (HRA) in India. Rolta India Ltd. and Infosys lead in HR disclosure, yet most companies show only average levels of disclosure. HR data is consistently provided as supplementary information in annual reports. HRA is essential for evaluating company worth, and strengthening employer reputation in the knowledge-driven economy. However, there's significant scope for improving HRA practices among Indian businesses.

(B.Mallikarjuna, 2016)A research study on human resource accounting in Indian organizations, both public and private, the applicability of HRA procedures in business, and the challenges and worries that Indian enterprises encounter was conducted under the title "Human Resource Practices in India." Additionally, the data reveals that HRA is still not a widely accepted concept in India and that the ICAI has not yet developed any HRA guidelines for the same. However, as more businesses use HRA, the situation appears to be improving.

(Mr. Mukesh Kumar, 2023)The Study explains Human Resource Accounting and its development in six stages. It defines the reason for development in the company internal, external, and both. Despite challenges such as subjective valuation and resistance from employees, HRA has become crucial in modern organizations. Key models for HRA valuation include the Lev & Schwartz model and present value methods, adopted by companies like Infosys and Hindustan Petroleum. The potential benefits of HRA, including improved management decisions and strategic insights, highlight its importance in contemporary business settings.

OBJECTIVE
1. To understand Human Resource Accounting

2. To Study the Scope of Human resources Accounting in India

RESEARCH METHODOLOGY
Primary and secondary research methods are used in this study. Primary data collection involves directly obtaining information from the source using techniques like surveys, interviews, and experiments. Secondary data, on the other hand, is gathered, processed, and published by someone else. For this research, both primary and secondary data were used. Primary data was collected through a questionnaire, where structured questions were asked and 50 responses from graduates, post-graduates, professional and others having knowledge in accounting were gathered. Secondary data was collected from online websites, journals, and reports.

METHODS/MODELS OF HUMAN RESOURCE ACCOUNTING
(1) **HISTORICAL COST:** The historical cost method is used to estimate the true cost of human resources, including learning and acquisition expenses. However, it doesn't accurately reflect the full value of human resources, as experienced workers may not require much training.

(2) **REPLACEMENT COST:** Replacement cost is a method that considers the national cost of acquiring a new employee to replace an existing one, including acquisition and learning costs. It is generally higher than historical cost and is a better indicator of the value of human assets. However, it may present operational problems as finding the true replacement may be challenging.

(3) **STANDARD COST:** Businesses often use the standard cost method to value human resources, but this method overlooks variations among employees within the same group, which can be critical in certain situations.

(4) **PRESENT VALUE OF FUTURE EARNINGS:** The present value of future earnings method calculates the present value of an employee's estimated future earnings up to retirement age by discounting those earnings at a predefined rate. This approach is comparable to the current value of financial assets, but it ignores the contribution that human resources make to organizational success, making it inaccurate in valuing human resources.

The model may be expressed as follows:

V = the human capital value of a person y years old

I (t) = the person's annual earnings up to retirement

R = discount rate specific to the person

T= retirement age.

(5) **ACQUISITION COST METHOD:** With this approach, historical acquisition costs—such as those related to hiring, onboarding, and employee orientation—are capitalised. Over the course of the employee's employment with the company, these expenses are written off. The unamortized cost is written off against the year's profit and loss statement if the employee quits before their term is out.

(6) **EXPECTED REALIZABLE VALUE:** The methods that are being proposed are predicated on cost considerations, which could not fully capture the worth of human capital. The expected realizable value is predicated on the idea that an individual's contribution to the organization and their cost are not directly correlated.

(7) **ECONOMIC VALUE METHOD:** An acceptable interest rate is used to calculate the present value of future economic benefits, which is how the economist calculates asset value. This method has a lot of theoretical appeal.

(8) **COMPETITIVE BIDDING METHOD:** Different divisions and departments bid for the services of different officers using the competitive bidding method, commonly referred to as the opportunity cost approach. To find a return on investment, one adds to the capital used the quantifiable worth of advantages received by selecting a different path of action.

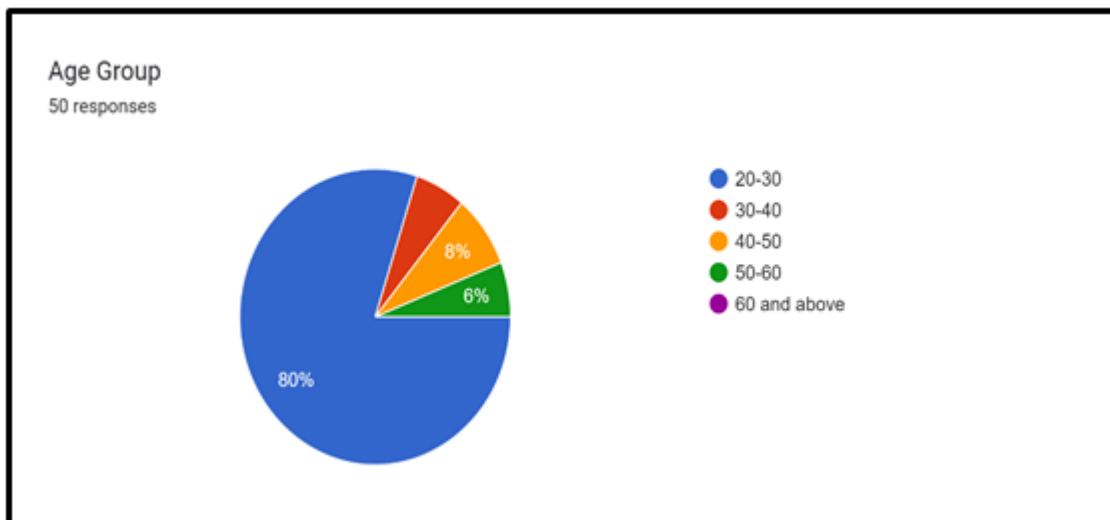**DATA ANALYSIS AND INTERPRETATION:**

❖ **PRIMARY DATA**

GRAPH 1
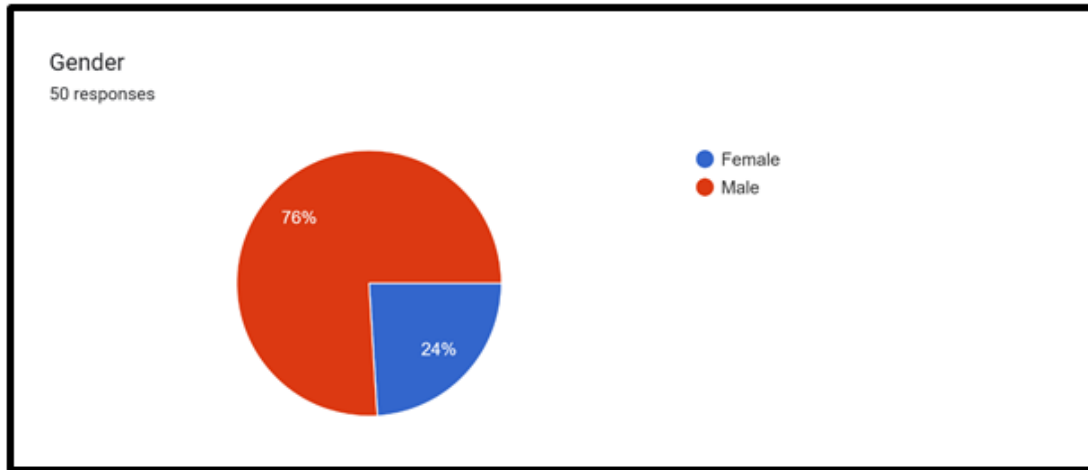
INTERPRETATION
From the above diagram, one can perceive that key respondents of this survey were male extending up to 76%, while on the other hand, female respondents stretched up to 24%.

GRAPH 2

INTERPRETATION
The above data shows the demographic of individuals interested or involved in this field. The major part of this survey is in the range of 80% of respondents belonging to the age group of 20-30 years. One can see that 8% of the respondents belong to the age group of 40-50 years. Only 6% of the respondents were belonging to the age group of 30-40 and 50-60. None of the respondents belong to the age group of 60 and above.
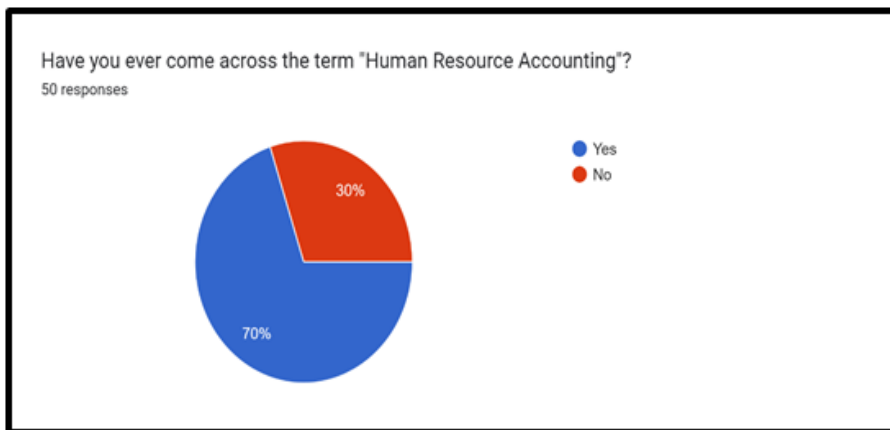
GRAPH 3
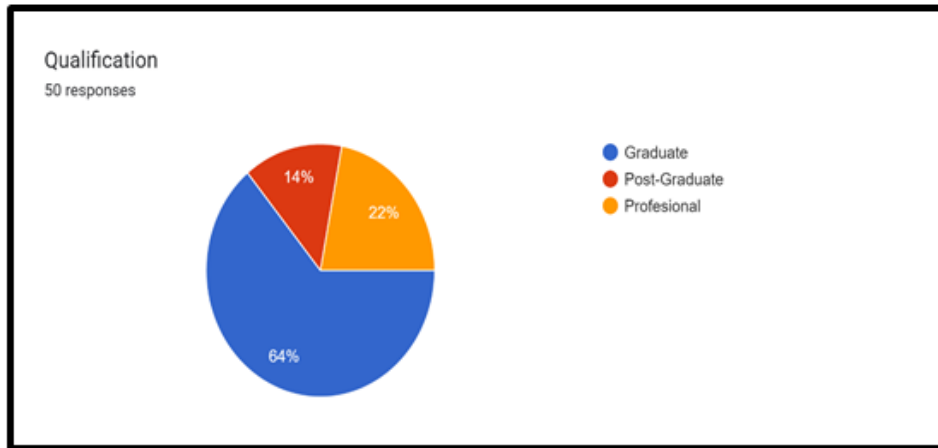
INTERPRETATION

A considerable part of the respondents was collected from students who had graduated i.e.64%. The diagram demonstrates that 22% of the respondents were Professionals (i.e. CA, CS, CFA, etc). There were only 14% of the respondents who were Post-Graduated.
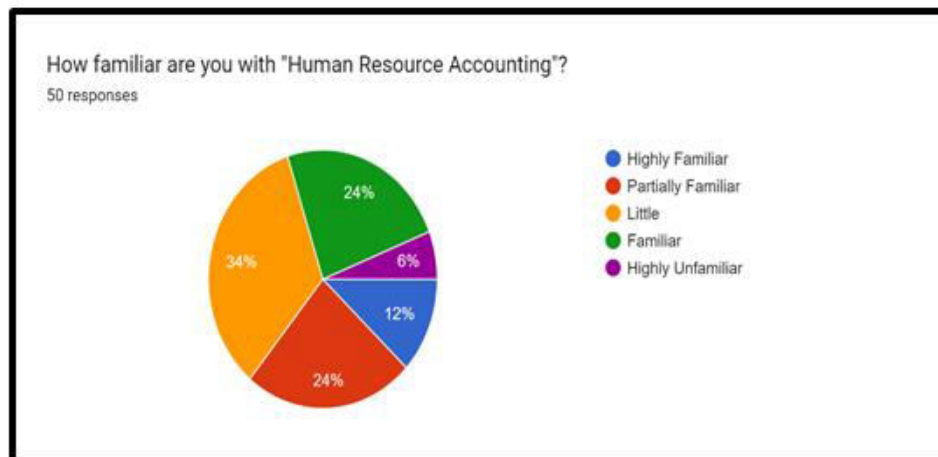
GRAPH 4

INTERPRETATION

The above data shows that 70% of the respondents had come across the term Human resource accounting while 30% of the respondents hadn't come across this term.
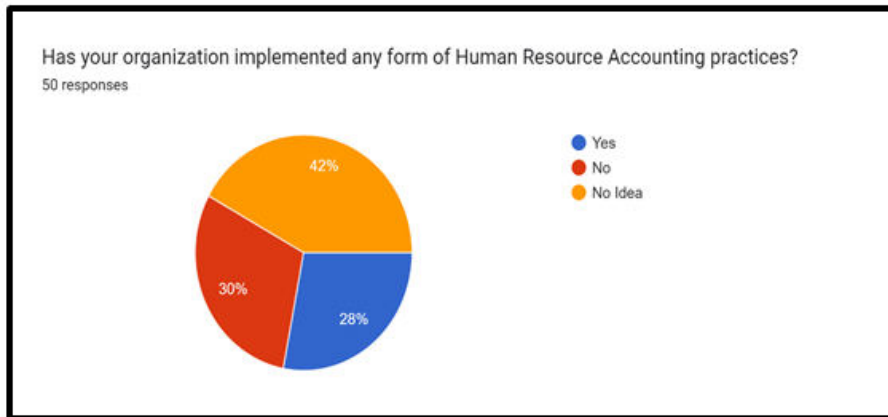
GRAPH 5

INTERPRETATION

The above data interpret the familiarity levels with Human Resource Accounting.34% of the respondents are Little Familiar. 24% of the respondents are Partially familiar and just familiar, while 12% of the respondents are Highly Familiar and 6% of the respondents are Highly unfamiliar with Human Resource Accounting.

GRAPH 6

INTERPRETATION

The above data suggest that there is interest or awareness among some organizations about the importance of Human Resource Accounting practices, as evidenced by the respondents whose organizations have implemented them.28% of the respondent's organizations have implemented this practice. 30% of the respondent's organizations haven't been practicing, while 42% of the respondents are not aware if their organization has implemented this practice or not.

GRAPH 7
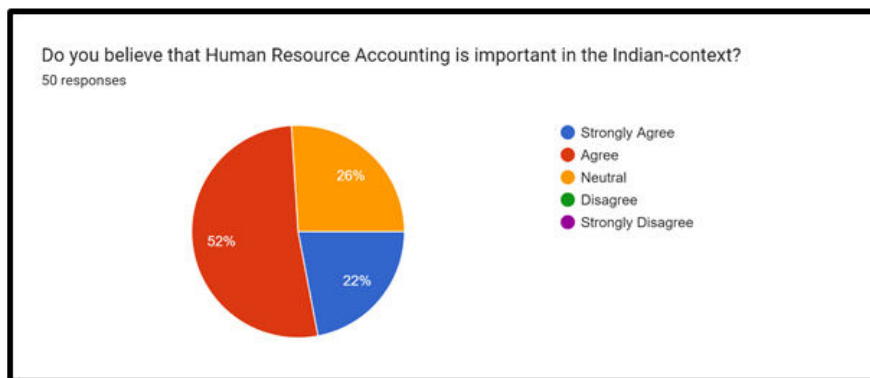
INTERPRETATION

In the above data, it appeared that the majority of respondents believe that Human Resource Accounting is important in the Indian context. 22% of the respondents strongly agreed that it is important, while 52% of the respondents just Agreed and 26% felt neutral.

GRAPH 8

INTERPRETATION

In the above data, it seems that majority of respondents believe that Human Resource Accounting can improve decision-making and performance evaluation in Indian companies. 18% of the respondents strongly agreed, 56% of the respondents just agreed and 26% felt neutral.

GRAPH 9

INTERPRETATION

The above data shows the challenges faced by Human Resource Accounting. 46% of the respondents identified this challenge as clear guidelines are absent. 40% of the respondents find this difficult to measure employee value. 34% of the respondents felt there is no legal recognition as assets. 30% of the respondents feel there is a lack of HR Accounting guidelines, while 28% of the respondents identified that there is no universal valuation method.

GRAPH 10
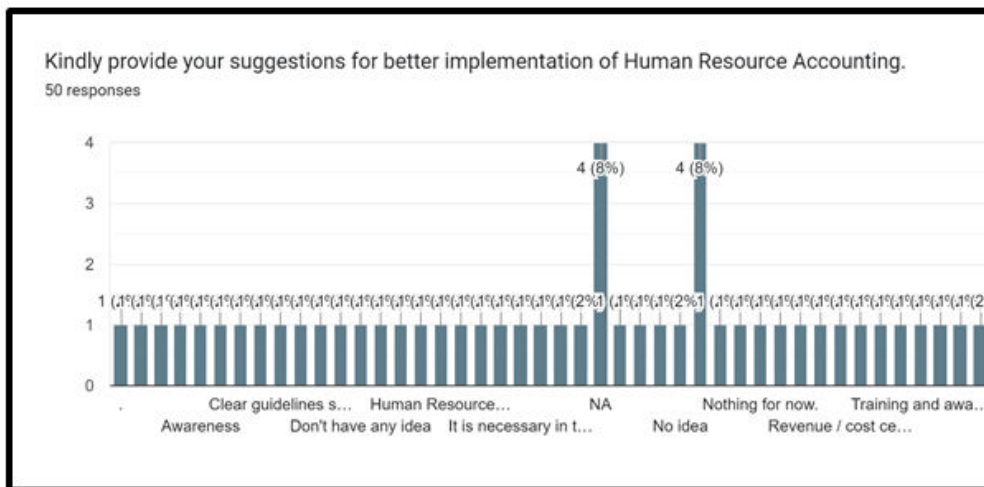
INTERPRETATION

The above data shows the suggestions for better implementation. The respondents have provided their suggestions such as:-

1. Clear guidelines should be provided by a law

2. Policies should be smooth and implemented smoothly with proper clarification.

3. Implementing effective recruitment, selection, training, development, and compensation programs. Maintaining an accurate and up-to-date HR system. Ensuring that all employees are treated equally and fairly. Maintaining an accurate and up-to-date payroll system.

4. Need more awareness campaign.

5. A standard valuation method is needed for proper calculations.

CASE STUDY OF SELECTED INDIAN COMPANIES

The 1956 Act, which forbids the inclusion of human resource information in financial accounts, has hindered the successful implementation of HRA in several companies, despite its benefits in India. Nonetheless, in

several public and private Indian businesses place high importance on their human resources and include this information in their yearly reports.

HRA Practices of selected Indian companies

(1) Infosys Technologies Ltd
In the 1990s, knowledge-intensive corporation Infosys started to view human resource costs as investments rather than expenses. On its balance statement, the corporation listed human resources as an asset, which included all benefits, both direct and indirect, received both domestically and overseas. Infosys was able to compare employee performance across departments and processes, minimize redundant labour, and make managerial choices thanks to the early use of Human Resource Accounting (HRA). Data on the number of employees, age distribution, net worth, value-added, and return on human resource value are all provided by the firm.

Over the last eight years, Infosys has had a notable expansion in personnel, with a 308.15% increase in software professionals and support people. Additionally, from Rs. 3,539 crore in 2004–05 to Rs. 16,237 crore in 2011–12, the overall cost of labour has grown. On the other hand, the cost per employee has dropped by around 22%, suggesting a just compensation schedule. With the value of software experts and support personnel rising significantly, the value of human resources as a whole has also grown. The human resource ratios of the organization have exhibited both positive and negative values. Specifically, the percentage of employee cost to human resource value dropped between 2011–2012 and 2007–2008.

(2) Reliance Industries Ltd
Incorporated in the year 1966, Reliance Industries fall into the Refineries industry. It has a separate statement as it's method of presentation of HRA. It's medium of disclosure is through the annexure to the director's report. The organization supports human rights, values its workforce and invests in creative energy and economic development technology and solutions. The discount rate per annum is 7.50%. Determination of earnings are the aggregate future earnings incremented at 4% per annum. It carries out category-wise disclosure – management & non-management. It also provides explanatory statements.

(3) Bharat Heavy Electricals Ltd (BHEL)
BHEL, India's largest public energy and infrastructure engineering and manufacturing organization, has been incorporating human resource accounting data into its annual reports since 1978-1979. The company follows Lev and Schwartz's methodology to value its human resources, categorizing employees based on job, experience, and qualifications. Ten to fifteen wage grades are selected in each category to simplify computation of human resource value. BHEL has been profitable since 1971-1972 and has paid dividends. The first company in India to offer HRA was BHEL in 1974-1975. Efficiency was considered in 1980-1981 when assessing the worth of human resources. BHEL categorizes employees by age, grade, and category to value and report HRA data. Ratios such as Human Resource (HR)/Total Resource (TR), Human Resource (HR)/Fixed Assets (FA), Turnover/Human Resource Value, and Profit before tax/Human Resource Value are offered.

(4) National Thermal Power Corporation Ltd (NTPC)
Since 2005–2006, NTPC has been issuing HRA reports, categorising staff members into three groups: workers, supervisors, and executives. Since 2006, the organisation has used the historical technique of human resource accounting, which is essential for deciding on important HR management issues. Any organization's human resources are a valuable asset as they may directly or indirectly boost revenue. According to NTPC's General Manager of Accounts and Finance, HR accounting is a helpful tool for finance-related choices like compensation and pay modification because human resources are expensive. The management thinks the HR accounting system will be enhanced by the new Software Accounting Professional (SAP) and Enterprise Resource Planning (ERP) systems. At NTPC, the historical cost method for HRA is still used since it's simple to apply and comprehend. This approach determines the true cost of finding, interviewing, employing, developing, and training human resources, which is equivalent to the economic worth of the labour force. However, amortization lowers the capital cost of HR.

CONCLUSION
From the PRIMARY DATA, it highlights the significant awareness of Human Resource Accounting among youngsters and professionals. While there is common consent on the importance of Human Resource Accounting for decision-making and performance evaluation, challenges such as Absence of clear guidelines, difficulty in measuring employee value, etc. However, respondents have provided some insightful suggestions, including clear guidelines and an increased awareness campaign. Addressing these challenges and implementing

suggested improvements will be crucial for maximizing the potential of Human Resource Accounting in Indian organizations, ultimately leading to more informed decision-making and improved performance evaluation.

From SECONDARY DATA, it illustrates the growing recognition of human resources as valuable assets in Indian companies, despite regulatory hurdles. By adopting Human Resource Accounting practices and integrating human resource information into their financial reporting and decision-making processes, these companies have demonstrated a commitment to maximizing the potential and value of their workforce. Their experiences serve as valuable examples for other organizations seeking to leverage Human Resource Accounting for strategic advantage and sustainable growth in the dynamic business environment of India.

REFERENCES

- B.Mallikarjuna. (2016, December 4). HUMAN RESOURCE PRACTICES IN INDIA. *IJCRT*. Retrieved 02 18, 2024

- Kashyap, T. (2021, November 6). A Study On Human Resource Accounting Practices in India. *Webology*. Retrieved 02 18, 2024

- Mr. Mukesh Kumar, D. U. (2023, April). A Study of Human Resource Accounting Practices in India. *International Journal of Research Publication and Reviews*. Retrieved 02 18, 2024

- Prasanna, D. S. (2021, October). A STUDY ON HUMAN RESOURCE ACCOUNTING METHODS AND PRACTICES IN INDIA. *Journal of Emerging Technologies and Innovative Research*. Retrieved 02 17, 2024

- S, D. R. (2022, August). Human Resource Accounting Practices and its Impact on Managerial Performance: A Study. *The Review of Contemporary Scientific and Academic Studies*. Retrieved 02 17, 2024

- https://www.wallstreetmojo.com/human-resource-accounting/#h-methods-of-human-resource-accounting

- https://www.researchgate.net/profile/Rajendra-Kumar-27/publication/343636244_Conference_Proceedings_ICRTSTMSD'18/links/5f355da1a6fdcccc43c5cd93/Conference-Proceedings-ICRTSTMSD18.pdf#page=129

- https://www.researchgate.net/publication/342296276_The_Challenges_in_Applying_Human_Resources_Accounting_in_Auditing_Companies_Field_Study_in_Jordan

- Human Resource Accounting in NTPC-3 | PDF | Historical Cost | Human Resource Management (scribd.com)

- (PDF) Human Resource Accounting Practices in Public and Private Sector: An Indian Experience (researchgate.net)19454.pdf (journalcra.com)

- 3461701H_1365-1372.pdf (connectjournals.com)

- C2201021522.pdf (iosrjournals.org)

- (PDF) Human Resource Accounting Practices in Public and Private Sector: An Indian Experience (researchgate.net)

A STUDY ON PREFERRED MODE OF PAYMENTS BY PEOPLE IN MUMBAI

Dr. Poonam Popat[1], Ms. Devanshi Mehta[2] and Ms. Bhakti Goradia[3]
[1]Assistant Professor (Nagindas Khandwala College – Autonomous)
[2,3]Student of SYBAF (Nagindas Khandwala College-Autonomous)

ABSTRACT
The payment system in the world has evolved over the years from standard payment systems to digitization. Digital payment is a new modernized concept that offers an alternative to the traditional way of payment by increasing transparency and accessibility in transactions. Digital payment systems like debit cards, credit cards, UPI, etc. have become a necessary portion of advanced economies, advertising a wide range of benefits to businesses, shoppers, and the government. India is slowly adapting the digital payment system. Adaptation of Digital payment is important to keep up with new-age technologies and execute faster transactions. Convenience, safety, and security are major factors that play an important role in influencing people's perception regarding digital payment methods. This paper is an attempt to bring out the preferences of people regarding various payment options. For the purpose of the study we have used primary sources of data like questionnaires and it is also based on secondary sources of data collected from journals and articles. Even though India is paving the way towards faceless, cashless, and paperless transactions, some people may have not adapted digital payment system and still prefer traditional payment methods. The government should seek some new policies to improve the utilization of digital payment modes and ensure their continuation.

Keywords: digital payment, UPI, debit card, credit card.

INTRODUCTION
Digital Finance is the action of performing traditional banking services through the use of various technological tools. Digital payments are a medium or a channel through which one can transfer monetary value from one account to another.

Over the years, digital finance has seen exponential growth in India which has brought drastic changes in the payment preferences of common people. This transformation towards digital finance has aided in increasing transparency in transactions.

DIFFERENT DIGITAL PAYMENT MODES
1. **Debit Card:** It is a payment card that automatically deducts the amount of the purchases from the bank account.

2. **Credit Card:** It is a pre-paid payment card that permits you to get credit from banks for a certain period of time with appropriate interest charges.

3. **UPI:** Unified payments interface is a system that empowers multiple bank accounts into a single mobile app catering to peer-to-peer, merchant-to-consumer, etc transactions around the clock smoothly.

4. **Others:**

a. **NEFT:** National Electronic Funds Transfer is the system developed to facilitate inter-bank transactions with applicable GST charges.

b. **RTGS:** Real Time Gross Settlement allows the transfer of funds without any delay of time.

c. **IMPS:** Immediate Payment Service is an inter-bank electronic funds transfer that permits 24/7 instant transfer service with defined charges.

Generally, the following information is required for digital transactions – Bank Account Number, VPA, CVV, receiver's bank account number, online transaction ID, PIN number, etc

OBJECTIVES:
The objective of the study is to find out the preferred mode of payment used by people in Mumbai.

RESEARCH METHODOLOGY
The research is observational in nature. It is based on primary data obtained through surveys filled out by various individuals and secondary data collected from journals and articles.

REVIEW OF LITERATURE

(Sarat Dhal, Bhanu Pratap, Sudhiksha Shree, Rajas Saroy, 2021) The paper highlighted the choice of the consumers of India whether they prefer to go entirely digital or exercise a mix of cash and digital payments and the effect of various psychological factors. The paper tried to emphasize on the factors that affect the consumers' payment preferences. Concluding remarks stated that consumers were more elated towards digital payment adoption than on cash transactions. India can be anticipated to grow in the line of digital payments in the future.

(Dr. Ranjith P.V., 2021) The paper highlighted how different technological advancements and government policies have an effect on how customers pay in India. The study attempts to show how these major changes have influenced the thinking of people towards the payment system and the challenges that they face. The findings show that the technology in India about cashless methods is increasing daily.

(Shamsher Rana, 2017) Reviewed in their paper that demonetization has brought a behavioral change in the adoption of digital payments in India. The paper throwed light on the fact that demographic factors don't have any impact on the adoption of digital payments. The concluding remarks indicated that the adoption of digital payment mode is entirely dependent on the education level of an individual.

(Pandey, 2022) The paper stressed how, over the years, the payment system has evolved. Before, there was a traditional way of payment, which was cash, and now, in recent years, digital payment has taken over the old way of payment system. The study also shows how COVID-19 has affected digital payments as people have shifted to digital modes of payment because of concerns about their health and safety. The concluding remarks state that digital modes of payment are expected to drastically change over the coming years and how customers perceive this change.

(K.Suma vally, 2018)The prime focus was on the growth of digital payments through government initiatives. The paper tried to bring out the positive impact of the digital payment system. The paper also highlighted that the adoption of technology for digital payment has tremendously improved the banking sector and has been able to achieve the motive of a cashless country.

OBJECTIVES

1. To understand the perception of individuals towards various payment modes

2. To study the preferences of individuals in Mumbai towards digital payments.
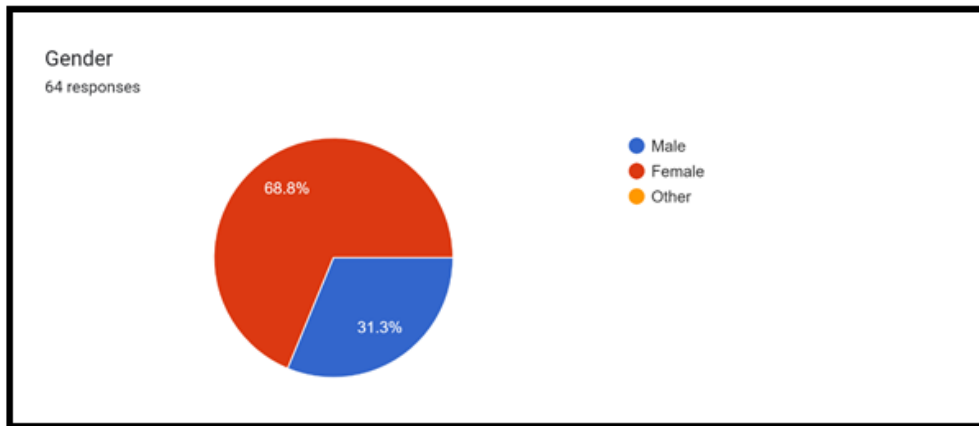
GRAPH 1
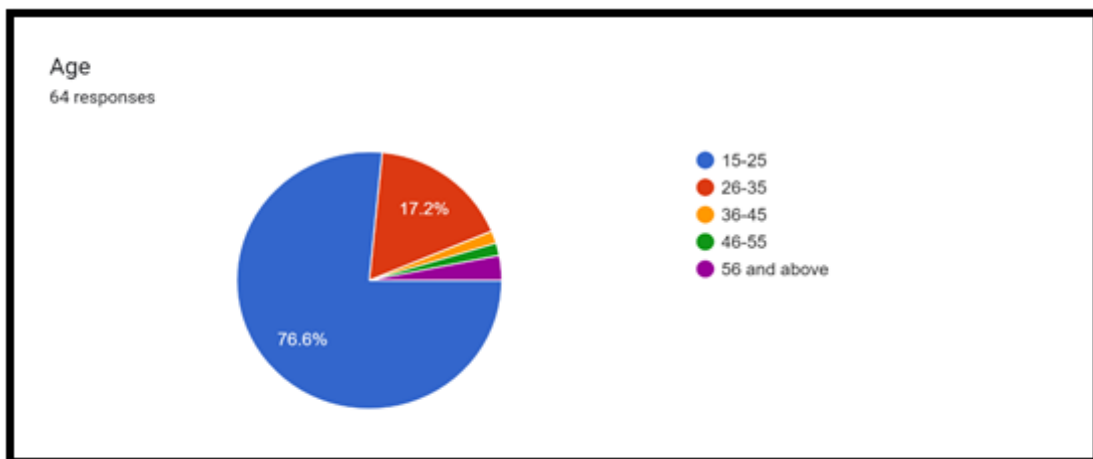
INTERPRETATION:

The above data shows the demographic factor of payment preferences of people in Mumbai

The major part of this survey is in the range of 76.6% of respondents belonging to the age group of 15-25 years. One can see that 17.2% of the respondents belong to the age group of 26-35 years. Only 1.6% of respondents were belonging to the age group 36-45 and 46-55 and 3.1% of respondents belonging to the age group of 56 and above.
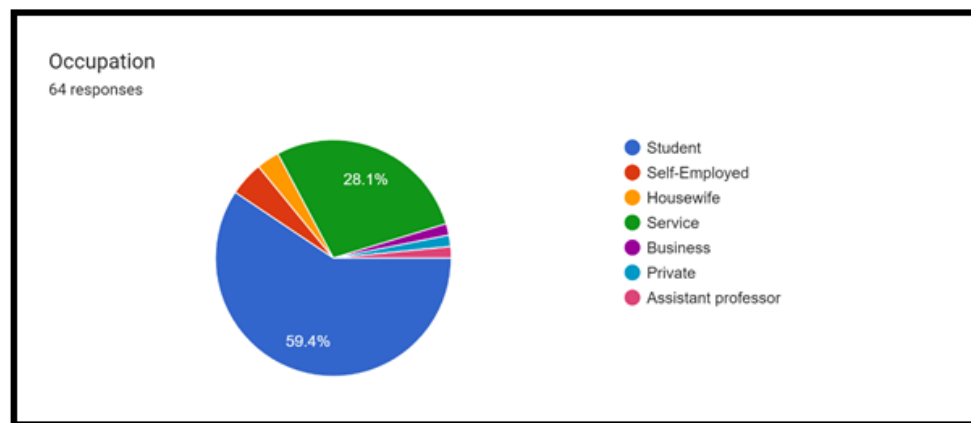
GRAPH 2

INTERPRETATION:

From the above diagram, one can perceive that key respondents of this survey were female extending up to 68.8%, while on the other hand, male respondents stretched up to 31.3%.

GRAPH 3

INTERPRETATION:

A considerable part of the respondents were students stretching up to 59.4%, and 28.1% of responses were collected from people in the service sector. The diagram demonstrates that there were 3.1% and 4.7% responses from housewives and self-employed individuals respectively. There were only 1.6% of respondents belonging to business, private, and others independently.
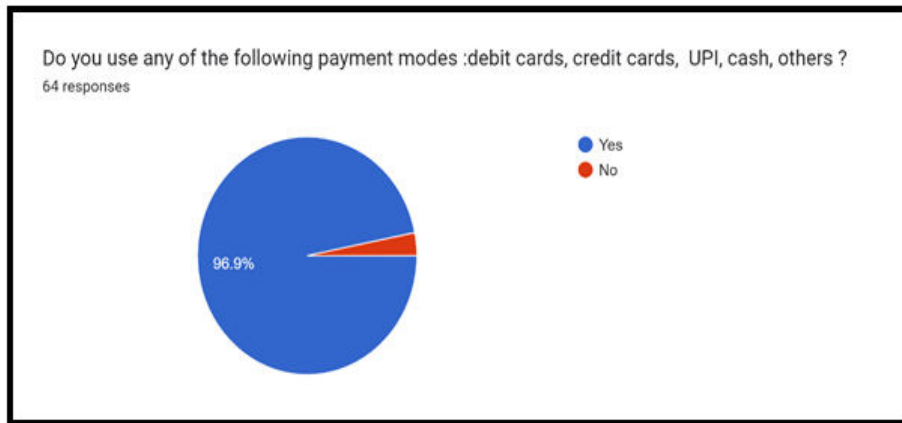
GRAPH 4
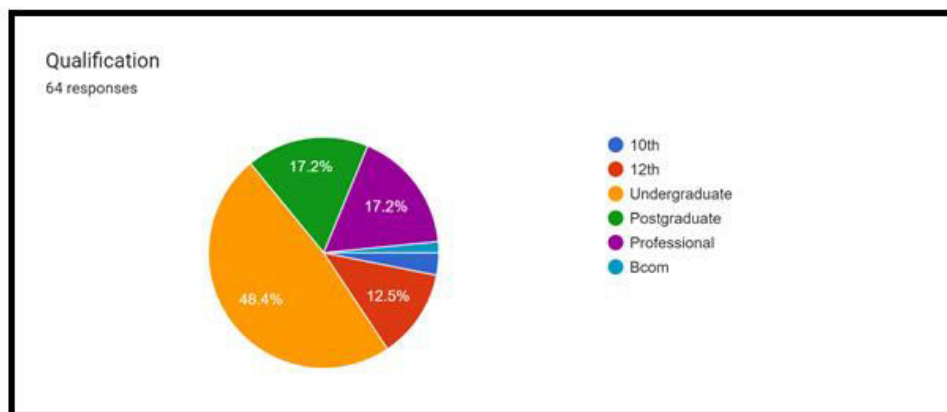
INTERPRETATION:

From the data given above one can interpret that a significant part of the survey was taken by undergraduates covering up to 48.4% of the chart. Both professionals and post-graduates covered 17.2% of the chart independently. While respondents from the 10th standard covered 3.1% others covered only 1.6% of the chart.
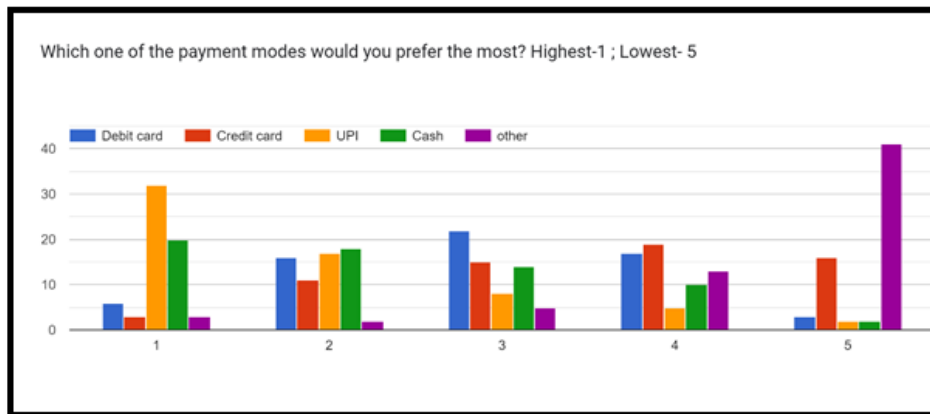
GRAPH 5

Do you use any of the following payment modes :debit cards, credit cards, UPI, cash, others ?
64 responses

- Yes
- No

96.9%

INTERPRETATION:

The above chart shows that while most of the respondents extending up to 96.9% are acquainted with various digital payment modes, there were respondents stretching up to 3.1% who are unknowing with the following terms.
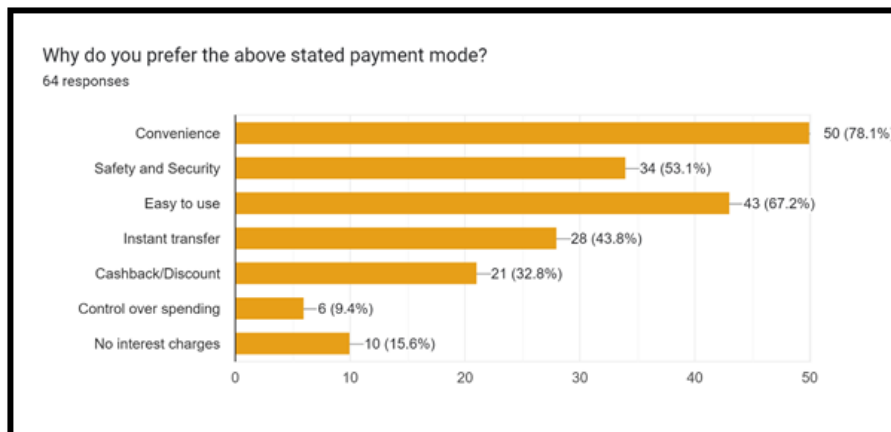
GRAPH 6

Which one of the payment modes would you prefer the most? Highest-1 ; Lowest- 5

Debit card   Credit card   UPI   Cash   other

INTERPRETATION:

The above table can conveniently explain that the most favoured mode of payment by the individuals of Mumbai is UPI. Cash has also received the most responses and it is ranked 2nd among the other payment modes. The other payment modes like debit cards, credit cards, and other payment modes are ranked as 3rd, 4th, and 5th respectively.

GRAPH 7

Why do you prefer the above stated payment mode?
64 responses

|	
Convenience	50 (78.1%)
Safety and Security	34 (53.1%)
Easy to use	43 (67.2%)
Instant transfer	28 (43.8%)
Cashback/Discount	21 (32.8%)
Control over spending	6 (9.4%)
No interest charges	10 (15.6%)

INTERPRETATION:

The diagram shows that the majority of the respondents prefer payment modes based on convenience (78.1%) and accessibility (67.2%). While safety and security play a crucial role in selecting the preferred payment mode

instant transfer facilities also boost their decision in utilising them. 32.8%, 9.4%, and 15.6% of the respondents prefer payment modes based on cashback they receive on transactions, control over their spending, and no interest charges respectively.
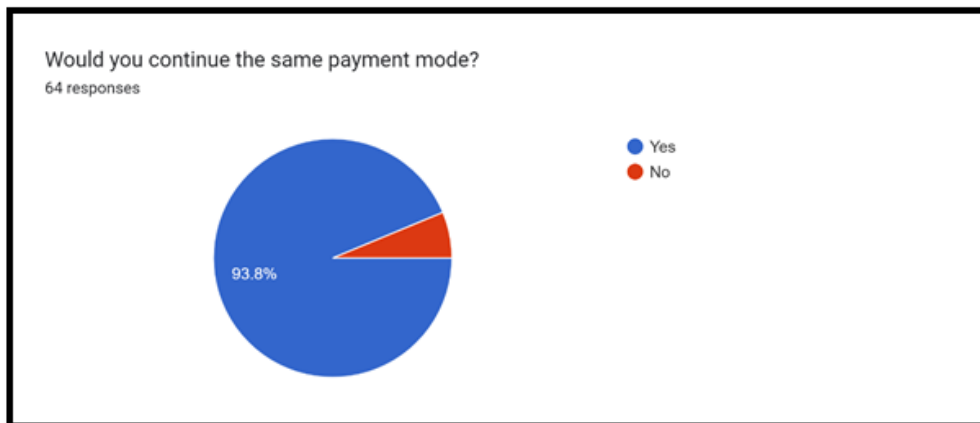
GRAPH 8
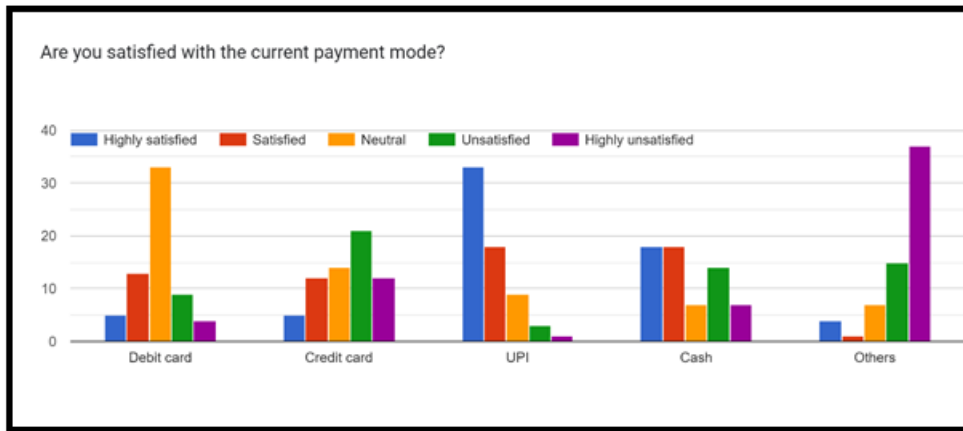
INTERPRETATION:
The highest satisfaction level of respondents is in relation to UPI followed by cash and debit cards. The level of satisfaction is the lowest in the payment modes concerning credit cards and others.

GRAPH 9

INTERPRETATION:
This evinces that while 93.8% of the answerers are content with sustaining the same payment modes, but there are 6.3% of the answerers are not content with sustaining with same payment modes.

GRAPH 10
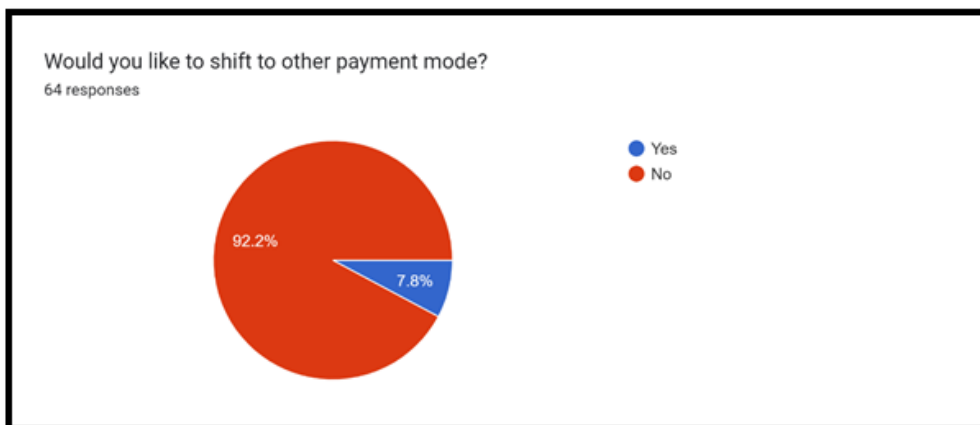
INTERPRETATION:
Out of the total respondents,92.2% have mentioned that they do not wish to shift to other payment modes that they utilize since they find it more timely and user-oriented. Other 6.3% of respondents have mentioned that

they wish to shift to other payment modes. The reasons the respondents mention for shifting their modes of payment are generally the following: Easy, safe, instant, eco-friendly, Reduction in risk of theft/loss of cash, convenience, control over spending, etc
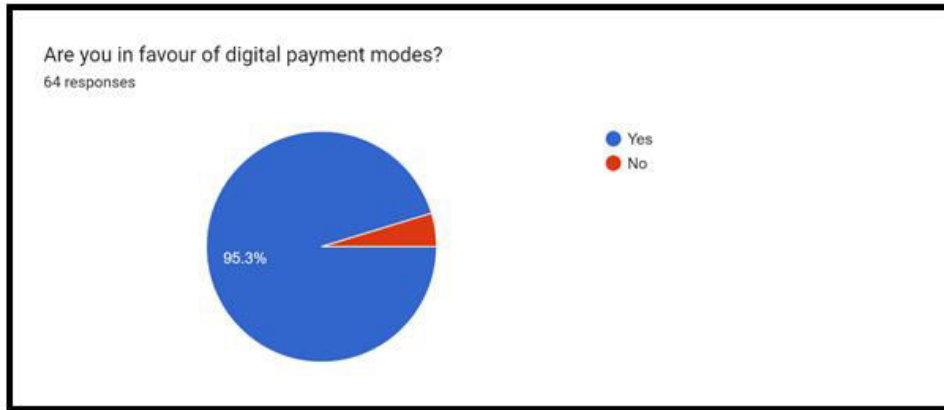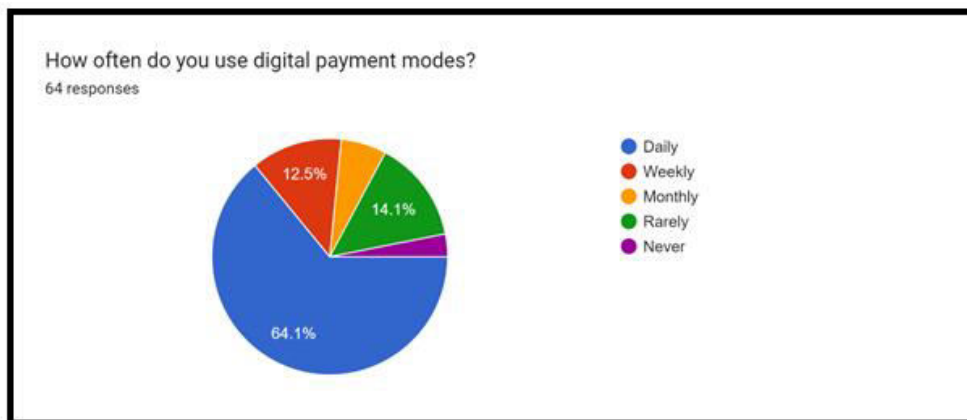
GRAPH 11

INTERPRETATION:

The study interprets that more than half (95.3%) of the respondents of Mumbai are in aid of digital payment systems. This happens to show that people have adapted to the digitalization of the payment system.

GRAPH 12

INTERPRETATION:

This diagram displays that a considerable part of the respondents make use of digital payment modes daily covering 64.1% of the chart. 12.5% and 6.3% of the respondents utilize digital payment modes weekly and monthly independently. While 14.1% of the respondents rarely use digital payment modes 3.1% of the respondents never use them.

CONCLUSION

Previously people mainly preferred traditional ways of payment i.e. cash on a large basis but due to COVID-19, the use of digital payment modes has been in the limelight. 'Faceless, Paperless, cashless' is the new agenda being adopted by the people of India. Through this research, it is found that people in Mumbai prefer UPI transactions the most irrespective of their demographic factors. While India is paving the way towards digitization, some people in Mumbai still prefer cash as an alternative mode of payment. Even though the use of debit and credit cards is prevailing a small portion of people still find flaws in them like interest charges, safety, security, penalty, repayment issues, etc. Even though a significant part of people has adapted to digitization there is still scope for improvements to thoroughly go digital. The government also needs to implement various schemes in the form of cashback and discounts to attract the attention of people to make use of digital payment modes and ensure continuing use in the future.

REFERENCES

1. Dr. Ranjith P.V., D. S. (2021). A Literature Study Of Consumer Perception Towards Digital. *PSYCHOLOGY AND EDUCATION*, 16. Retrieved February 13, 2024, from https://www.researchgate.net/publication/349381000_A_Literature_Study_Of_Consumer_Perception_Towards_Digital_Payment_Mode_In_India

2. K.Suma vally, D. K. (2018). A study on Digital payments in India. *International Journal of Pure and Applied Mathematics*, 9. Retrieved February 13, 2024, from https://www.acadpubl.eu/hub/2018-118-24/2/378.pdf

3. Pandey, S. K. (2022). A Study on Digital Payments System & Consumer Perception: An. *Journal of Positive School Psychology*, 11. Retrieved February 13, 2024, from https://journalppw.com/index.php/jpsp/article/view/5568

4. Sarat Dhal, Bhanu Pratap, Sudhiksha Shree, Rajas Saroy. (2021). Digital Payments and Consumer Experience in India. *Journal of Banking and Financial Technology*, 21. Retrieved February 13, 2024, from https://www.researchgate.net/publication/347538679_Digital_Payments_and_Consumer_Experience_in_India

5. Shamsher Rana, R. R. (2017). STUDY OF CONSUMER PERCEPTION OF DIGITAL. *Journal of Internet Banking and Commerce*, 14. Retrieved February 13, 2024, from https://www.icommercecentral.com/open-access/study-of-consumer-perception-of-digital-payment-mode.php?aid=86419

6. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3947792

7. https://main.mohfw.gov.in/?q=digital-payment

8. https://www.researchgate.net/publication/362891071_A_Study_on_Consumer_Perception_Towards_Digital_Payment

A STUDY ON THE FISCAL POLICIES AND ITS IMPLEMENTATION TOWARDS DEVELOPMENT OF D.B. PATIL INTERNATIONAL AIRPORT, NAVI MUMBAI

Ms. Krisha Bhandari

Student, Usha Pravin Gandhi College of Arts, Science and Commerce, Mumbai

ABSTRACT

The study presents a comprehensive analysis of the D B Patil airport project, emphasizing its transformative impact on regional infrastructure and economic development. Through an exploration of the project's inception, construction phases, and underlying fiscal policies, key insights are drawn regarding the significance of air travel in fostering economic integration and growth. The study underscores the project's alignment with broader objectives of enhancing connectivity and reducing the burden on existing airports, thereby contributing to regional development and sustainability. Notably, the project's emphasis on sustainability and innovation, including the incorporation of eco-friendly technologies and culturally significant architectural designs, reflects a forward-thinking approach to infrastructure development. Furthermore, the study highlights the pivotal role of government fiscal policies in mobilizing resources and facilitating public-private partnerships to realize ambitious infrastructure project. Overall, the findings underscore the D B Patil international airport project's potential to reshape the economic landscape, promote multimodal connectivity, and drive sustainable growth in the region.

Keywords: D B Patil airport, Infrastructure development, Economic integration, Air travel, Fiscal policies, Regional connectivity, Sustainability, Innovation, Public-private partnership, Phased development, Multimodal connectivity, Government investment, Environmental footprint, Cultural significance, Economic growth, Public savings, Private savings mobilization, Government borrowings, Resource mobilization, Sustainable development

INTRODUCTION

Who would have thought that once a barren land will become such a masterpiece of infrastructure creation? The study takes a deep dive into the new D B Patil airport project and how the government using its fiscal policies bring in macroeconomic stability. Why is air travel necessary? Air transport facilitates integration into the global economy and provides connectivity on local as well as international scale. It helps generate trade, promote tourism, and generate employment. What are fiscal policies? Fiscal policies are the use of government spending and taxation to influence the economy to promote sustainable growth, named after **Dinkar Patil**, the former Member of Parliament and is also the leader of the Peasants and Workers Party of India. The main aim of building this airport is to reduce the pressure on Chhatrapati Shivaji Maharaj International Airport, Mumbai and enhance regional connectivity. The foundation stone for the project was laid by Prime Minister Narendra Modi on 18 February 2018, and construction was started in August 2021, after more than three years of land acquisition, it is expected to be completed and become operational by March of 2025. Area: 1,160 hectares. Navi Mumbai International Airport Limited (NMIAL) is jointly owned by MIAL (74%) and City and International Development Corporation (CIDCO) (26%). CIDCO is building the airport through a public-private partnership model on a Design, Build, Finance, Operate and Transfer (DBFOT) basis. The Budget for this project is Rs.16700 crores. Different firms contributed to this airport project: Larsen &Toubro for detailed design and is the Civil Construction Contractor, RITES for the master plan, Zaha Hadid Architects for the terminals and control tower (aesthetics), and Jacobs Engineering Group for the terminal size (functionality). (TheMetroRailGuy, 2023)

LITERATURE REVIEW:

Navi Mumbai is on the cusp of becoming a pioneer, establishing itself as the first Indian metropolis to boast two international airports. This groundbreaking development promises to significantly augment the region's connectivity, fostering a more interconnected and accessible landscape. The architects behind this ambitious project have prioritized sustainability, incorporating cutting-edge technology like on-site solar power generation and a comprehensive network of electric vehicle charging stations. This eco-conscious approach aims to minimize the airport's environmental footprint, ensuring responsible and sustainable operations. Furthermore, the terminal's design draws inspiration from India's national flower, an aquatic perennial-Lotus. This unique architectural vision is expected to create a visually striking landmark, adding a touch of cultural significance to the project. By 2032, the Navi Mumbai International Airport is projected to become a bustling hub, handling a staggering 2.5 million tons of cargo annually while simultaneously catering to the needs of a remarkable 95

million passengers. This transformative project holds immense potential to reconstruct the region's economic landscape, fostering growth and opportunity for years to come. (Sharma, 2023)

FINDINGS AND SUGGESTIONS:

The project is divided into five phases. The Union Minister of Civil Aviation – Jyotiraditya Scindia said the first two phases will begin together which involves one runway, one terminal being operational and a two-crore passenger capacity. An area of 9.5km^2 is being occupied by the airport and it will have **two** runways and **four** terminals and will accommodate 42 aircraft. As of November 2023, 57% of the physical work is claimed to be completed by Adani.

The five phases of construction will go about as follows:

Phases 1 & 2:
o One runway will be built.

o One terminal will be constructed.

o The combined capacity will be 2 crore passengers annually. The first phase also focuses on creating a hundred percent green airport.

Phases 3, 4 & 5:
o A second runway will be added.

o Four additional terminals will be built.

o The total capacity will reach 9 crore passengers annually.

In accordance with the Gati Shakti National Master Plan, initiated by Prime Minister Narendra Modi, a multimodal connectivity infrastructure to various economic zones will be created by bringing in road transport, Metro and even waterways which will be connected to the airport. To build and make the airport convenient, other modes of transport are being created. There will be generation of more employment, the burden on Mumbai airport will be reduced and flying capacity of the country will increase. (Avi)

Roadways
1. Mumbai Trans Harbor Link (Atal Setu) provides an entry to the western side of the airport from South Bombay.

2. Sion-Panvel Highway from the central line (National Highway 4B).

3. Ghodbunder road, Thane-Belapur road, western side entry from North of Bombay.

4. Mumbai-Pune expressway, entry to the eastern side from Pune.

Railways
1. CSMT Panvel- Harbor link

2. JNPT Rail Link

3. Urban Belapur Rail Link (closest to the airport)

Metro
1. Navi Mumbai- Metro line 1(will be extended towards the eastern side of the airport)

Proposals:

Metro line 8(linking both the Mumbai airports)

Metro line 4

Plans for Further Development.
- **Waterways** are also going to be developed in future.

- **Hovercraft**: Plans include connecting the airport to South Mumbai through hovercraft.

- Cargo Liners: In phase 2, cargo liners are envisioned to connect the airport to Raigad.

- Mumbai-Hyderabad high speed rail (Bullet train).

- **There are also APM- Automated Public Mover** carrying passengers across terminals. It will be an internal transport system. (IAS, 2023)

All in all, the Airport will be convenient to reach to for anyone within 60-80kms.

Fiscal policies are all about reconstructing the economic landscape through taxation. It is a vast and lengthy procedure.

The Process Involves Major Parts:

1. Land Acquisition

According to the **Doctrine of eminent domain** if the Central Government requires any land for the development of the country, or any other purpose, may acquire such land under the provisions of the Land Acquisition Act, 1894 by compensating the owner of the property. The amount to be paid is four times the market value in rural areas and two times the market value in urban areas. The Amended Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 exempts land acquisition for infrastructure development, affordable housing, and certain categories of industrial projects from Social Impact Assessment (SIA). Through this act it became very accessible to acquire the Land around the airport.

2. Durable Building Materials and Contractors

A huge infrastructure plan requires many contracts between developers, construction companies, design companies, maintenance companies, etc. In this case, many deals with aircraft manufacturers and air traffic control licensing etc. are also required. A provision for high quality products is necessary along with sustainable and environmentally friendly designs and landscape. Airport creation is a capital investment and millions of lives depend upon it being secure and perfectly operational.

3. Budget

Being the most important part of development, finance is required on a large scale to implement the expansion of such a project. Forecasting the approximate amount which will be used for the progress, the amount that will be recovered and the duration in which it will be reclaimed, money that should be raised, the stake that should be distributed, loan taken from public sector, private sector banks, issue of bonds, treasury bills (to minimize the fiscal deficit of the country), etc. are the budgetary decisions that has to be taken at the planning stage to meet the expectations of the project.

How is the Government Able to Afford this Development?

1. Investment- Adani has made an equity infusion of ₹1,710 crores. Adani and CIDCO will invest an additional ₹1,511 crores as the project moves ahead. In all Adani is going to make an investment of $1 billion.

2. Yearly Financial Budget- Every year a budget is passed, in which a certain amount is kept for infrastructure development, from those expenses, the amount required for construction of this airport is paid which is collected by taxation from public.

3. Toll posts- The NHAI (National Highway Authority of India), under the central government, manages the toll collection. So, it is the NHAI that sets up booths to collect the toll taxes. They collect the toll tax only from the four-wheeled or larger vehicle drivers who pass by toll roads. Funds are generated through these toll posts from passengers who pass by.

Airport is an expenditure which will have high returns as soon as the airport becomes operational. Government will recover its money by making brand deals, selling advertisement space from inside and outside terminals, ticket costs, parking, ground transportation fees and rental cars, through special events and sponsored spaces to enhance the ambience.

To fuel public expenditure and drive development initiatives, the Indian government employs a multifaceted approach to resource mobilization:

1. **Taxation:** Serving as the backbone of the system, taxation generates the bulk of government revenue. This encompasses both direct taxes, levied on individual and corporate income and wealth, and indirect taxes, imposed on the consumption of goods and services. By implementing sound fiscal policies and ensuring efficient tax collection, the government strives to maximize this crucial revenue stream.

2. **Public Savings:** Recognizing the importance of responsible fiscal management, the government prioritizes controlling expenditure and generating surpluses within the public sector. This accumulated pool of public savings serves as a valuable resource for future investments in infrastructure, social programs, and other development projects.

3. **Private Savings Mobilization:** The government acknowledges the vital role that the private sector plays in economic growth and development. Through carefully designed fiscal measures, such as strategic tax incentives and investment-friendly policies, the government aims to encourage individuals and businesses to save and invest. This facilitates the mobilization of private savings, channeling essential resources towards national development goals.

4. **Government Borrowings:** To bridge any potential gaps between revenue and expenditure, the government utilizes various borrowing mechanisms. This includes issuing treasury bills and bonds, seeking loans from domestic and international financial institutions, and employing deficit financing (borrowing to cover spending deficits). However, the government exercises caution in utilizing this approach, acknowledging the need for responsible debt management to ensure long-term financial stability.

By strategically employing this multi-pronged approach, the Indian government aims to secure the necessary resources for public expenditure and development initiatives. This comprehensive strategy ensures a diversified and sustainable source of funding, paving the way for a more prosperous and equitable future. (ISPP, 2015)

CONCLUSIONS

Based on the provided information, several key points can be drawn to conclude the significance and impact of the D B Patil airport project and the government's fiscal policies:

1. **Infrastructure Development:** The D B Patil airport project represents a significant investment in infrastructure development, transforming what was once barren land into a masterpiece of modern aviation infrastructure. The project's scale and ambition demonstrate the government's commitment to enhancing regional connectivity and reducing the burden on existing airports like Chhatrapati Shivaji Maharaj International Airport in Mumbai.

2. **Economic Integration and Growth:** Air travel is essential for integrating regions into the global economy, promoting trade, tourism, and employment generation. The construction of the new airport is expected to stimulate economic growth in the region by facilitating easier access to domestic and international markets.

3. **Sustainability and Innovation:** The project incorporates sustainability measures such as on-site solar power generation and electric vehicle charging stations, showcasing a commitment to environmentally responsible operations. Additionally, innovative architectural designs inspired by India's cultural heritage aims to create a visually striking and culturally significant landmark.

4. **Phased Development and Multimodal Connectivity:** The project is divided into phases, with the initial phases focusing on essential infrastructure like runways and terminals, gradually expanding to accommodate increasing passenger capacity. Furthermore, the integration of various transportation modes like road, rail, and metro with the airport ensures seamless connectivity, in line with the government's broader vision for multimodal infrastructure development.

5. **Fiscal Policy and Resource Mobilization:** The government's fiscal policies play a crucial role in funding large-scale infrastructure projects like the D B Patil airport. Through mechanisms such as taxation, public savings mobilization, private sector incentives, and responsible borrowing, the government secures the necessary resources for public expenditure and development initiatives.

6. **Public-Private Partnership (PPP) Model:** The airport project utilizes a PPP model, with joint ownership between Mumbai International Airport Limited (MIAL) and City and Industrial Development Corporation (CIDCO). This partnership model allows for efficient resource allocation and risk sharing between the public and private sectors.

In conclusion, the D B Patil airport project represents a significant milestone in regional infrastructure development, with the potential to drive economic growth, enhance connectivity, and promote sustainability. The government's fiscal policies and strategic partnerships play a crucial role in financing and implementing such ambitious projects, ultimately benefiting the economy and society at large.

BIBLIOGRAPHY

(n.d.). AviationSource news.

IAS, S. (2023).

ISPP. (2015). *Analysing the impact of India's Fiscal policy on economic growth.* The indian school of public policy.

Sharma, B. (2023). *Navi Mumbai International Airport: project details, status and latest updates.* 99acres.com.

TheMetroRailGuy. (2023).

ANALYSING THE ADOPTION AND IMPACT OF CRYPTOCURRENCIES

Aryan Shah

Student, Third Year BMS, SVKM's Usha Pravin Gandhi College of Arts, Science and Commerce

ABSTRACT

Emerging as a disruptive technology, cryptocurrencies have the power to completely alter the financial sector. The purpose of this study paper is to examine cryptocurrency adoption and its effects from a variety of angles. This research study is based on secondary data that the author has researched and gathered from a variety of sources. The secondary data made it evident that the cryptocurrency market is still developing and overcoming obstacles. It also appeared increasingly likely that Bitcoin and other digital assets will revolutionize how we conduct transactions, store value, and access financial services, as well as change the global financial system. A cryptocurrency-based ecosystem can help entrepreneurs by streamlining the fundraising process and open doors for new players in the industry. Initial coin offerings, for example, allow business owners and financiers to fund new ventures without the need for middlemen and the approval of established financiers and investors. The community of developers, entrepreneurs, investors, and users who are passionate about cryptocurrency is driving its continuous progress. Cryptocurrencies like Bitcoin are at the forefront of this fascinating change of the future of money.

Keywords: Cryptocurrencies, Bitcoin

INTRODUCTION

A digital payment method called cryptocurrency doesn't rely on banks to validate transactions. Peer-to-peer technology makes it possible for anybody, anywhere, to give and receive money. Digital entries to an online database detailing individual transactions are the only thing that cryptocurrency payments are made with, as opposed to actual money that is carried and exchanged in the real world. A public ledger keeps track of all cryptocurrency transactions that take place when money is transferred. Crypto wallets are used to store cryptocurrency.

The fact that cryptocurrency uses encryption to confirm transactions is how it got its name. This indicates that the storage and transmission of bitcoin data between wallets and to public ledgers require sophisticated coding. Encryption is used to make things safe and secure.

Bitcoin was the first cryptocurrency and is still the most well-known today. It was launched in 2009. The main attraction of cryptocurrencies is trading for financial gain, with speculators occasionally sending prices through the roof.

Blockchain, a distributed public ledger that records all transactions and is updated by currency holders, is the foundation upon which cryptocurrencies operate.

Through a procedure known as mining, which uses computer power to solve challenging mathematical problems that yield coins, units of cryptocurrency are created. Cryptographic wallets can be used by users to store and spend the currencies they purchase from brokers.

You don't possess anything material if you own cryptocurrency. What you possess is a key that lets you transfer data or a unit of measurement from one person to another without the assistance of a reliable outsider.

Despite the fact that Bitcoin has been available since 2009, there are still many untapped financial applications for cryptocurrencies and blockchain technology, with more expected in the future.
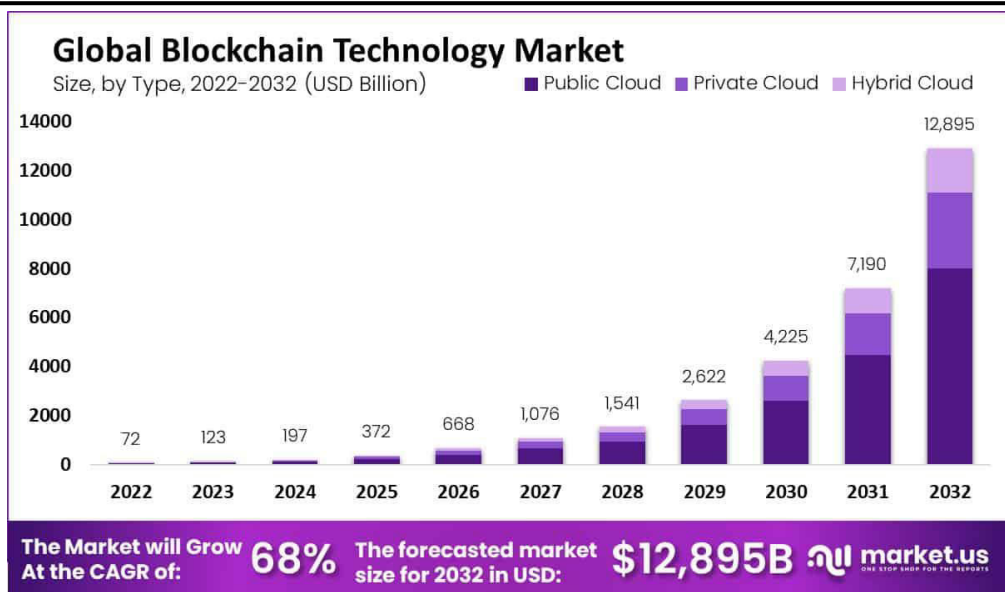
The size of the global robot advisory market is expected to increase at a compound annual growth rate (CAGR) of 29.7% from USD 72 billion in 2022 to USD 12,895 billion by 2032.

REVIEW OF LITERATURE

2022 •

ioannis Novakos

In this work, the reasons for the widespread dissemination, adoption and use of cryptocurrencies, particularly Bitcoin as a medium of business transactions, are explored and addressed. In essence, Bitcoin is recognized by market capitalization since 2009 as the first decentralized payment network and, for that matter, the best and dominant cryptocurrency. The method used for the preparation of this paper is the critical-interpretive review of various empirical studies on digital currencies. Despite this, it is found that the adoption of cryptocurrencies such as Bitcoin by businesses is still at an early stage, as there is no widespread and universal acceptance and use of it in their daily transactions.

2021 •

Mona Seyed Esfahani

The cryptocurrency market has been described as revolutionary due to the constant technological evolution and innovation that the blockchain technology provides. Leading many to believe that this could be the next step for the human race, just like how fiat currency replaced gold. Cryptocurrencies were originally created to be a form of savings or income for the unbanked, reduce costs and energy consumption, for a means of data transparency and to remove financial intermediaries. It is undeniable that the cryptocurrency market has created a divide of opinions, as some look to explore the market further while others reject the thought of adopting this innovative technology completely.

Hassan jamil

Cryptocurrency has revolutionized the economic system of the world. It provides a new and innovative means of exchange that has speedily invaded the financial market trends and changed the traditional cash world. However, consumers have low acceptability for blockchain-based cryptocurrency due to increasing online scams and the absence of a regulatory framework. There is also a misconception about its usage on many platforms, which has created a clear gap in the literature to address this issue. Therefore, the current study intends to investigate the effect of technology awareness on the behavioral intention of crypto users through perceived factors (usefulness, ease of use, risk).

Statement of the Problem:

The research paper is aimed at understanding the impact of Cryptocurrencies as well as understanding the growth of cryptocurrencies.

RESEARCH METHODOLOGY:

The research is based on primary and secondary data sources.

RESEARCH METHODS:

a) **Secondary Data-** From articles, websites, newspapers, journals, and research papers.

b) **Primary Data-** No primary data is used as the scope of research is limited.

RESEARCH OBJECTIVES:

- To understand the significance of cryptocurrencies according to the perception of investors. • To analyse the perception of investors towards cryptocurrencies.

- To study the factors considered by the investors & those which ultimately influence him while investing.

- To predict the future prospects of the cryptocurrency investment market.

- Examining the current profitability of various cryptocurrencies. Analysis helps in finding out the earning capacity and returns of cryptocurrencies.

Data Analysis

Bitcoin strengths: cryptocurrency can't be tracked or stolen.

Blockchain, a peer-to-peer network, facilitates communication between senders and recipients in Bitcoin. There are just the two of them involved. It is not like any other currency transfer technique that requires a middleman, such as a bank. It is forbidden to use an intermediary in Bitcoin transactions.

Additionally, because there is no such unavoidable third party, Bitcoin is a currency free from taxes. Bitcoin is not governed or controlled by the government.

The fact that it is not foolish in the face of economic uncertainty is a huge plus for the majority of Bitcoin users. The sender and the recipient agree on the value of Bitcoin. Not a company. Bitcoin has the resilience to withstand economic downturns.

Surprisingly, this isn't the reason why Bitcoin has been so popular in the previous few years.

The Real Strength is the Secrecy.
Everybody connected to the Blockchain has a unique private wallet address. Bitcoin trading is completely anonymous.

It is completely untraceable. Unless, of course, you choose to disclose your wallet address, which most users choose not to do. Because your financial information is completely hidden due to anonymity.

Each Bitcoin is granted a unique PIN number that conceals the seller's identity. The PIN is reset when the Bitcoin is sold. The PIN is currently only known by the buyer. Unless the present owner chooses to reverse it, it is irreversible.

This implies that you cannot steal Bitcoin, even though it also implies that nothing can be done once it has been transferred. Your real wallet is vulnerable to theft. Your online bank account might be taken over and credit card information stolen.

Bitcoin Weaknesses: Crippling Slow Transactions and Accessibility Loss.
Blockchain: The more users it has, the faster transactions may be completed.In essence, the blocks enlarge with increased usage. making everything cumbersome and sluggish. Up to now the issue has been fixed, and it is doubtful that the use of traditional credit cards will be replaced by Bitcoin.

Not all problems lie with the system.

Remember the issue with the password for your Bitcoin wallet. The transactions are encrypted, thus it is not feasible to retrieve a lost password. You would be shocked at how frequently users lose access to their Bitcoins due to password forgetting. Indeed, back when Bitcoin was really inexpensive, a man purchased a few of them.

It would now be worth millions if he could just figure out how to get into his wallet.

What about Bitcoin's potential to survive?

Over time, Bitcoin's value has fluctuated wildly. In spite of this, the media continues to publish articles asserting that Bitcoin is the currency of the future.

But it's just as erratic and fickle as stocks. The value might double tomorrow. The following day, it might collapse. This currency's dependability is too dubious to fully replace cash.

Bitcoin Opportunities: Safety from Compromising Data Breaches

As a society, we are shifting from fiat money to digital currencies. Indeed, major retailers like Amazon currently use Bitcoin as payment for their products. If businesses the size of Amazon are realizing the potential of Bitcoin, it's reasonable to expect that others will too.

And what about the increasing enmity that exists between the banking institutions and the generalpublic? People are searching for realistic, safe, and secure ways to avoid going to banks. Customer data is regularly compromised in data breaches affecting well-known companies like Facebook and Wells Fargo.

Bitcoin threats: the Anonymity Against Governments and Banks

One advantage is anonymity. A chance. It is a problem, though.

Anonymous purchasing can be hazardous when used improperly. Criminals will become more aware of the untraceable nature of the transaction. Since Bitcoin is going to be used for more evil purposes the more people embrace it, let's face it.

After all, the government and law enforcement will also have issues with it. Finding and prosecuting criminals will become more difficult for law enforcement if more people start using Bitcoin for their illicit purchases. As such, further rules and policies pertaining to cryptocurrencies may be implemented. The government will attempt to implement it even if the anonymity may make it impossible.

People are afraid of what these bills will do. New tech regulations fall short.

BENIFITS OF CRYPTOCURRENCY

Job Opportunities:-

There may be more rivalry for top talent in the blockchain and cryptocurrency space as a result of more firms re-entering the market. Top talent in the blockchain area will have many suitors, including programmers, production engineers, project managers, and blockchain developers. Among others, group administrators, content creators, industry advisors, and advertising will now play a significant part in the country's adoption of cryptocurrencies, which will now be sought after by numerous firms.

Immunity from Theft –

The banking system and the economy it supports are nevertheless vulnerable to fraud and robbery. The earth is, as we all know, growing more susceptible to sophisticated hacks and leaks. With many ransomware attacks, prestigious banks' and credit card firms' data breaches, andpressarticles have recently gained a lot of attention. To ensure the legitimacy of record keeping, all identities of the coin owners are encrypted. You own it because the currency is decentralized. It has no power over either the government or bank.

Accessibility –

Blockchain is the reason why crypto-currency is worth something. Ease of use is the reason why there is a high demand for crypto-currency. All you need is a mobile screen, an internet connection, and you easily make payments and money transfers to your accounts. There are more than two billion people with access to the Internet who cannot use conventional forms of trade. These people are clued-in to the crypto-currency market.

Global Economies-

Cryptocurrency gives Indians a fantastic chance to catch up to the rest of the world economy, especially the rapidly growing millennial population. An economy driven by bitcoins is inherently decentralized. Obtaining approvals from third parties takes time and money, but all the effort and time invested in discussions will be repaid when purchasing a home or other property.

CRITICISM OF CRYPTOCURRENCY

Money Laundering-

One risk that is quite likely to grow as VC is used is money laundering, particularly with systems that let users swap virtual currency for real money. In 2008, a group of 14 individuals were apprehended by the police in Korea for allegedly stealing $38 million through virtual currency transactions. The organization transferred $38 million from Korea's gold farming industry to a Chinese paper company as purchase money.

Black Market-

Perhaps one of the most significant disadvantages and security concerns with blockchain technology is that it may encourage illegal conduct. On the dark web and grey markets, there are numerous anonymous transactions made with Bitcoin and other cryptocurrencies. For instance, before it was shut down in 2014, the infamous "dark web" portal Silk Road promoted the sale of illegal drugs and other crimes using Bitcoin.

No Refunds –

The idea of such an arbitrator goes against the new philosophy of cryptocurrencies' decentralizing nature. This implies that you have no one to turn to if you are defrauded in a cryptocurrency transaction. Cryptocurrency miners operate as quasi-intermediaries in cryptocurrency transactions, but they are not in charge of mediating disputes between the parties to the transaction. Giving money up front for something you never receive is one example.

Data Loss-

having money in the cloud or a physical data storage unit is preferable than having it in a bag or back pocket because of the nearly uncrackable source code, unbreakable authentication procedures (keys), and adequate security safeguards (which Mt. Gox lacked). Furthermore, users that save all of their data on one cloud provider run the danger of their data being lost if the server is physically broken into or disconnected from the internet. Early proponents of cryptocurrency thought that, with the right safeguards in place, digital alternative currencies would enable people make the transition from traditional cash, which many view as hazardous and unreliable, to digital currency.

CONCLUSION

In conclusion, the review of the relevant literature has offered a detailed description of a number of qualities that are important to the cryptocurrency sector. The dynamics of prices, trends in adoption, variables considered by investors, the classification of bitcoin as an asset, volatility, the repercussions of spillover effects, and the efficiency of the market are some of the aspects that fall under this category. The on-going academic conversation on cryptocurrencies and the effect that having them can have on the state of the world's financial system is enriched by the contributions made by these works, which are essential contributions.

REFERENCES

- https://gscen.shikshamandal.org/wp-content/uploads/2022/sp/BBA20-21/14.pdf

- https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1219&context=etm_fac

- https://www.researchgate.net/publication/376234222_Cryptocurrency_Adoption_and_Its_Implications_A_Literature_Review

- https://www.researchgate.net/publication/373555285_Impact_of_cryptocurrencies_on_financial_markets

- https://www.sciencedirect.com/science/article/pii/S0040162524000404

- https://www.mdpi.com/1911-8074/17/2/58

- https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4119560

EXAMINING THE INFLUENCE OF DIGITALIZATION IN ACADEMIA: AN IN-DEPTH ANALYSIS

Dr.Ritu Tripathi[1], Tasmeen Razia[2] and Megha Pandey[3]

[1]Assistant Professor (Finance), NMIMS- Centre for Distance and Online Learning

[2]Research Scholar, Department of Commerce, University of Lucknow

[3]Senior Accountant, Emblemhealth, New York

ABSTRACT

Digitalisation has become a "buzz" word in the recent times. Digitalization has been transforming and reshaping traditional teaching and learning method. With the adoption of digitalization in academia, it has increased accessibility to information breaking down the geographical barriers. Online learning platforms, virtual classrooms, and digital resources have become an integral component of the academic landscape, providing flexibility for both students and educators. The paper highlights how digitization has affected universities, higher education, the challenges it has brought and how it has become an integral part of today's teaching modalities.

Keywords: Digitalization, Synchronous learning-learning, Academia

Paper type - Research paper

INTRODUCTION

In recent times, with the evolution of information technology, it has led to an era which is commonly termed as the digital age. The term "Digitalization" includes developing digital technologies to transform any business. Thus, digitalization in academia includes usage of digital technologies, internet, mobile devices and software application to impart students in an effective way. These further includes taking online examinations using computers/laptops, online e-materials or e-books etc. (Siemens). The recent growth offers various sources of revenue generation and value creation. It signifies the evolution of a digital era which works towards business transformation. Education is the backbone to the healthy nation. Education plays an essential role in transforming scientific and technological knowledge to professional skills. The transformation of Higher Education is stimulating the formulation of strategic options streamlining policies as per the market dynamics. Thus, it will help the students and the teachers to acquire new skills. (Bryndin,2019).The expansion and technological advancement have opened the new avenues to teach and learn (cf. Jahnke et al., 2017).Many researchers have shown that initiatives in digitalisation have faced challenges in attaining sustainability in educational institutions (Aesaert et al. 2015; Hauge 2014; Håkansson Lindqvist 2015).Implementation of digitalisation in academic education involves the collaboration of many stakeholders comprising students, educationalist, technological partners etc. The usage of digitalisation have been widely accepted in providing systems to detect plagiarism, system for storage of data, data security and administrative solutions. From the teacher's standpoint, digitalization is used effectively for assessing assignment and proving remark directly in the assignment and helping students to re-organize texts. It is helping the teachers to reduce their workload by working with the digitalized tool (Fanny Pettersson,2020)

OBJECTIVES:

- To determine the influence of digitalization in Academia

- To study the challenges of digitalization in Academia

- To discuss the Instances of Digital Evolution in Higher Education

RESEARCH METHODOLOGY

This research is done using secondary data. Reponses from the various sources is taken into account while studying the topic. Sources includes data from books, journal, website, podcast.

LITERATURE REVIEW

Access to Information: Studies have shown that digitization has made it easier to get to academic resources like books, journals, articles, and study databases (Bjork, 2017; Nicholas et al., 2019). Digital libraries and websites have made scholarly knowledge more accessible to everyone, letting researchers from all walks of life read academic books (Morrison, 2018). But there are still worries about differences in who has access to technology and knowledge, especially among disadvantaged groups (Tamburri et al., 2020). Open Access Movement: The open access movement has grown because standard academic publishing models have their flaws (Suber, 2012). Digitalization is a big reason why scholarly study is open to everyone, making it easier for information to reach people all over the world (Swan & Brown, 2020). Open access journals and repositories have become good

alternatives to subscription-based models because they give researchers' work more exposure and effect (Molteni, 2019). But there are still problems with long-term funding methods and quality control in open access publishing (Bjork & Solomon, 2015). Online Learning: The rise of online learning tools has changed the face of higher education by giving students all over the world flexible and easy ways to learn (Means et al., 2019). Massive Open Online Courses (MOOCs), blended learning models, and virtual classrooms have all been made possible by digitization, which has changed the way standard classes are taught (Daniel, 2018). There is evidence that online learning can get students more involved, help them learn better, and give more people access to education. However, there are still concerns about problems of fairness, the quality of the teaching, and teachers' workloads (Hodges et al., 2020). Collaborative study: Digital tools and platforms have made it easier for academics to work together on research projects, even if they are in different places (Veletsianos & Kimmons, 2016). Scholarly communication and teamwork have changed because of virtual research settings, collaborative writing platforms, and social networking sites (Kwok et al., 2019). But problems like sharing data, figuring out who did what, and talking to each other are still making it hard to work together effectively in digital spaces (Borgman, 2015). Digital Scholarship: The rise of digital scholarship has changed the way academic study is done by introducing new ways to create, share, and evaluate knowledge (Weller, 2015). Digital humanities, computational social science, and data-driven research methods have made it easier for scholars to do more study (Borgman et al., 2018). Digital scholarship projects use digital tools, methods, and platforms to answer hard research questions and connect with a wide range of people (Spiro, 2012). However, problems still exist in academia when it comes to the long-term viability, preservation, and recognition of digital research (Fitzpatrick, 2011). Challenges and Ethical Considerations: Going digital in academia comes with a lot of problems and ethical issues, such as privacy, data protection, intellectual property rights, and learning how to use technology (Baruchson-Arbib, 2017). It can be hard for scholars and institutions to figure out how to balance the benefits of digital technologies with worries about fairness, accountability, and social responsibility (Floridi, 2018). Also, the speed with which technology is changing makes people wonder what the moral effects of new technologies like AI, machine learning, and big data analytics will be (Cath et al., 2018). Overall, the literature review shows how digitalization has the ability to change academia, but it also shows how important it is to think carefully about its problems and moral aspects. More study should be done on these topics in the future so that evidence-based plans can be made for using digital technologies to their full potential while reducing their risks and unintended effects.

Objectives of Digital Transformation

- **Augments student's learning experience:** Digital transformation helps in augmenting student's /learner experience. The three major bifurcation of digital learning comprise of Face-to-face courses, Hybrid/blended courses and Digital/Online courses. The digital models work like offline mode. Few models are:

1. **Oneself**: In this mode, students learn by themselves through the resources that are available including platforms, educational videos, podcast, simulations, quizzes and test. It comprises of TEDx, YouTube videos, Google earth etc.

2. **One -to-One tool**: Web based conference platform comprising of Zoom helps to interact between mentor and students.

3. **One to Multiple**: Social network, blogs, discussion forum, e-mails, mailing list helps the learners to instruct and interact with a larger group.

- **Efficiency Enhancement:** Educational institutions are adopting and implementing analytics to manage their operational work comprising of unpredictable enrolment, admission decision, academic planning and managing recruitment cost. Predictive analytics are used to forecast events and prescribe solutions to the problems.

- **Cost Cutting:** Higher education costs can be reduced by using educational technology in a number of ways, such as moving campus IT systems to the cloud, substituting e-learning for qualified teachers, gradually replacing textbooks with digital information, and replacing expensive equipment with VR or AR resources. While some solutions save time by enabling educators to speed and adapt their training, apps for instructors free up their time to work on more significant projects.

- **Digital Technology:** The learners can use various digital technologies to engage students with learning solution. Learning technologies such as Synchronous technologies, Multimedia applications, Learning management systems, Emerging technologies, Cloud-based technologies and Collaborative applications are used. (Florence Martin and Kui Xie,2022)

- **Usage of *Learning management systems:*** The usage of LMS is used effectively by teachers and learners to bridge the gap between them. This can be done through collaboration and vibrant knowledge collection. It has feature which benefits both online and face to face students. It has become an important teaching tool. In adverse scenario, to the tools proves to be an effective one. LMS focusses on Moodle, which is an open-source learning management system.

- ***Synchronous technologies*:** Synchronous learning helps to experience helps us to transform traditional teaching model to advanced learning model. This technology helps in peer-to-peer interaction thus increasing engagement rate. Synchronous technologies help in online meeting. It includes functionalities such as text/chat, polls, whiteboards, audio and video, breakout rooms, screen sharing which will augment the online classroom experience.

- **Multimedia Software:** Multimedia comprises of video, audio, images, animations and other interactive elements that keep the learners engaged. Some multimedia software comes with purchasing options while few have open access. It can be used to capture /record orientations, micro lectures etc. which will help the learners. The interactive elements create immersive learning environment that capture learner's experience. With the help of graphics, animations - educational contents can be made interesting and memorable. These help diverse range of learners and helps the learners engaged.

- **Cloud-based Application:** Cloud based applications are widely used in universities and colleges so that files are stored well and can access these data from anywhere in the world. Cloud-based textbooks can be used as a cost-effective learning tool for the students. This enables the low-income group students to utilise and access the content easily with the equivalent quality. Also, the e-content can be updated easily unlike offline contents. With the development of SaaS model, it has made low subscription possible with affordability and high-quality content. (Arun Goyal,2017)

- **Teaching Approach:** Various teaching modalities can be used in universities/colleges. Common teaching modality are used comprising of hybrid/blended learning, Campus technology-based learning, Synchronous, Bichronous online sessions. Technology augments the learning experience. Hybrid learning model ensures flexibility to the students to acquire knowledge online as well as offline. Bichronous sessions are useful to the learners since they can enhance their learning experience via a through asynchronous and synchronous sessions.(Florence Martin and Kui Xie,2022)

- **Support services:** With the adoption of digitalisation in academics, the need for support services to the learners have increased to various folds. Universities are hiring technology specialists and instructional designers since they are expertise in their areas and can design different modalities for different courses. Support services including registration, consultations are also required for digital learning and teaching. Teaching faculties should be motivated and incentivised for being innovators and adopters in digital learning.

- **Planning and formulation of policies:** Universities /educational institutions should set up for digital teaching and learning. These practices of adopting digitalization will help the leaders in decision making and work efficiently.

In the below figure it depicts that how Digital maturity model will grow with
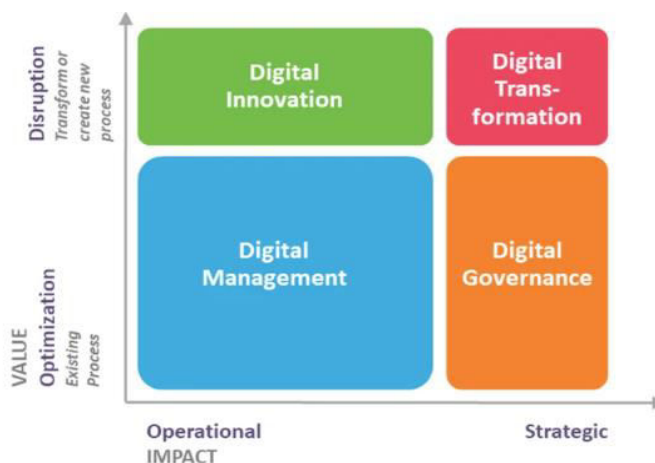
Digital Maturity Model for Universities (md4u) grid (Molina-Carmona et al., 2019)

- **Learner Advantage:** Digital knowledge and skill have become need of an hour. Internet access, Time management, self-regulation, community building, instructional content are important modalities that would provide the learners with opportunity. The instructor should use video, audio, podcast, discussion forum to engage students to augment digital learning experience.

Instances/Examples of Digital Evolution in Higher Education

- **Virtual Learning:** During COVID, it was witnessed worldwide that Virtual learning became an integral part of the learners. Country like China in order to cater 30 million students across 3,000 universities broadcasted lessons all day for the learners to get equipped to the subjects. Internet, mobile apps across provided free courses during the COVID period. These includes small private online course (SPOCs), Massive open online course (MOOC)and virtual labs at undergraduate level.

- **Widely used Apps:** Many Universities, educational institutions worldwide are using apps to manage their day-to-day operations like student record management, empowering Universities/learners by SIS (Student information systems), Blackboard App, LMS, Duolingo, MindMeister, Google Drive, Evernote etc. (Leah Zitter,2022)

- **Digital Payment Apps**: Students uses ApplePay, IoT smart kiosks are other digital apps effectively for their convenience. There are various apps that helps the students to resolve their day-to-day activities with ease. With these apps one can order their meals, can purchase book, can register themselves for the classes, schedule appointments etc.

- **AR/VR:** The technology has paved the way to success for many students with special needs in higher education. With the advent of Google Chromecast, it has made convenient for the visually impaired individual to enlarge the images. There are other resources like VR Screen readers that helps the user in many ways. Likewise, 2D barcode camera phone scanning, Google Glass apps, iGYM, Gamification, Immersive learning have helped students in many folds. (Leah Zitter,2022)

- **Online libraries/Chatbots:** Many universities across world (more than 4000 academic libraries) uses chatbots to help leaders to access library resources, navigate its database and locate the requisite information whenever needed. The university of Oklahoma is one such university which provides access to the learners 24/7. (Leah Zitter,2022)

- **Types of eLearning:** Digital e-learning are of various forms comprising of fixed learning vs adaptive learning, Asynchronous eLearning vs. synchronous eLearning, Interactive, collaborative eLearning vs individual eLearning, Remote learning v. online learning, eLearning vs. digital learning, Virtual classes vs. mobile learning, Social vs adaptive learning.

CHALLENGES OF DIGITAL TRANSFORMATION IN ACADEMIA

- **Inequalities in Access:** Underprivileged areas and less developed parts of the world still have worse access to technology and the internet. Even though digitalization has made more educational materials and information available to more people. Academic possibilities for underrepresented groups may be further limited by this digital divide, which might worsen preexisting educational disparities. Due to the abundance of information available online, it is difficult to maintain standards of quality and trustworthiness in the data presented. Some worry that the knowledge is not accurate or valid because academics have to go through mountains of digital content to find reliable sources.

- **Cybersecurity Threats:** Data breaches, hacking, and virus attacks are some of the cybersecurity threats that digitalization brings. Protecting intellectual property, student records, research results, and other sensitive information from unauthorized access or disclosure in digital settings is the responsibility of educational institutions.

- **Concerns Regarding Intellectual Property:** Plagiarism, copyright infringement, and the unlawful sharing of scholarly work are only a few of the intellectual property rights issues that digitalization brings to light. Intellectual property protection, open access, and academic freedom are all important values that scholars and organisations must work to balance.

- **Enabling digitalization in academia: It** is a strong technology infrastructure, which must be upgraded and maintained. While digital technologies have the potential to revolutionize teaching, learning, and research, many institutions are unable to fully embrace them due to issues including limited IT support, slow bandwidth, and obsolete technology.

- **The ability to effectively use digital tools**, platforms, and information is a must for both students and teachers in today's fast-paced technology world. Many people, however, aren't tech-savvy enough to fully participate in today's increasingly digitalized classrooms.

- **Modification in pedagogical strategies:** Faculty members must modify their pedagogical strategies and methods of instruction in order to incorporate digital technologies into their teaching activities. Teachers may find it difficult to gauge students' progress towards course goals, encourage their active engagement in the learning process, and provide interesting and informative online lessons.

- **Hindrance to Academics, Administrators:** When academics, administrators, and other stakeholders are resistant to change, it can hinder efforts to digitize academic processes and practices. There may be some aversion to adopting new technology, worries about the decline of old academic ideals, and a general lack of technical knowledge that could slow down the acceptance of digital advancements in academia.

- **The implementation of digitalization:** Projects necessitates substantial financial outlays for things like software licenses, training programs, technical support services, and technological infrastructure. There may be a lack of adequate funding for digitization projects at academic institutions, especially those with fewer resources.

- **Concerns about Data Privacy, Academic Integrity:** Online Surveillance and Responsible Technology usages are raised by Digitalization in the Academic Setting. For these reasons, and to guarantee that academic activities conducted in digital settings are ethical, institutions should establish transparent regulations and procedures.

SUGGESTIONS

- **Foster Equality of Access**: Put money into infrastructure: Give underprivileged areas and developing countries better access to dependable internet and other technical resources.Provide financial aid: Help low-income students and teachers by giving them financial aid in the form of subsidies or discounts on technology and internet services. For students who do not have access to a computer or high-speed internet, one option is to create educational platforms and materials that are mobile-friendly.

- **Improve Quality Control:** Educate stakeholders: Train teachers and students to think critically about what they read online and how to recognise reliable sources. - Introduce peer review: Promote the use of peer review procedures to guarantee the quality and correctness of digital content, including online journals and instructional materials. Encourage cooperation amongst different academic fields: Assist researchers from various fields in working together to ensure the reliability of digital research.

- **Reduce the Potential for Cyberattacks:** Reinforce safety protocols: To safeguard confidential information and school assets, set up stringent cybersecurity protocols including firewalls, antivirus software, and encryption.

- **Provide Instruction:** Educate staff, students, and faculty on cybersecurity dangers and how to protect digital assets through training programs. Engage in expert collaboration: Collaborate with groups and individuals specializing in cybersecurity to evaluate and strengthen educational institutions' cybersecurity measures.

- **Develop transparent policies to address concerns intellectual property:** To encourage moral behaviour in digital scholarship, set up transparent rules and regulations on copyright compliance, attribution procedures, and intellectual property rights. Inform relevant parties: Assist teachers and students in understanding their legal obligations and rights in relation to intellectual property in online spaces by providing them with relevant training and materials.

- **Back the Cause of Open Access:** Promote the use of open access publication strategies and repositories to safeguard intellectual property rights while expanding the reach of scholarly research.

- **Invest in Technological Infrastructure**: Set aside money: Give digitalization projects priority when allocating funds for updates to technology infrastructure, which includes software, networking gear, and IT support services.

- **Usage of Alliances:** Funding and resources for technological infrastructure initiatives can be obtained through collaboration with technology companies, government agencies, and charitable organisations. Scalable solutions should be implemented. In order to keep up with the ever-changing digital demands of academia, it is important to implement scalable technological solutions.

- **Stimulate Competence in Digital Literacy**: Incorporating digital literacy into educational programs will help the children learn and succeed. This can be done by integrating digital literacy into lesson plans across grade levels.

- **Programme for Training are Available:** Help teachers, staff, and students become more proficient users of digital resources by organizing workshops and programs to teach digital literacy. Make available tools for assistance: To aid people in acquiring and honing their digital literacy abilities, set up online tutorials, help desks, and support forums.

- **Adopt an Adaptive Approach to Teaching:** Enhance faculty members' digital pedagogy and instructional design skills through professional development opportunities and incentives.

- **Collaborative Learning Communities:** Establish networks of educators who may discuss and share ideas for improving the classroom experience through the use of technology.

- **Assist with Instruction:** Give teachers the tools they need to create and deliver engaging digital lessons by providing services and resources for instructional design.

- **Encourage a Spirit of Creativity:** Deal with People Who Are Opposed to Change, recognizing and rewarding creative methods of instruction, research, and administrative procedures can help foster an environment where new ideas and experiments thrive in academia.

- **Make the Advantages Known**: Get the word out to stakeholders about how digitalization may help, highlighting how technology can make teaching more effective, research better, and more educational possibilities accessible.

- **Make Available Assistance and Materials:** Help the professors and staff embrace new digital practices and technology by providing them with training, technical support, and incentives.

- **Sufficient Funding:** Call for more money: Get more money from the government, institutional budgets, and charitable contributions to support digitalization projects at universities. Invest in digitalization projects with the greatest potential to promote academic goals, improve student learning outcomes, and support research excellence. Prioritise these projects.

- **Look into other Places to get Money:** Supplement institutional support for digitization efforts with alternative funding sources like public-private partnerships, crowdfunding campaigns, and corporate sponsorships.

- **Preserve Moral Principles:** Formulate moral principles: Data privacy, academic integrity, and the responsible use of technology are only a few of the concerns that should be addressed by establishing transparent ethical norms and standards for digital research, publishing, and academic behaviour.

- **Offer Courses on Ethical Behaviour:** To raise consciousness of ethical challenges and encourage moral decision-making in online settings, provide seminars and programs to educate students, teachers, and staff on the topic.

- **Ensure Observance:** Establish ethical review boards, institutional regulations, and procedures for disciplinary action against unethical behaviour as means to oversee and ensure adherence to ethical norms. Academic institutions can meet the challenges of digitalization and take advantage of its opportunities to improve digital teaching, learning, and research by applying these proposals.

CONCLUSION
The benefits and the constraints brought by digital revolution have a major impact on academia, opening up new vistas for research, teaching, and collaboration. Differences in access to information and technology, problems with quality control, threats to cybersecurity, worries about intellectual property, limitations in technological infrastructure, gaps in digital literacy, difficulties in adapting teaching methods, opposition to change, limited resources, and ethical considerations are all important obstacles. There are a number of proposed solutions to these problems, such as increasing accessibility and inclusion, improving quality assurance procedures, fortifying cybersecurity, fixing technological infrastructure, increasing digital literacy, encouraging pedagogical innovation, providing enough funding, maintaining ethical standards, and addressing intellectual property issues. Following these recommendations will help educational institutions take advantage of digitalization's revolutionary power to improve 21st-century pedagogy, student engagement, faculty research and faculty-student collaboration, which will contribute to the growth of the global knowledge economy.

REFERENCES

- Bryndin E. (2019). Creative innovative higher education of researchers with flexible skills and synergy of cooperation. Contemporary Research in Education and English Language Teaching 1, 1–6. doi: 10.33094/26410230.2019.11.1.6

- Jahnke, I., Bergström, P., Mårell-Olsson, E., Häll, L., & Swapna, K. (2017). Digital didactical designs as research framework – iPad integration in Nordic schools. Computers & Education, 113, 1–15

- Aesaert, K., van Braak, J., Van Nijlen, D., & Vanderlinde, R. (2015). Primary school pupils' ICTcompetences: Extensive model and scale development. Computers & Education, 81, 326–334

- Fanny Pettersson (2020). Understanding digitalization and educational change in school by means of activity theory and the levels of learning concept, Volume 26, Pages 187-204

- Central Institute of Education Technology (2024) website

- Arun Goyal (2017).8 Benefits Of Adopting cloud-Based Applications in Education.

- Florence Martin and Kui Xie (2022). Digital Transformation in Higher Education: 7 Areas for Enhancing Digital Learning

- Antonio Fernández,Beatriz Gómez, Kleona Binjaku & Elinda Kajo Meçe (2023).Digital transformation initiatives in higher education institutions: A multivocal literature review, Volume 28,pages 12351-12382

- Selwyn, N. (2010). The digital divide: A social issue. New York: Oxford University Press.

- Warschauer, M. (2003). Technology and social inclusion: Rethinking the digital divide. Cambridge, MA: MIT Press.

- Weller, M. (2011). The digital scholar: How technology is transforming scholarly practice. London: Bloomsbury Academic.

- Bawden, D., & Robinson, L. (2012). Introduction to information science. London: Facet Publishing. McQuade, S. C. (2012). Understanding and managing cybersecurity: Risk assessment and governance. New York: Auerbach Publications.

- Solove, D. J. (2013). Understanding privacy. Cambridge, MA: Harvard University Press.

- Boyle, J. (2008). The public domain: Enclosing the commons of the mind. New Haven, CT: Yale University Press.

- Samuelson, P. (2011). Intellectual property and digital content. The American Economic Review, 100(2), 15-18.

- Greenhow, C., & Reifman, J. (2009). Engaging youth in a digital age. Charlotte, NC: Information Age Publishing.

- Bates, A. W., & Sangra, A. (2011). Managing technology in higher education: Strategies for transforming teaching and learning. San Francisco, CA: Jossey-Bass.

- Jenkins, H., Clinton, K., Purushotma, R., Robison, A. J., & Weigel, M. (2006). Confronting the challenges of participatory culture: Media education for the 21st century. Cambridge, MA: MIT Press.

- Gilster, P. (1997). Digital literacy. New York: Wiley Computer Publishing.

- Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge? Contemporary Issues in Technology and Teacher Education, 9(1), 60-70.

- Siemens, G. (2012). MOOCs are really a platform. eLearnspace.

- Fullan, M. (2001). Leading in a culture of change. San Francisco, CA: Jossey-Bass.

- Christensen, C. M., & Eyring, H. J. (2011). The innovative university: Changing the DNA of higher education from the inside out. San Francisco, CA: Jossey-Bass.

- Ehlers, U. D. (Ed.). (2011). Understanding the digital divide. Hershey, PA: IGI Global.

- Lebeau, Y. (2006). Financing higher education and economic development in East Asia. Paris: UNESCO.

- Introna, L. D., & Nissenbaum, H. (2000). Shaping the web: Why the politics of search engines matters. The Information Society, 16(3), 169-185.

- Floridi, L. (2014). The 4th revolution: How the infosphere is reshaping human reality. Oxford: Oxford University Press.

A STUDY ON MULTIPLE CERTIFICATION COURSES AVAILABLE TO AN COMMERCE UNDERGRADUATE STUDENT AND THEIR VIEWS ON THEM

Radha Rahul Baheti
Student, Usha Pravin Gandhi School of Arts, Science and Commerce

ABSTRACT
This study examines the variety of certificate courses offered to college students in business disciplines and explores students' understanding of these courses. As certifications become more important in the business world, it is important to understand graduate students' perspectives on various certification options. Through interviews and qualitative observations, this study examined business students' understanding, preferences, and perceived value of various certifications. This study aims to determine the types of certificates students are interested in, the factors affecting their choices, and their expectations regarding the results of these certificates. Additionally, the study explores the issues and challenges students face when entering and completing various certifications. The results of this study lead to a deeper understanding of the role of accreditation in business graduates and career development, providing informationto schools, policy makers, in creating and delivering assurance according to public needs.

INTRODUCTION
In today's ever-evolving business environment, graduate students studying business face the critical challenge of acquiring the skills and qualifications that will enhance their success. In order to meet this need, many students turn to various certificate programs to support their education and differentiate themselves in their field. The purpose of this study is to explore the various certification options available to graduate business students and describe their perspectives, motivations, and associated challenges.

Economics covers a wide range of industries, including business, finance, marketing, management and international business. There are a variety of certifications offered by professional organizations, trade associations, and schools in each field. These certificates cover a wide range of skills, such as financial analysis, digital marketing, project management, and supply chain management, and meet a wide range of interests and studies of undergraduate business students.

The decision to choose more than one certification is often influenced by many factors, including personal preferences, career goals, and business needs. Students may seek certification to gain expertise, prove their knowledge in a particular field, or increase their marketability to employers. Additionally, the certificate gives students the opportunity to demonstrate their commitment to continuous learning and professional development, qualities that are highly valued in the business world today.

Despite the benefits of many accreditations, business graduates may face many challenges when entering the certification field. Factors such as the cost of certification, time constraints, and the perceived value of a certification compared to a traditional degree can determine which certification to pursue. Additionally, the expansion of certification options and the lack of standards to evaluate their quality and accuracy can create problems for students to make informed choices.

RESEARCH METHODOLOGY:
This study used a mixed methods approach, including qualitative interviews and quantitative research. Undergraduate business students were selected as participants. Qualitative interviews explored participants' perceptions of various certification programs, while quantitative studies collected information about perceptions, preferences, and knowledge of the benefits of recognition.

LIMITATION:
One of the research paper's limitations is that its usage of a particular student demographic may have led to sampling bias, which would have limited how broadly the findings could be applied. Furthermore, depending solely on self-reported data could result in response bias, which would reduce the accuracy of the findings. It's possible that time restrictions hindered a thorough investigation of some of the elements affecting how students view certification programmes. Finally, the study may have benefited from more context if it had looked more closely at outside variables like industry developments and prevailing economic situations.

RESEARCH OBJECTIVES:
1. Check out the various certificate programs available to undergraduate business students.

2. Discuss the level of knowledge of undergraduate business students about various certificate programs.

3. Discover the motivations and reasons why undergraduate business students decide to pursue various certificate programs.

4. Examining the impact of factors such as cost, time commitment and perceived value on students' job perceptions and interests across multiple accreditations.

Various Certification Programs:
Graduate business students can choose from a variety of certifications, each providing specific knowledge and skills appropriate to their career interests. The Chartered Financial Analyst (CFA) option is widely recognized for its focus on investment management, financial analysis and ethics, making it ideal for students looking to find employment in finance. Similarly, the Certified Management Accountant (CMA) certification provides students with knowledge in financial management, strategic planning, and decision-making, preparing them for leadership in the financial industry. Certified Public Accountancy provides rigorous training in the fundamentals of accounting, auditing and financial reporting, leading to a globally recognized professional designation. Additionally, Association of Chartered Certified Accountants (ACCA) qualifications attract students who want to become finance professionals by offering quality training in accounting, auditing and financial reporting. For those interested in risk management and insurance, the Society of Actuaries Fellowship (FSA) qualifications provide specialized training in actuarial research, while the Certified Actuarial Analyst (CAA) certification provides a foundation in quantitative analysis and risk modelling. Additionally, certificate programs in marketing, such as the Certificate in Digital Marketing or the Professional Certified Marketer (PCM) designation, equip students with marketing research, marketing and digital advertising skills, preparing them for jobs in marketing and advertising agencies. Through a variety of certificate programs, graduate business students have the opportunity to tailor their education to meet their career goals and remain competitive in the industry.

Knowledge of Students about Various Certification Programs:
Undergraduate business students' knowledge of various certificate programs varies and is influenced by factors such as academic background, personal interests, and career goals. While some students may have a good understanding of popular certifications such as Certified Financial Analyst (CFA) or Certified Management Accountant (CMA), other students may have a limited understanding of the methods, programs, and their benefits. Factors contributing to differences in knowledge levels include the availability of information and resources, the importance of certification in academic programs, and guidance provided by institutions, articles, and career counsellors.

Additionally, students' experiences, such as internships, work experience, or external study, may also influence their understanding of specific certifications related to their field of interest. Those interested in networking, professional networking, or business networking will have a better understanding of certification options and career opportunities. .

Overall, the experiences of undergraduate business students in various certificate programs are multifaceted and depend on a combination of education, experience, and knowledge. Increased knowledge and understanding of certification may require training plans, career counselling and industry partnerships to ensure students have the information necessary to make informed decisions about their development studies and work.

The Motivation and Reason why Students Decide to Choose Various Certification Programs:
Students choose various certificate programs for a variety of reasons, primarily their career goals, personal interests, and skills and knowledge needs. One of the main motivations is the quest to improve performance and increase productivity. Certifications are often considered important credentials that can enhance a student's career and open the door to new jobs, promotions, and higher salaries. Additionally, the certificate gives students the opportunity to differentiate themselves in the competitive market and demonstrate their passion for professional development. Students can also choose certifications to support their studies and gain specific knowledge.

Business specific skills that may not always be included in the programs studied. The certificate provides hands-on, hands-on training that allows students to develop skills in specific areas such as finance, business, project management or technology output. Additionally, personal interests and hobbies often lead students to pursue certification in areas they are passionate about or interested in exploring further. Whether it is an interest in new technologies, a passion for sustainability, or a desire to gain a deeper understanding in a particular field, certifications provide students with opportunities to satisfy their curiosity and expand their knowledge.

Other important factors such as economic conditions, workplace preferences and good friends may also play a role in a student's success. Learning about current business needs and future growth opportunities can inform students' options and help them complete certification with a changed mindset.

In general, students' motivations for choosing various certificate programs are diverse and related to career goals, identity interests, reflections, and external influences. By earning certificates, students aim to improve their skills, expand their career opportunities, and ultimately achieve their career goals.

The Impact of Factors Kept in Mind while Choosing Certification Programs:
The impact of factors such as cost, time commitment, and perceived value on student perceptions and interest in careers across multiple certifications are important, beneficial, and many things. First, the costs associated with obtaining certification can impact students' decision-making and thinking processes. High costs can deter students from pursuing certain certifications, especially if they find they receive little investment or have limited funds. Conversely, a certification with a lower cost or higher visibility may attract more students, especially if they believe the certification will improve their career and employment prospects.

Second, the time commitment required to complete the certificate may also impact students' content and career interests. Students may be denied time to pursue a certification that requires too much study or preparation, especially if they are evaluating classes, extracurricular activities, or working part-time. Conversely, certificates that offer flexible study options or shorter durations may be more attractive to students because they can be complemented with other commitments without major disruptions to their time.

Perceived value is another factor that affects students' perceptions of performance and satisfaction with multiple certifications. Certificates that are well earned in a particular industry or known to be useful for employment are often considered more valuable by students. Conversely, certifications recognized in a job or profession may be viewed with suspicion or indifference. As a result, students are more likely to pursue certifications that align with their career goals and provide good job opportunities, advancement, and financial opportunities.

Overall, the impact of factors such as cost, time commitment, and perceived value of various certifications on the attitudes and behaviours of students willing to share demonstrates the importance of carefully examining the products and benefits associated with each certification. By considering these factors, students can make informed decisions that meet their career needs and increase their chances of success in the marketplace.
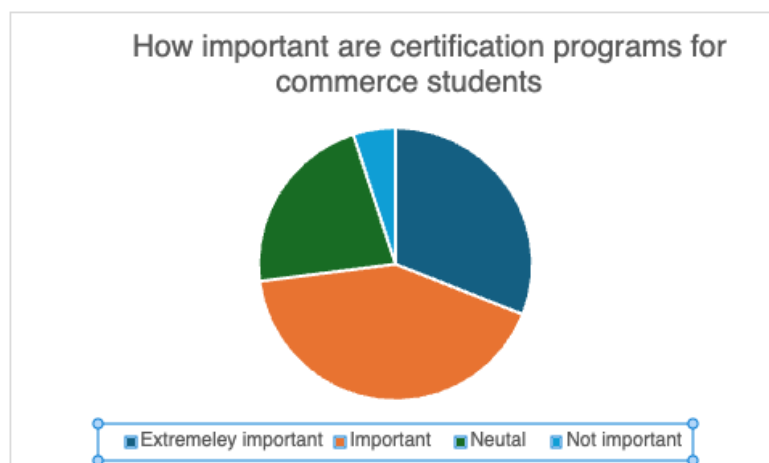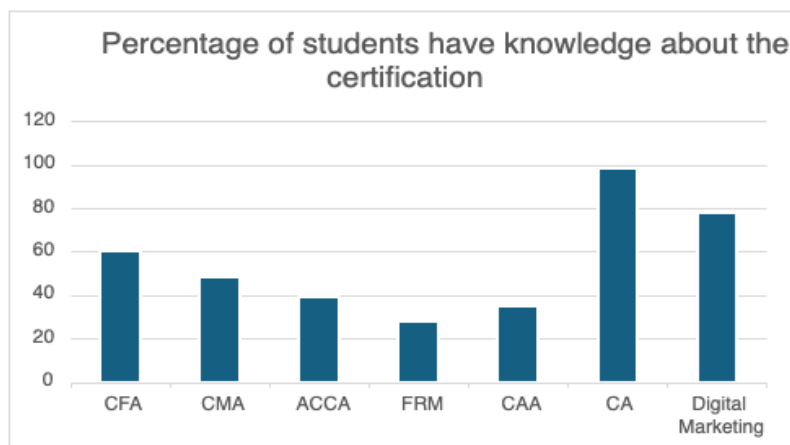
CONCLUSION

Examining and understanding the various accreditations available to graduate business students provides valuable insight into the changing nature of accreditation in higher education. By examining students' knowledge, motivation, and attitudes, several key findings emerged that provide a deeper understanding of the role and impact of professional recognition programs.

First of all, this study offers a variety of possibilities for certifications suitable for various disciplines in the business world, including finance, management, business and project management. These courses give students the opportunity to gain skills, develop their careers and stand out in the competitive market.

Second, students' motivations for obtaining certification are multifaceted; This includes career and professional development, as well as personal interests and business needs. The certificate is considered an important certificate that equips students with knowledge and skills, can open doors to new opportunities and increase earning potential.

It has also been found that factors such as cost, time commitment and perceived quality affect students' decisions regarding certification. Students carefully weigh the pros and cons of certification, considering affordability, impact on career goals, and potential return on investment.

Overall, this study highlights the importance of certification in undergraduate business education, providing students with valuable opportunities for professional development and career advancement. But he also emphasizes that institutions and policymakers need to address issues such as accessibility, affordability and business reforms to ensure certifications remain relevant and deliver results for students in financial transition.

BIBLIOGRAPHY

- Bamber, E. M., & Spencer, M. L. (2019). The Value of Professional Certification in Accounting: A Literature Review. Journal of Accounting Education, 46, 100432.

- Chartered Institute of Management Accountants. (n.d.). CIMA Professional Qualification. Retrieved from https://www.cimaglobal.com/Starting-CIMA/Starting-CIMA/Getting-Started-with-CIMA/

- Association of Chartered Certified Accountants. (n.d.). About ACCA. Retrieved from https://www.accaglobal.com/us/en/about-us.html

- The Institute of Internal Auditors. (n.d.). Certified Internal Auditor (CIA) Certification. Retrieved from https://na.theiia.org/certification/CIA-Certification/Pages/default.aspx

- Project Management Institute. (n.d.). About the PMP. Retrieved from https://www.pmi.org/certifications/project-management-pmp

- Six Sigma Certification. (n.d.). What is Six Sigma Certification? Retrieved from https://www.sixsigmaonline.org/six-sigma-training-certification-information/what-is-six-sigma-certification/

- Digital Marketing Institute. (n.d.). Professional Diploma in Digital Marketing. Retrieved from https://digitalmarketinginstitute.com/students/courses/professional-diploma-in-digital-marketing

- Institute of Management Accountants. (n.d.). CMA Certification. Retrieved from https://www.imanet.org/cma-certification

IMPACT OF ROBO ADVISORS ON TRADITIONAL INVESTMENTMANAGEMENT

Janvi Kapoor

Student, Third Year, BMS Usha Pravin Gandhi College of Arts, Science and Commerce

ABSTRACT

The investing sector is always changing due to technological improvements. This study reviews the present state of research on the connections between individual investor behavioural biases and the phenomena of robot advisers, to offer insights forfuture research agendas. A quantitative research approach was used to review the literature on the Impact of robot advisers on Investment Management. The main conclusions show that customers can make less biased and more informed judgementswith the aid of Robo-advisors. On the other hand, investors' automated system operations are activated by robot advisors.

Keywords: Robo Advisor, Investment decision, Asset Under management

INTRODUCTION

A Robo-advisor is a digital platform that offers investing and financial planning services that are automated and algorithmic, with little to no human oversight. After evaluating your time horizon, financial goals, and risk tolerance using a series of questionnaires, they usually put together a diverse portfolio of assets that meet your requirements, such as exchange-traded funds (ETFs). For first-time investors or those who want a hands-off approach to investing, Robo-advisors are frequently an excellent choice. Because their fees typically fall lower than those of traditional financial counsellors, they can serve as a more affordable option. With the advent of Robo-advisors and automated online services that employ computer algorithms to oversee customer investment portfolios as well as offer financial advice, the demand for financial advice has seen an enormous shift in the past ten years.

The Financial Industry Regulatory Authority's (FINRA) Executive Vice President for Regulatory Affairs, Susan Axelrod, raised a number of concerns about Robo-advisors, which she compares to digital services or digital investment advice: We must question ourselves, what role will financial professionals play in offering investment advice when combined with digital services? To what extent will investors rely on advice from digital investors in the firstplace? What amount of information can software learn about a user? Is it feasible for software to incorporate the expertise, know-how, and services offered by morally and ethically sound financial professionals? Is the software capable of offering reliable individual advice, particularly to clients with more intricate needs The rise in assets under management among Robo-advisory businesses is one indicator of the value that Robo-advisors provide. A. T. Kearney (2015) released research indicating that in 2016, Robo-advisory firms controlled assets under management valued at more than $300 billion. While little is known about the demographics that use Robo-advisory services, almostall signs point to younger consumers (under 35) who are reasonably knowledgeable about personal and household financial matters as adopters of fully automated systems, while non-users are typically older consumers who are approaching or in retirement. It is assumed that those who stay away from Robo-advisory services are more conservative (A. T. Kearney,2015). If this general assessment is correct, then less seasoned and cautious customers willingness to provide their assets and information to Robo-advisors will prove to be a key factor in the future growth of Robo-advisory services. If this happens, businesses that function as traditional asset managers and businesses that offer direct, face-to-face financialplanning assistance may experience significant revenue disruptions (Regan, 2015).

Robo Advisory Market Size, By Provider, 2018 - 2028

Source: www.kbvresearch.com
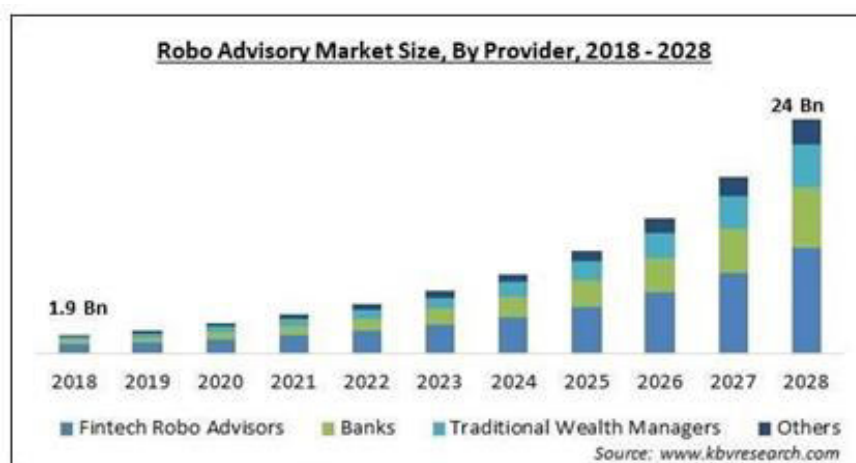
The size of the global robot advisory market was estimated at USD 4.13 billion in 2021 and is expected to increase at a compound annual growth rate (CAGR) of 29.7% from USD 5.22 billion in 2022 to USD 41.83 billion by 2030.

REVIEW OF LITERATURE

Marszk and Lechman, 2018

The financial services industry is one of those economic sectors that is facing serious difficulties, which means that this revolution has the potential to present new opportunities aswell as dynamic risk concerns. However, the financial services industry is embracing and disseminating technology at a breakneck speed, leading to a transition from traditional financial products to more inventive ones that are being created.

Babalos et al. 2009

Robo advisors and conventional funds are not the same, particularly in terms of how they are structured for expenses. In this context, Babalos et al. (2009) emphasised the importance of the mutual fund expense burden on the financial institutions' performance. They made the argument that a key factor influencing the flow of funds is the expense structure.

Kim and Huxley (2016)

Even though the Robo-advisory sector is expanding quickly, there hasn't been much scholarlyresearch up to this point. In his paper, Fein (2015) refers to robot advisers as "smart money machines," citing their low cost, speed, and intelligence. An overview of the benefits and drawbacks of Robo-advising in the future is given in the article, along with an analysis of a low-cost, reliable model that might be used in conjunction with human advisors.

Statement of the problem:

The research paper is aimed at understanding the impact of Robo Advisors on traditional investment management, as well as understanding the growth of Robo Advisors.

Research Methodology:

The research is based on secondary data sources.

Research Methods:

a) Secondary Data- From articles, websites, newspapers, journals, and research papers.

b) Primary Data- No primary data is used as the scope of research is limited.

Research Objectives:

1. Analyse and identify market growth region-wise

2. Analyse regional penetration and asset under management per user

3. Analysis of number of users using Robo advisors

Data Analysis

ASSET UNDER MANAGEMENT OF ROBO ADVISORS REGION BY REGIONANALYSIS
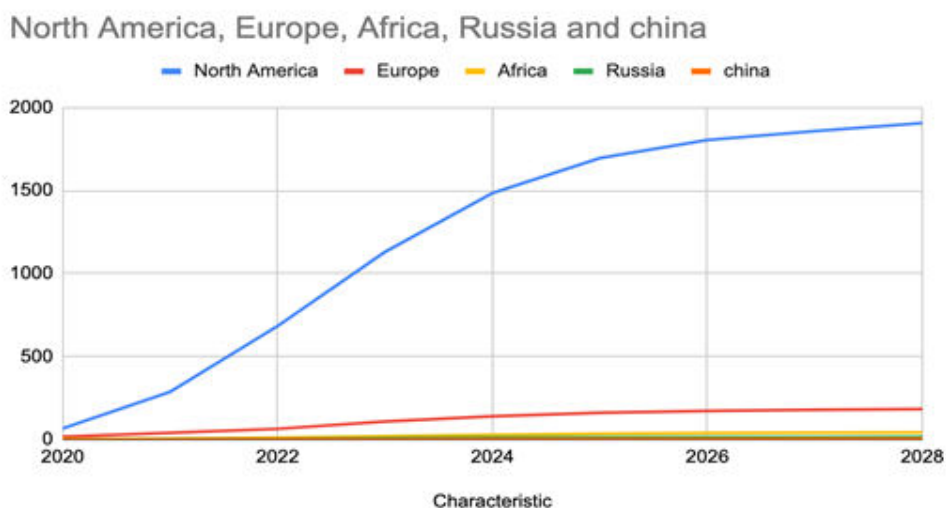
Source- Statista

Between 2020 and 2028, the AUM (Assets Under Management) for robo-advisors increased significantly in all regions.Even though there have been negative percentage changes since 2020, this is probably because of the year's high base growth.All regions continue to see good and significant absolute increase in AUM. North America has the biggest AUM, but it also has the highest percentage growth fall rate. This points to a market that is maturing and has a loyal user base. Europe's high absolute growth is accompanied by a notable fall in percentage change, much like North America. This suggests a market that is continuing to grow and has potential.China, Russia, and Africa have the sharpest percentage growth drops; however, this is probably because their 2020 baselines are lower. They continue to show significant absolute growth, indicating highly promising emerging markets.

ASSET UNDER MANAGEMENT PER USER ANALYSIS
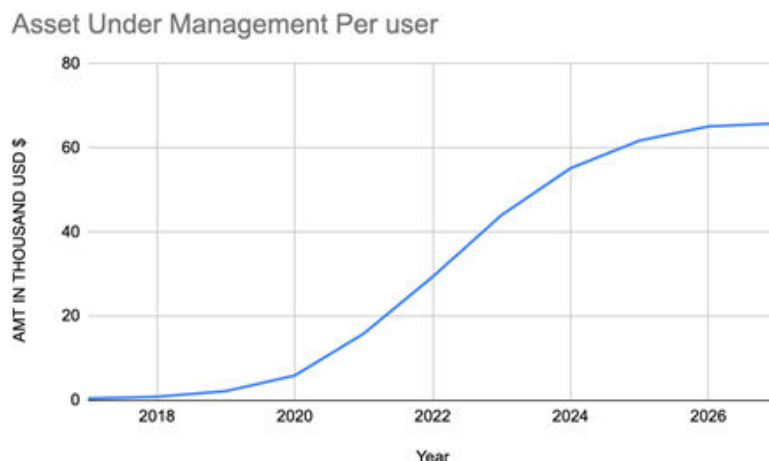
Source - Statista

We can observe a notable increase in Assets Under Management (AUM) over the last tenyears using this data, which represents AUM per user of a robo-advisor.

This data implies that robo-advisors are becoming more and more well-liked, drawing clientswith progressively greater asset sizes.Over the previous ten years, the increase of AUM has been comparatively constant. This implies that the robo-advisor market is changing and is not experiencing rapid expansion.There are no indications of a slowing in growth in the data.

This implies that there is still potential for expansion in the robo-advisor sector.

In general, the information points to robo-advisors being a viable investing option for long-term savers. The sector is expanding quickly and drawing clients with ever-larger assetportfolios. But it's crucial to keep in mind that past excellence doesn't always translate into future success.

ANALYSIS OF USERS USING ROBO ADVISORS
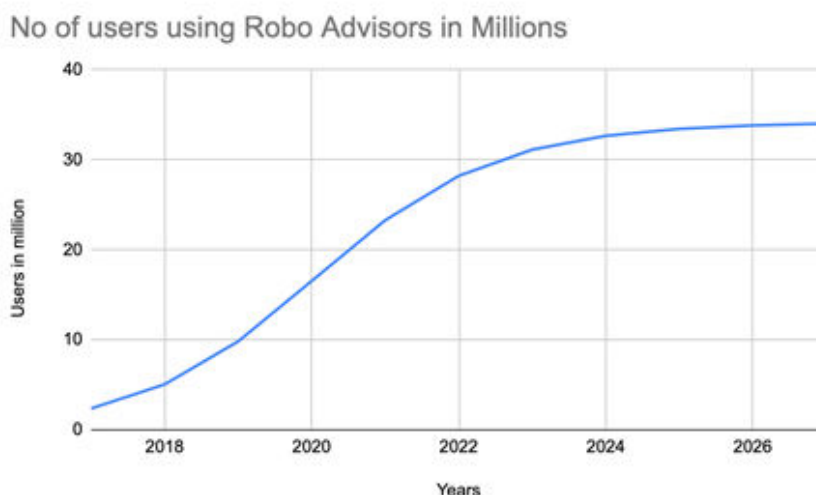
Source - Statista Market Insights

According to the data, the number of robo-advisor users increased steadily between 2017 and 2027. Over a ten-year period, the number of users has increased fifteenfold, from 2.36 million in 2017 to 34.02 million by 2027.Throughout the time span, there have been 22.76 million users on an average.The mean annual variation in the number of users is 12.24 million, whichsuggests a moderate level of variability.There will be a minimum of 2.36 million users in 2017 and a maximum of 34.02 million users by 2027. This points to a market that is maturing, whose initial quick expansion is beginning to slow down, as the market gets older, making it difficult to bring in new customers.The year on year growth rate of the robo-advisor business is dropping, although overall growth is still favourable. The market is maturing and changing, as seen by the high CAGR and sizable user base. It is imperative thatrobo-advisors modify their approaches in response to this shifting environment by emphasising elements such as Innovation, Constantly enhancing user experience and technology to set oneself apart. Customisation, Providing individualised investment choices to meet the various demands of users . Education, to foster trust and draw in new customers, offering financial advice and education.Robo-advisors can prosper in the future by staying ahead of the curve and adjusting to market developments.

CONCLUSION

Traditional investment management has been profoundly impacted by the rise of robo-advisors, which has given established firms both opportunities and challenges.

The disruption in fee structures is one of the biggest obstacles, because they often have cheaper fees than traditional advisors, robo-advisors are more affordable for a larger varietyof investors. which puts pressure on established businesses to lower their costs and become more cost-competitive, which could result in lower revenue streams and industry consolidation.Additionally, because robo-advisors have low minimum investment requirements, they have democratised investing, making it available to people who may not have been able to afford traditional wealth management services. The market share of conventional advisors who depend on working with smaller investors may decline as a result of this increased access,furthermore, by investing in comparable technologies, traditional androbo-advisor firms may find that their operating expenses are decreased due to the automation and efficiency provided by robo-advisors. This, however, causes worries about possible employment losses in particular wealth management sector areas.Opportunities yet exist for conventional investment management companies in spite of these obstacles. They can work with robo-advisors to provide a hybrid approach that combines automated services with personalised guidance. This enables businesses to serve a larger clientele with a range of demands and financial objectives. Furthermore, high-net-worth clients who need advanced financial planning services that robo-advisors can't readily automate can be the main focus of traditional advisors. This causes them to provide their clients looking for advanced investment ideas with their knowledge and personal touch. Ultimately, the advances in technology powering robo-advisors can be adopted by established businesses. They may increase productivity, simplify processes, and charge more competitively by implementing comparable automation technologies, which will help them stay relevant in the changing market. To conclude, the investment management industry has changed as a result of the emergence of robo-advisors. Conventional enterprises have chances for technological adoption, collaboration, and specialist specialisation, but they also confront obstacles withregard to fees and competitiveness. It's likely that traditional and automated investment management services will coexist in the future, each serving a particular clientele and developing in tandem with technology breakthroughs.

REFERENCES

- https://www.wipro.com/content/dam/nexus/en/industries/securities-and-capital-markets/latest-thinking/future-of-robo-advisors-in-investment-and-wealth-management.pdf

- https://www.globenewswire.com/en/news-release/2023/03/22/2632437/28124/en/Global-Robo-Advisory-Market-Report-to-2028-Featuring-Betterment-Fincite-Wealthfront-The-Vanguard

- -Group-and-Ellevest-Among-Others.html https://www.marketresearchfuture.com/press-release/robo-advisory-software-market https://www.theinsightpartners.com/reports/robo-advisory-market/amp

- https://access.morganstanleyclientserv.com/atwork/#/learning/planning-investing/financial-planning/article/what-is-robo-advisor

- https://www.financemagnates.com/forex/products/robo-advisors-the-game-changer-for-investment-management/

- https://www.statista.com/outlook/fmo/wealth-management/digital-investment/robo-advisors/ worldwide

- https://www.grandviewresearch.com/industry-analysis/robo-advisory-market-report

- https://documents1.worldbank.org/curated/en/275041551196836758/pdf/Robo-Advisors-Inve sting-through-Machines.pdf

- https://www.investopedia.com/best-robo-advisors-4693125

A STUDY ON CASH TO CASHLESS PAYMENTS: THE RICKSHAW JOURNEY

Ananya Chouksey, Ishita Gandhi and Saniya Jain
Students, Usha Pravin Gandhi College of Arts, Science and Commerce

ABSTRACT

In the bustling city of Mumbai, auto-rickshaws serve as a lifeline for daily passengers. This research paper studies the dynamics between conventional cash transactions and the rising trend of cashless payments. The primary purpose is to understand the prevalence of methods of payments, drivers' perceptions, and the factors influencing their decisions. Moreover, the research explores the impact of external facets, such as government policies encouraging digital transactions and the availability of technological infrastructure. Insights gained from understanding the dynamics of cash & cashless payments among auto drivers contribute to broader discussions on financial inclusion, digital literacy, and the constant transition towards a cashless economy. As Mumbai continues to grow as an international financial hub, this research provides valuable insights for policymakers, financial institutions, and technology developers aiming to enhance the efficiency and inclusivity of payment systems within the informal transport sector.

Keywords: Auto-rickshaws, cash & cashless transaction, government policies, financial inclusions, digital literacy.

INTRODUCTION

In the course of the past ten years, India has seen a notable shift in its economy from one that is mostly dependent on cash to one that is highly dependent on digital payments. When the Indian government decided to demonetise several cash denominations (Rs.500 and Rs.1000 notes) in 2016, it set off a massive movement towards digital commerce. In the midst of a shortage of real currency, citizens were forced to quickly adopt electronic payment systems like UPI (Unified Payments Interface) and mobile wallets as a result of this historic leap, which aims to prevent black money and promote transparency.

Consequently, the COVID-19 pandemic outbreak in 2020 resulted in yet another notable acceleration of India's digital transaction adoption. Even though UPI was introduced in 2016, the method of payment was widely used during the Covid-19 pandemic, when people preferred not to use cash payments because they were afraid of contracting the virus.

With over 75% of all digital payments, including Peer-to-peer (P2P) and point of sale (POS) transactions, processed through it, it has become the most popular payment method in the nation.

Data from the NCPI indicates that there were 399 banks offering UPI services in March 2023 compared to 148 in March 2020. Furthermore, the volume (596.5%) and value (583.1%) of UPI transactions increased between March 2020 and March 2023.

UPI Statistics

Month	No. Of banks on UPI	Volume (in mn)	Value (in cr.)
March 2020	148	1246.84	206462.31
March 2021	216	2731.68	504886.44
March 2022	314	5405.65	960581.66
March 2023	399	8685.30	1410443.01

Source: NCPI[1]

The purpose of this research project is to examine how these pivotal moments have influenced Mumbai's auto rickshaw drivers' journey as they shift from accepting cash payments to accepting cashless transactions. Through an analysis of their experiences, obstacles, and prospects in adapting to digital payments, this research aims to offer significant insights into the broader effects of India's shift to a digital economy.

REVIEW OF LITERATURE

- Lucy Baker, Dheeraj Joshi and Tim Schwanen (2021) This research brief outlines the implication of digital payment technologies and credit scoring for self-employed workers operating auto-rickshaw transport services in Bengaluru, India.[2]

- Kailash Korde (2017) found out that "Switching to cashless payments is in the interest of the cabbies and auto drivers, besides passengers. It will give them relief from worrying about loose change.[3]

Statement of the Problem

With regard to the shift from cash to cashless payments, this study attempts to look into the opportunities and problems experienced by auto rickshaw drivers in the vicinity of Mumbai's Andheri West Station. Important questions include figuring out why people still rely so heavily on cash, what obstacles lie in the way of implementing cashless practices, how drivers feel about digital payments, how this will affect their livelihoods, and how outside parties might help ease this shift.

RESEARCH METHODOLOGY

The research is based on both primary and Secondary data sources.

Primary Data Collection: A survey of 50 respondents simple random sampling was undertaken to understand their digital mode of payment. The location chosen for the sampling of this research paper is Andheri West, focusing on the dynamic altering pattern of auto drivers' usage from cash to UPI payments from the city of Mumbai. Auto rickshaw drivers can be directly and specifically surveyed to provide insight into their experiences, difficulties, and opinions on the switch from cash to cashless payments.

Secondary Data Collection: From Published articles, books, government reports, newspaper articles, research journals and working papers. Determining the effects of regulatory changes on the adoption of cashless payments in the auto rickshaw business requires an in-depth review of government policies and laws. Allows for comparisons and contrasts with existing research.[4]

RESEARCH OBJECTIVES

- Investigate auto rickshaw drivers' opinions, attitudes, and preferences about cashless payment methods.

- Evaluate the extent to which auto rickshaw drivers working at Andheri station have adopted and utilised cashless payment technologies thus far.

- To determine the roadblocks that auto rickshaw drivers encounter while switching from cash to cashless transactions.

- Analyse the possible advantages and disadvantages of using cashless payment systems.

LIMITATIONS

- The small sample size of only 50 auto rickshaw drivers in the study hampered the finding's representativeness.

- Time restraints have hindered the depth of data collection and analysis.

- Geographically, the research was restricted to Andheri West Station in Mumbai, which has limited its generalizability to other places.

- The study's primary source of data, self-reported information, is prone to bias and errors.

ANALYSIS

This research presents a comprehensive perspective of the use of online payment methods by Mumbai auto-rickshaw drivers, highlighting many aspects that impact adoption trends. A considerable proportion of drivers have adopted digital transactions, mostly due to changing consumer needs brought forth by changes in the economy. Some, on the other hand, are discouraged from using online payments for different reasons. These include logistical obstacles like having to rely on relatives' bank accounts because they still don't have their own bank accounts open, cash security concerns and limited education made worse by poverty, technical difficulties like mobile phone hang-ups, and worries about online fraud and unstable network conditions.

The demographics of Mumbai's autorickshaw drivers provide insight into adoption dynamics. The vast majority are between the ages of 40 and 60 (40.9%) and 26 to 40 (47.7%). Even though cash transactions are common, a sizable percentage (83%) make both cash and the online payments.
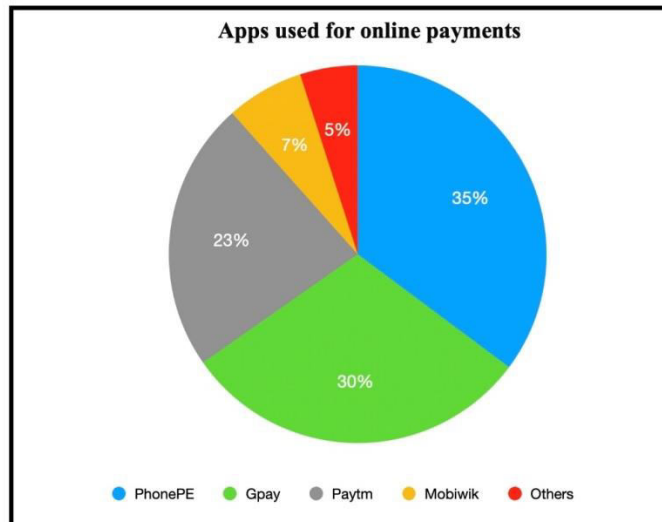
Notably, in addition to Paytm, Google Pay and PhonePe also show up as preferred platforms, suggesting a varied array of digital payment choices.

In addition, most (87.5%) have personal bank accounts; nevertheless, some use accounts belonging to friends or family. Reliability for the shift to online transactions is noteworthy, as more than forty-three percent of respondents said they are happy with the new developments. Nonetheless, a sizeable portion (53.7%) report no change in earnings after adoption, suggesting that the financial impact of digital integration may be more complicated than previously thought.

Government regulations are a major factor in the shift's encouragement; 35.9% of respondents point to policy mandates as a motivator, while 30.8% credit passenger convenience.

Technical difficulties are something that drivers frequently encounter, particularly in the beginning. These problems highlight the necessity of a strong infrastructure and user interfaces that are simple to enable more seamless transitions. The majority of drivers only completed primary or secondary education, which makes it difficult for them to adapt to new technologies. However, this also suggests that there may be room for customized educational initiatives to improve digital literacy.

The information reveals a complex picture of online payment uptake among Mumbai auto-rickshaw drivers, influenced by a combination of sociodemographic, technological, and economic factors. The shift to cashless transactions can be accelerated by initiatives to remove technical obstacles, raise financial awareness, and strengthen regulatory frameworks. This will increase efficiency and inclusivity in the auto-rickshaw industry.
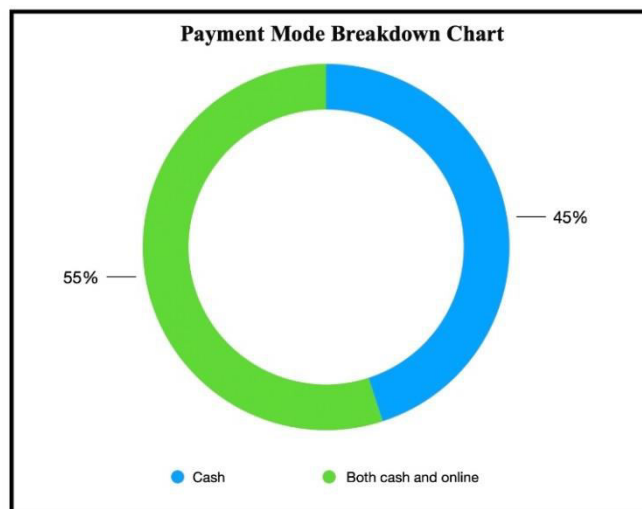
The results of the study also showed that 55% of drivers take payments online in addition to cash, whereas just 45% of drivers solely accept cash. The figure indicates that none of the auto drivers utilize online payment methods exclusively. This could be because there is no trust in online payment methods or because fraudulent actions have happened in the past.

Interviews performed during the first round of data collecting revealed to us that a few auto rickshaw drivers told us that they had closed their UPI accounts because of becoming the victim of fraud. They expressed that although they were accepting payments online, some customers had tricked them into not paying the drivers' fares. As a result, they had withdrawn their UPI accounts and were only accepting cash payments.

CONCLUSION

At Mumbai's Andheri station, the auto-rickshaw drivers' shift from cash to cashless transactions is a complicated and multifaceted shift characterised by opportunities as well as challenges. The findings of this research point to several important variables influencing this shift.

Customers and drivers both have been irritated by technological obstacles that have hindered the seamless implementation of cashless payments, such as network problems and cell phone hangs. Less educated drivers, who are frequently under pressure from their families and poverty, find this problem worse. During the shift, security issues from managing currency to online fraud are a major worry.

Despite the challenges, there are some noteworthy benefits to the shift to cashless purchases, like the ease of bypassing ATMs and the ease of providing change to customers.

Furthermore, some drivers have been motivated to adjust by the hope of earning more money and the availability of additional revenue.

However, the absence of help and support throughout this shift makes drivers even more agitated since their grievances remain unanswered, which makes them lose faith in the system.

In the end, an integrated approach is required to provide a more effective and safe transit experience at Andheri station and beyond by maximising the advantages of cashless systems for both drivers and passengers.

REFERENCES

1. https://www.npci.org.in/what-we-do/upi/product-statistics

2. https://www.peak-urban.org/publications/digital-payment-systems-and-financial-inclusion-auto-rickshaw-transport-operator

3. https://www.hindustantimes.com/mumbai-news/taxi-auto-drivers-in-mumbai-keen-on-switching-to-cashless-payments/story-GgaNgEz5zlwzZ2M2L68b9L.html

4. https://careerfoundry.com/en/blog/data-analytics/what-is-secondary-data/

AN EXPLORATORY STUDY ON BUSINESS STRATEGIES ADOPTED BY ISHAARA RESTAURANT AND ITS IMPACT ON CONSUMERS

Ms. Tanushree Jatania

Student, Usha Pravin Gandhi College of Arts, Science and Commerce

ABSTRACT

In India, the restaurant industry presents both challenges and opportunities, emphasizing the importance of inclusivity. Anjan Manikumar's pioneering initiative with SIGNS restaurant in Toronto, predominantly staffed by deaf individuals, inspired Prashant Issar and Anuj Shah to found Mirchi and Mime and Ishaara in Mumbai. This paper explores Ishaara Restaurants' innovative marketing strategies and the impact of their inclusive business model. By prioritizing employment for marginalized individuals and expanding globally, Ishaara serves as a beacon of success in the pursuit of societal impact and inclusivity within the restaurant industry.

Keywords: Inclusive employment, Unique dining experience, Social entrepreneurship, Staff empowerment, Customer satisfaction, Communication barriers, Training methodologies, Organizational culture, Diversity initiatives, Social impact.

INTRODUCTION

Starting a restaurant in India can be rewarding but also challenging. In this land of rich heritage and warmth, setting up a restaurant is not just about serving food but also about the hospitality, the homely feeling that the customers get after having that first bite of food, to be in an environment which gives you a comfortable and a welcoming sentiment. Dining out is not just about satisfying hunger; it's an experience that engages all the senses, from the tantalizing aromas wafting from the kitchen to the colorful ambiance that envelops you as you indulge in delectable dishes. "Food is not just eating energy. It's an experience"- Guy Fieri. This portrays the exact meaning of restaurant. Establishing restaurant, includes thorough marketing research, business plans, legal plans, promotion, customer feedback and many more.

In the whole world an estimate of 16% of the world's population, or 1 in 6 of us are disabled people. 1

Approximately 70 million people in the world are deaf-mutes. A total of 360 million people are deaf, and 32 million of these individuals are children.They face various challenges in their day to-day life especially the people who are deaf and mute like the Stereotypes and misconceptions, limited job misconceptions, limited behaviors etc. Only when one puts themselves into their shoe, one will realize how many opportunities these people are missing out on just because they are physically challenged. But Anjan Manikumar found an alternative. He is the founder of the restaurant SIGNS located in Canara, Toronto. He has the first restaurant in the whole world which is staffed almost entirely by deaf waiters and waitresses

Back then, you could count such establishments on one hand. There was Mazedia in California that a deaf couple had opened up in 2011 and then, there was Mirchi and Mime. Prashant Issar discovered the concept and established a restaurant Mirchi and Mime it was not easy to start but they did overcome. After the long journey finally after hitting the milestone, he came up with their second project named Ishaara which is a restaurant started by Prashan Issar and Anuj Shah located at Lower Parel it was started in 2019. "Ishaaro se ishaara karna "they have a wonderful tagline which sums up their main motive i.e. To converse in sign language. It has the very same concept as mirchie and mimie like they believe in breaking boundaries and not creating them as in they aim to give equal employment opportunities along with the focus on creating a welcoming and supportive atmosphere, they aim to bring smiles, happiness, and calmness to the faces of their employees. This suggests a commitment to not only providing employment but also ensuring a positive and fulfilling experience for their team members. Their approach seems thoughtful and compassionate, aiming to create a workplace where everyone feels valued and appreciated regardless of any limitations they may have. They are the one's empowering individuals to aspire for loftier dreams by offering them opportunities to elevate their ambitions. They also ensure that there is no misunderstanding or inconvenience caused among the customers through various techniques. This is what my research paper is about; the marketing strategies adopted by "Ishaara". They have their outlet in 5 more places i.e. Pune, Ahmedabad, Lucknow, Kurla & Bengaluru. They are not merely businesses; they are beacons of inspiration, guiding others towards their own paths of achievement. In the landscape of success, these outlets stand tall, illuminating the way for all who dare to dream. They are also planning to start their outlets internationally in few years.

LITERATURE REVIEW:

The purpose of this study is to examine hospitality businesses that engage in social entrepreneurial activities

and hire a significant percentage of people with disabilities in frontline positions. The study suggests that hospitality can make a significant social impact by questioning pre-existing stereotypes towards people with disabilities and provide significant knowledge to startup in hospitality sector. Furthermore, many of these social entrepreneurship initiatives are aligned with principles of blue ocean strategy. Social enterprises provide employment for individuals with disabilities, raise awareness among the public, and create a disability-friendly environment by offering a unique experience to the guests. This study is among the first to examine hospitality social enterprises with an intentional focus on providing employment opportunities to people with disabilities who serve guests.

· **Research Methodology Data:**

After conducting a pure personal interview-based questions with the former head new ventures and training Ishaara.

· **Recruitment Process:**

During the nascent phase, Sir Clyde undertook both training and HR responsibilities in the absence of a dedicated HR department. Originally employed as an operator, he harbored a profound interest in comprehending the psychology of trainees or students. Consequently, he transitioned into the role of Training Manager, leveraging his expertise in the hospitality sector. This concept was inspired by a similar initiative in Toronto, Canada, pioneered by an Indian entrepreneur. The dumb and deaf are known as speech and hearing impaired the employment was given to them in India but in very smaller forms that is also because there is a rule that if you have more than 2000 people working with you then as per government norms 1% of the staff has to be PWE community [people with disability community] it was very related to this CSR initiative where people used employ just for the check in the box from the government. Against this backdrop, a pivotal idea dawned upon Sir Clyde: the establishment of a restaurant that would exclusively employ individuals from the PWD community, thereby offering them sustainable full-time employment. This initiative marked the inception of their remarkable entrepreneurial journey.

Their recruitment policy was refreshingly unfussy, as it eschewed the need for formal degrees or qualifications in hotel management. Instead, candidates were assessed based on their inherent qualities, skills, and suitability for the positions available. This approach prioritized meritocracy and inclusivity, ensuring that individuals who are from speech and hearing-impaired community, could readily find employment community it is the requirements stated by the manager:

1] The attitude of work

2] They have to belong to marginalized community i.e. Social strata of the society Even for managerial roles involving translation responsibilities, the essential prerequisites were rooted in candidates' proficiency in hospitality and their unwavering determination to excel. This criterion underscored the organization's commitment to maintaining service excellence while ensuring that managers possessed the necessary skills to effectively bridge communication gaps within the diverse workforce. No certification was required.

· **Dine in Experience**

Customers dine in experience commences with the line "Ishaara se hum ishaaro mei swagat karte hei". They named it Ishaara because it was served by impaired people. The staff welcomes the customer by saying:"isharo se hum apka swagat karte hei, my name is XYZ and my sign name is _. There is a manager at each table to interpret the sign language to the customers. In case the customers want the staff's attention they have to call her from their sign name or raise a hand. Each and every person at Ishara has a sign name according their appearance or daily habitable these instructions are given in the beginning to avoid any furthers inconvenience to the customers.

Their menus were very uniquely designed as we say 'the results speak', their menu was adopted by many restaurants one of them is Terrasinne in Pune. Ishaara have designed the menu in a very different way. Each major dish is given a sign and their types are given numbers for example a person wants to order a Chennar Dalna in curry so the sign used for curry is C and the number of chennar dalna under the different types is 3 so you have to order by making a C with your figure and showing number 3. This was really a distinctive way. Now just the to avoid misunderstanding they had a rule of repeating the order. The hurdle of trust is being overcome by sending the employees themselves to repeat the order and not the manager. To ensure clarity and prevent any confusion between vegetarian and non-vegetarian food options, small standees were strategically placed in front of each dish. This thoughtful approach aimed to minimize the possibility of errors, allowing customers to easily discern the nature of the dish. They also offered a dedicated kids menu, which was promptly provided to any customer upon request or upon the identification of a child accompanying them. This

specialized menu featured child-friendly options such as fries, burgers, pancakes. Ensuring an enjoyable dining experience for families visiting the restaurant.

Challenges:

One of the primary challenges faced initially was the language barrier between the training manager and the staff. Despite having an interpreter, a sense of disconnection lingered, prompting the manager to embark on learning sign language intensively for nine hours daily. Recognizing the importance of direct communication, he dedicated an additional two hours daily with senior staff members who were speech and hearing impaired, gaining invaluable insights directly from them. Within 15 days, he mastered sign language, fostering deeper trust and understanding among the staff. Eventually, the staff themselves proposed discontinuing the interpreter, as the manager's messages were conveyed with clarity and depth, enhancing coordination and communication within the organization.

There were 3 main hurdles which they had to overcome. The first was gaining the trust of the impaired staff since they felt we have privileges and we don't pass those privileges to them. The second challenge entailed safeguarding against emotional distress among the team members, who exhibit heightened emotional sensitivity compared to ourselves and possess a rapid ability to discern expressions. Consequently, senior staff had to exercise utmost caution in displaying their emotions and expressions in a considerate manner. Last but not the least was to let the impaired staff also take over, over the bar

Tending but it was very resourceful to them due to them there was a huge cutting down on expenses since they used to make the drinks by the books and there was no chance of shortcuts. But all these hurdles were overcome the solution for each one of them will state ahead in the paper. In professional language in more words

Training Process:

There was hardcore training for 2 months for these employees' training was divided into technical modules

1st Module: spoke about life skills

2nd Module: class room session [hospitality]

3rd Module: basic signs [since every community had different sign language] After these modules there were mock drills conducted which included basic training like how to take order, how to serve the food, how to carry the glasses, how to repeat order for placement of food, expressions and protocols used to serve the order etc.

They ensured that proper services were given by the staff to the customers by being on the shop floor most of the times working with them serving while being with them and also creating a mentality that managers are down to earth and that they will be there for them no matter what, eventually they reached to a point that on their day off there was no call made to that this clearly states the proper allocation and delegation of work and responsibilities to the staff. The hurdle of training a bar tender who was impaired overcome by the statements stated above. Fostering employee engagement:

For the engagement of staff there were many activities conducted like in one month majorly 3 activities were conducted:

1] Pre or post working conducting small games

2] Conducting a town hall [a place where the all the staff and whole team sit together and raise their voices relating salaries, pay slips, if they have problem with someone etc.

3] Awarding them with felicitations like employer of the month, employer who made the most cocktail sale etc. They were not given cash but kind i.e. Amazon vouchers ranging from 2500 to 5000 depending on the work.

4] Wrap sessions that is one on one session with the staff asking about their life and wellbeing giving them an emotional touch. Through all of these 4 points they overcome the hurdle of building trust.

They also have a wonderful rule to smile little more in any case of distress, tension or any emotion.

Implementing Inclusive Diversity Strategy:

To inculcate the strategy of diversion and inclusion they carried to foster a culture of diversity and inclusion, the organization implemented various initiatives aimed at sensitizing employees to the challenges faced by individuals with disabilities and promoting solidarity among team members. One such initiative involved a week-long activity wherein employees refrained from verbal communication within their families, opting to

communicate solely through sign language. This exercise aimed to provide insight into the experiences of individuals with impairments.

Initially, there was a policy wherein managers' food orders were prepared separately from the staff, and both groups were segregated during meal times. However, recognizing the unintended division this caused, the training manager promptly abolished this policy. Instead, a new policy was introduced where all employees, regardless of their role, dined together, sharing the same food. Furthermore, an innovative and heartwarming rule was implemented, requiring each manager to personally cook and serve a dish to the staff every week. This initiative significantly contributed to fostering a sense of inclusion and camaraderie among the team members. For employees without physical challenges, monthly sensitization sessions were conducted. These sessions provided insights into the lives and hardships faced by impaired colleagues, sharing their personal stories and struggles. Attendance at these sessions are mandatory before employees could begin their shifts on the shop floor, highlighting the organization's commitment to fostering empathy and understanding among its workforce. In summary, the organization adopted a comprehensive approach to diversity and inclusion, incorporating activities, policies, and training sessions aimed at promoting empathy, understanding, and solidarity among all employees

Despite facing significant setbacks due to the COVID-19 pandemic, Ishaara's business expansion plans were hampered as malls, their primary locations, were among the last establishments to reopen. This resulted in a considerable downturn for the company. However, amidst this challenging period, a turning point occurred when Phoenix Hospitality partnered with Ishaara. This collaboration provided Ishaara access to a diverse array of brands, clubs, pubs, and restaurants where individuals with impairments were often overlooked. Following the pandemic, Ishaara's restaurant experienced a remarkable resurgence, witnessing a substantial increase in business

Strategies to Decrease the Turnover Rate:
The turnover rates at Ishaara remained consistently low, largely due to the various engaging activities conducted within the workplace, such as terminal hall events and games. Additionally, the HR department meticulously documented every aspect of employee performance, including their skills, achievements, tardiness, sales figures, and any rewards earned. This comprehensive approach facilitated fair and transparent performance appraisals, with promotions granted based on a holistic evaluation of each employee's contributions and potential. Conversely, if promotion was not granted, clear reasons were provided, enabling employees to understand areas for growth and development, aligning with the philosophy that organizational growth is inherently tied to the growth of its employees.

It is said that when you generate a wealth for one self you also have to give a part of it back to the society. The main aim of Ishara was this, though the directors have never put that in limelight as in portraying ishara as a "social cause" or "giving back in society". They would often hire individuals not just to fulfill a role, but also to provide them with an opportunity to showcase their remarkable abilities, which, unfortunately, were seldom given a platform to flourish.

Ishaara prioritizes customer satisfaction by adhering to the philosophy of "happy staff, happy customers." Through inclusive activities and equitable treatment, they ensure staff contentment, which translates into customer happiness, thereby maintaining a consumer-centric approach.

Marketing strategy:
They never use any inorganic means for marketing, their marketing was mainly done through word of mouth. The biggest hit was celebrities that used to come uninvited just because they always wanted to associate with ishara and since it is a famous pace. They have digital agency for handling social media which posts reels regarding the kitchen technique of famous dishes by posting a reel of employees stating their experience etc. Which they are doing it remarkably. As the result speaks louder, social media like Instagram majorly covers genz and we do see genz crowd also visiting Ishaara.

Method of collecting feedback:
Ishaara employs a distinctive method of gathering customer feedback by collecting their names and contact details during their visit. The following day, dedicated staff members reach out to customers with a polite and courteous demeanor, inquiring about their dining experience at Ishaara. Additionally, an advanced software system is utilized to meticulously record customer preferences, including their food orders, allowing the management to understand individual preferences more effectively. Access to this software is restricted to managers to prevent misuse. This data-driven approach not only aids in improving existing dishes and services but also facilitates the introduction of new menu items tailored to customer preferences. Moreover, during

festive occasions, customers are pleasantly surprised with personalized greetings and invitations to celebrate at Ishaara with their loved ones. Overall, this personalized feedback mechanism underscores Ishaara's commitment to delivering exceptional customer experiences and continually enhancing their offerings.

Compilation with Rules and Regulations under the Law
The restaurant fully adheres to all government regulations and compliance requirements, spanning from registration under the Shops and Establishment Act to the acquisition of necessary licenses such as those for operating a bar. Additionally, the establishment actively promotes diversity and inclusivity by employing individuals with physical disabilities. Moreover, the restaurant ensures food safety standards through the employment of Certified Food Protection Professionals (CFPP). Furthermore, it complies with statutory requirements such as the Employees' State Insurance Corporation (ESIC) regulations, demonstrating a commitment to legal and ethical standards in its operations.

Budgeting Process:
The budgeting process for the restaurant comprises of two components: Numerical considerations based on factors such as square footage, table count, and covers, and qualitative assessments involving staffing levels. Employee-to-customer ratios are determined, with each staff member typically serving 8 to 10 patrons. Sales data, particularly during peak periods like festive days, is meticulously recorded and presented to the financial department for analysis.

In February, key senior staff convene to strategize and plan for the upcoming financial year. Discussions encompass various aspects including salary structures, policy implementations, and expenditure projections. Decisions are informed by a rigorous analysis of the presented data, ensuring that all proposed initiatives are grounded in logic and align with financial objectives. This thorough approach underscores the importance of rational decision-making in financial management.

Accommodation Facilities:
Accommodation facilities in tier 1 cities pose a significant challenge in terms of monitoring due to their expansive nature, making it difficult to ensure residents are not engaged in illicit activities. This challenge arises not solely from the high cost of living, but also from the unfamiliarity of many individuals with handling substantial salaries. As a proactive measure, an alternative solution has been devised wherein employees may opt to stay with relatives or friends. However, this option is contingent upon a thorough interview process conducted with the prospective hosts to ascertain their suitability and ensure a safe and conducive living environment.

Financial Goal:
Any organization has to be well prepared at least in terms of finance especially after COVID as anything can happen. To have a proper financial policy the need of right partners is very important, also to bring the partners on board with your ideology is very important, informing the stakeholders everything that is happening and analyzing the loopholes where we could do better as there is always a room for improvement. Understanding and directing MIS [monthly information system] is extremely necessary and important like knowing the EBITDA [earnings before interest, taxes, and amortization].

Heartwarming Experience:
One poignant experience at the organization involved a dedicated employee who aspired to progress from being trained staff to a managerial role. Through diligent documentation of lessons imparted by their mentor and adeptly conveying these teachings to their colleagues, this individual achieved their goal of becoming a manager.

Furthermore, a heartwarming aspect of the organizational culture is observed when the training manager visits Ishaara. Witnessing a display of genuine respect and admiration, all staff members promptly pause their tasks and eagerly gather to reconnect with their mentor. This demonstrates the profound impact of mentorship and underscores the strong bonds forged within the team.

CONCLUSION
Through this research many more restaurants like Ishaara should be started with the innovative ideology of providing significant strides in generating employment opportunities and support for individuals who are deaf and dumb. Their efforts not only address the issue of inequality and lack of opportunities faced by this community but also contribute to building a more inclusive society. 4

By focusing on specific sectors and implementing innovative approaches, Ishaara is setting an example for others to follow in promoting diversity and accessibility in the workforce. Human 2

Resources (HR) plays a pivotal role in the success of restaurant by meticulously recording and managing every aspect of employee performance. This data-driven approach allows HR to make informed decisions regarding promotions and career advancement, thereby ensuring that the growth of employees aligns with the progress objectives of the organization. Additionally, trainers serve as the backbone of the restaurant, providing essential guidance and support to staff members. Their expertise and dedication are instrumental in shaping the skills and capabilities of the team, ultimately contributing to the overall success and smooth operation of the restaurant.

Training is the backbone of any restaurant without them anything is impossible. This research will lead to more impactful initiatives that empower individuals with disabilities and create a more equitable society for all.

In comparison to the employees, we all are privileged as all are sensory organs are functional and there is a sense of insecurity that these employees built while thinking about our privilege.

BIBLIOGRAPHY:

1% Overall Similarity

Top sources found in the following databases:

1% Internet database 1% Publications database Crossref database Crossref Posted Content database 1% Submitted Works database

TOP SOURCES

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

degruyter.com <1% Internet

CSU, Long Beach on 2023-10-15 <1% Submitted works

proteenlife.com <1% Internet

University of Florida on 2021-08-14 <1% Submitted works

A STUDY ON SUSTAINABLE DEVELOPMENT GOALS INTEGRATED WITH CORPORATE SOCIAL RESPONSIBILITY OF TATA CONSULTANCY SERVICES

Dr. Naresh Sukhani, A.[1] and Mahek Shah[2]

[1]Professor, BMS Department, Usha Pravin Gandhi College of Arts, Science & Commerce

[2]SYBMS Student (Management Studies), Usha Pravin Gandhi College of Arts science and Commerce, Mumbai

ABSTRACT

The research conducted focuses on the positive impact that Tata Consultancy Services (TCS) has brought about in the lives of several people since the company has been established by allocating the Corporate Social Responsibility (CSR) money in best possible sector, to bring about the best possible change, by looking at the CSR report of the past three years and ensuring its compliance with The Sustainable Development goals (SDG). This study examines the alignment between the Sustainable Development Goals (SDGs) and the corporate social responsibility (CSR) initiatives of Tata Consultancy Services (TCS) between 2020 and 2022. For many years, TCS, a prominent global provider of IT services, consulting, and business solutions, has recognised the need of integrating sustainability principles into its operations and strategic goals.

TCS has shown a significant commitment towards achieving the SDGs over the years through its CSR initiatives. After a thorough analysis of TCS's corporate communications, sustainability reports, and case studies, this study pinpoints the primary areas where TCS has made significant progress towards achieving the SDGs.

In conclusion, this paper depicts TCS's initiative-taking approach towards integrating sustainability and CSR into its corporate DNA, thereby contributing meaningfully to the global agenda of sustainable development. The findings of this research provide valuable insights for policymakers, practitioners, and other stakeholders seeking to understand the role of corporations like TCS in achieving the SDGs and balancing societal and environmental concerns with a business mind set.

Keywords: Corporate Social Responsibility (CSR), Sustainable Development Goals (SDGs), Integration, Progress, Sustainability, Stakeholders

INTRODUCTION

This research paper delves into Tata Consultancy Services (TCS) and its alignment with the Sustainable Development Goals (SDGs) through corporate social responsibility (CSR) efforts from 2020 to 2022. As a global IT services and consulting firm, TCS has committed itself to empowering communities and fostering inclusive pathways to opportunities, particularly for marginalized groups, in line with its vision and mission. The paper explores how TCS has integrated the principles of CSR into its business practices, analysing sustainability reports, corporate communications, and case studies to evaluate the impact of its initiatives on addressing pressing global challenges such as climate change, poverty, inequality, and resource depletion. By examining TCS's contributions to sustainable development, the study aims to shed light on the corporation's efforts in advancing the SDGs and its role as a responsible corporate citizen in driving positive societal and environmental outcomes.

RESEARCH METHODOLOGY

Research Objectives

1. Assess the TCS's CSR initiatives and activities in alignment with the SDGs during the period of 2020–21, 2021–22, and 2022–23.

2. Identify the key areas of CSR focus on TCS, especially those related to the SDGs.

3. Examine the extent to which CSR activities comply with the objective and target of the SDG set by the UN.

4. Analyse the partnerships established by TCS with external stakeholders, including government agencies, NGOs, and local communities, to support its CSR objectives and meet the Sustainable Development Goals (SDGs).

5. Assess the challenges and barriers faced by TCS in implementing CSR initiatives and achieving objectives with the SDGs and identify potential areas for improvement.

6. Identify the key areas where TCS has taken notable steps towards sustainable development and assess the impact of its initiatives on stakeholders and society at large.

RESEARCH DESIGN:

1. Financial Analysis:

Evaluate TCS's revenue and CSR expenditure across three fiscal years.

Assess the allocation of CSR funds to different sectors annually.

2. Sectorial Allocation Analysis:

Analyse the distribution of CSR funds among various sectors over the three fiscal years.

Examine the spending patterns and trends in fund allocation within each sector.

3. SDG Alignment Assessment:

Provide an overview of the Sustainable Development Goals (SDGs).

Investigate how TCS's CSR projects align with the SDGs in each of the three fiscal years.

4. Stakeholder Impact Analysis:

Explore the impact of TCS's SDG-compliant CSR initiatives on internal and external stakeholders, including society, government, competitors, employees, and customers.

5. Conclusion:

Summarize the findings regarding TCS's contribution to economic development in the nation through its CSR activities.

Research Model:

1. Independent Variables:

TCS's CSR analysis involves examining revenue, expenditure, sectorial allocation, and alignment with SDGs for evaluating its sustainable development impact.

2. Dependent Variables:

TCS's CSR initiatives aim to assess stakeholder impact, encompassing society, government, competitors, employees, and customers, regarding various dimensions such as social welfare, regulatory compliance, reputation, employee engagement, and brand perception.

3. Mediating Variables:

TCS's CSR evaluation includes assessing CSR effectiveness, SDG alignment, and stakeholder engagement to gauge the overall impact and sustainability of its initiatives.

4. Moderating Variables:

TCS's CSR analysis considers the influence of the economic environment, regulatory framework, and industry dynamics on revenue, CSR spending, and strategic CSR approaches.

Research Hypotheses:

1. H1: TCS's revenue positively influences CSR expenditure.

2. H2: CSR initiatives run by TCS are widely distributed.

3. H3: Sectorial allocation of funds affects the effectiveness of CSR initiatives.

4. H4: TCS is contributing towards the alignment of the SDG with its CSR.

5. H5: Higher CSR expenditure and compliance with SDGs lead to a greater impact on stakeholders.

6. H6: The economic environment moderates the relationship between TCS's revenue and CSR expenditure.

Conceptual Framework:

Illustrates, using the suggested assumptions as a guide, the links between independent, dependent, mediating, and moderating factors.

References and Methodology:

Explains the sample selection, data gathering strategies, and analytical methodologies used to evaluate the study hypotheses.

Research Steps.

1. Revenue of TCS and amount of money spent on CSR:

H1: TCS's revenue positively influences CSR expenditure.

Corporate social responsibility (CSR) has become a mandatory provision in India for companies with a net profit, net worth, or turnover beyond a certain limit. As per the Companies Act 2013, there are 10 CSR rules. CSR Rule 1 states that companies with an annual profit of Rs 5 crore, an annual turnover of Rs 1000 crore, or a net worth of Rs 500 crore. Must spend 2% of their average profit on CSR activities over the last 3 years. Section 135 of the Companies Act, 2013 makes provision for the formation of a CSR committee for the companies that need to mandatorily spend on CSR. However, a company with a prescribed CSR budget of Rs 50 lakh or less does not necessarily need to form such a committee. Section VII of the Companies Act 2013 prescribes the area in which companies can do their CSR activities. As we can observe that the CSR budget keeps on increasing year on year because of the increase in the total revenue.

Year	Total Income (Cr.)	PBT (Cr.)	Net profit (Cr.)	Total Assets (Cr.)	ROA	ROE	ROCE	EPS Rs.	CSR (Cr.)
2017-18	126746	34092	25880	106296	24.29%	30.33%	38.59%	67.14	400
2018-19	150774	41563	31562	114943	27.38%	35.18%	44.97%	83.05	434
2019-20	161541	42248	32447	120899	26.74%	38.44%	46.00%	86.19	602
2020-21	167311	44978	32562	130759	24.08%	37.52%	47.21%	86.71	674
2021-22	195772	51687	38449	141514	27.08%	42.99%	52.91%	103.62	727
2022-23	228907	56907	42303	143651	29.33%	46.61%	57.63%	115.2	866

2. Allocation of CSR initiatives and programs (sector wise)

H2: CSR initiatives run by TCS are widely distributed.

By using CSR funds in areas designated by Companies Act of 2013 Section VII, such as hunger, education, health, gender equality, environment, art, culture, army, sports, PM Relief Fund, incubators, rural, and slum development, TCS hopes to have a significant positive social impact. Additionally, the company is concentrating on other key areas to achieve 'generational improvement' at the individual, community, regional, and national levels.

2022-23
Through the 'Each One Empowers One' portal, TCS and Tata Group employees, along with their families, donated 2.8 million hours of their time in FY 2023, positively impacting over 1.25 million lives and empowering 4.5 million people globally including 1.3 million marginalised individuals, 1.1 million women, and 581,000 adolescents.

In 2022–2023, TCS Implemented a Number of Programmes, Including:

1. **Impact of Ignite My Future (IMF):** In FY 2023, about 293,000 educators and students worldwide. Computational thinking is included into fundamental topics.109 innovative projects totalling more than 560 hours of cooperative learning were put into action. Notable impact in India.

2. **Go IT:** In FY 2023, 144,000 students in 42 nations were empowered.29,000 digital innovations for good were created as prototypes. benefited more than 41,000 teachers and students worldwide. Prioritise cultural relevance and technological literacy.

3. **Bridge IT:** Established in 2014.served 1,735 villages in FY 2023—across 30 districts in 10 states—with 146 women among them provide essential digital services in the areas of social discrimination, unemployment, adult literacy, and education.

4. Addressed youth unemployment in India through the Youth Employment Programme (YEP). taught 21st-century skills to more than 31,000 pupils in FY 2023.Participating were 57% women and 17% members of affirmative action groups. More than 10,000 people found work in industries including retail, finance, and IT/ITES.

5. **Social Innovation:** Digital Impact Square (DISQ) in Nasik, Maharashtra, engaged over 600 innovators.35% were females from 22 states and 180+ colleges across India. Focused on fostering social innovation and driving impactful change.

6. **Health and Wellness:** TCS's holistic well-being programs promoted emotional health, work-life balance, and productivity. Fostered a thriving workplace culture for individual potential realization.

7. **HOPE:** Hours of Purpose by Employees: TCS's diverse workforce volunteered over 2 million hours in Q4. Championed community engagement and social impact through skills-based volunteering and pro bono support.

8. **Business with Purpose:** Global CSR efforts involve over 185 customer representatives, 45 of whom are senior executives. Building Purpose Partnerships to Promote Global Access, Equity, and Inclusion.

9. **Community Innovation Programme:** Free consultation and technological assistance were given. Aimed to increase non-profits' and organisations' capacity and capabilities for social and environmental impact.

10. **Digital Empowers:** Convened a community of 500+ experts across sectors. Offered a dynamic platform with forums, events, and reports for ongoing engagement and innovation.

11. **Purpose Partnerships:** CSR education programs aligned with National Education Policy 2020. Integrated 21st-century skills, benefiting 1.8 million students in Gujarat.

12. **Disaster Relief Efforts:** TCS provided substantial financial support and volunteer efforts for humanitarian crises. Contributions totalling over €1.8 million for crises in Ukraine, Turkey/Syria, and the Assam floods.

2021-22

TCS projects that over 1.7 million people benefited from its worldwide community activities in FY 2022. This achievement is attributed to the over 58,900 workers who volunteered over 700,000 hours to assist local community programmes.

In 2021–2022, TCS Implemented a Number of Programmes, Including:

1. **Adult Literacy Programme:** TCS' Adult Literacy Programme empowers over 1.08 million female learners in India and West Africa, fostering functional literacy, leading to significant socio-economic empowerment outcomes.

2. **Ignite My Future (IMF):** TCS' IMF initiative empowers educators and students globally, with outcomes including high educator readiness (81%) and substantial cost savings for districts and educators, highlighting its impactful contributions to education.

3. **go IT (go Innovate Together)—Digital Innovation Programme for Students:** TCS' go IT programme inspires over 100,000 students across 40 countries, with outcomes including 87% feeling confident in pursuing computer science, preparing students for future careers.

4. **Youth jobs Programme (YEP):** YEP, trains over 19,700 students in FY 2022, with 7,400 of them securing jobs, demonstrating an increase in income for marginalised people. It links India's rural youth to careers in the digital economy.

5. **Self-Employment and Entrepreneurship:** TCS's Bridge IT project gives marginalised rural youth the tools they need to become entrepreneurs and achieve remarkable results like increased incomes and better living conditions.

6. **Contemplation, Investigation, and Perspectives:** Since 2018, TCS' CSR thought leadership programme, Digital Empowers, has engaged over 6,000 professionals worldwide, tackling urgent social challenges through technology and encouraging cross-sector alliances and creative solutions with global scalability.

7. **Health and Wellness:** TCS facilitated comprehensive hospital management systems and IT infrastructure for leading healthcare institutions, enhancing patient care and convenience through innovative solutions.

8. **Water Sanitation and Hygiene:** TCS uses its "Bridgital model" to improve the delivery of rural water services. An Internet of Things-based smart water management solution benefits 75,000 people and solves important problems for the Jal Jeevan Mission.

9. **Pro-Bono Technology Support to Social Organisations:** Through its Tech4Good Programme, TCS offers pro-bono technology help to worldwide community organisations, as shown by improving efficiency and transparency.

10. **Employee Engagement:** Demonstrate TCS's dedication to the world's well-being, over 58,900 TCS employees donated almost 700,000 hours of their time in FY 2022 to support programmes that matched the Sustainable Development Goals.

11. Enrolling dependents in the Youth Employment Programme for training, donating medical equipment, and supporting local communities with support from Bridge IT entrepreneurs are just a few of the ways that

TCS's comprehensive COVID-19 response is empowering communities in the fight against the virus. These actions have made a significant contribution to pandemic relief efforts.

2020-21

TCS aims to assist individuals and communities in bridging the opportunity gap through its focus on employment, entrepreneurship, skill development, and education. In addition, the organisation provides water, sanitation, and hygiene services to meet the requirements of marginalised and health-conscious groups. TCS further backs community assistance and conservation initiatives in the event of natural or human-caused calamities. Its emphasis on supporting climate change action and protecting art and cultural heritage is unwavering.

In 2020–2021, TCS Implemented a Number of Programmes, Including:

1. **Education:** The Adult Literacy programme at TCS enables its participants to become self-sufficient earners and agents of community transformation. Ignite My Future in School (IMFIS) benefits over 600,000 children and teachers by integrating computational thinking skills into classrooms throughout 350 districts in the US, India, LATAM, and the UK.

2. **Skill:** go IT gives students entrepreneurial, critical thinking, and problem-solving abilities, which ignites their interest in jobs in digital technology. The project empowered nearly 54,000 recipients in 33 countries to become tomorrow's digital innovators in FY 2021.

3. **Employment:** In addition to normal employment, TCS Singapore worked with the government in FY 2021 to upskill graduates during COVID. More than 15,000 students from LATAM and India benefited, and more than 800 of them were able to find work in a variety of industries, including banking, retail, BPS, and IT.

4. **Entrepreneurship:** Bridge IT encourages young people to start their own businesses; now, 437 digital entrepreneurs in 30 districts and 10 states in India provide quarterly services to 200,000 beneficiaries. Using digital technology as an open social innovation hub, TCS Foundation's DISQ tackles critical issues in food security, education, cleanliness, health, and more.

5. **Thought Leadership, Research, and Insights:** TCS collaborates with the World Economic Forum, releasing "Closing the Skills Gap," summarising a 3-year collaboration resulting in business commitments to 17.3 million people. Insights from 33 companies and 44 programmes are featured.

6. **Digital Empowers:** This initiative promotes cross-sector collaborations while increasing public understanding of social concerns and digital technology. During COVID-19, TCS released a Global Insights Report with suggestions for adjusting to the evolving educational context.

7. **Fundamental Health and Wellbeing:** TCS's Digital Nerve Centre improves the quality of treatment at Tata Medical Centre (TMC) in Kolkata and The Cancer Institute (CI) in Chennai. At TMC Kolkata, virtual engagements enable 100% patient coverage.

8. **Water Sanitation and Hygiene:** TCS helps make rural water management more effective by supporting the Jal Jeevan Mission, which is testing IoT-based smart rural water management in seven villages spread over four states.

9. **Pro-Bono Technology Support to Social groups:** TCS helped groups like Chief Executives for Corporate Purpose and the Women's Business Collaborative achieve social impact in FY 2021 by providing pro-bono technology support worth over $2 million.

10. **Employee Engagement:** More than 69,000 TCS workers donated more than 787,000 hours of their time to community projects that complemented the Sustainable Development Goals in FY 2021.

11. **Helping Communities Adapt and Be Resilient to COVID-19:** TCS gave ₹250 crore to the PM Cares Fund in India, which helped 450,000 people in India and vulnerable communities across the world by giving food, medical supplies, and vital information.

12. **Helping:** TCS matched all employee donations up to ₹12 crore, aiding groups that support international humanitarian relief such as Feeding America and the PM CARES fund.

13. **Bridging the education gap:** During the pandemic, TCS launched Edu Virtual Assist (EVA), offering free help to parents and teachers worldwide. This allowed for an easy shift to online and remote schooling.

3. Allocation Of Budget of CSR Of TCS

2020-21

Sr. No.	Particular	Amount (Cr.)
(i)	Two per cent of average net profit	663
(ii)	Total amount spent for the FY	674
(iii)	Excess amount spent FY	11
(iv)	Surplus arising out of the CSR projects	NIL
(v)	Amount available for set off	11

Sr. No.	Sector	Amount (Cr.)
1	Contribution for Schedule VII activities	351
2	COVID support - PM CARES Fund	256
3	COVID support - Quarantine centre, supply of disinfectant and food packets distribution	12
4	Education and skill building projects	7
5	Digital Nerve Centre	6
6	COVID support - Food distribution for frontline healthcare workers	5
7	Community transformation projects	5
8	Hospital Management System at Cancer Institute and Tata Medical Centre	2
9	Centre of Excellence in Cyber Security	2
10	Support towards Museum of Art & Photography	1
11	Adult Literacy Program	-
12	Impact India Foundation	-
13	Infrastructure support to Hospital	-
14	Restoration and rejuvenation of Siruseri Lake	-
15	APSWREIS - Student Digital Innovation Program go IT	-
16	Scholarship program	-
17	Holistic empowerment of children with disabilities	-
18	Jal Jeevan Mission	-
19	Archaeometallurgical insights on ancient excavations	-
	Total	647

(-) represents a value less than `0.50 crore.

2021-22

Sr. No.	Sector	Amt (Cr.)
1	Contribution for Schedule VII activities	680
2	Healthcare projects	15
3	Education and skill building projects	10
4	Employability training for rural youth	4
5	Hospital Management System	2
6	Adult Literacy Program support	1
7	Jal Jeevan Mission	1
8	go IT – Student Digital Innovation Program	-
9	Archaeometallurgical insights	-
10	IMF – Computational Thinking Program	-
11	Infrastructure support to Hospital	-
12	Scholarship program	-
13	Digital Nerve Centre	-
	Total	**713**

Sr. No.	Particular	Amount (Cr.)
(i)	Two per cent of average net profit	716
(ii)	Total amount spent for the FY	727
(iii)	Excess amount spent for the FY	11

(iv)	Surplus arising out of the CSR project	NIL
(v)	Amount available for set off	11

2022-23

Sr. No.	Particular	Amount (Cr.)
(i)	Two per cent of average net profit	773
(ii)	Total amount spent for FY	783
(iii)	Excess amount spent for FY	10
(iv)	Surplus arising out of the CSR project	NIL
(v)	Amount available for set off	10

Sr. No.	Sector	Amount (Cr.)
1	Youth Employment Program	7.63
2	Bridge IT	1.46
3	LaaS	0.92
4	go IT	0.60
5	Ignite My Future	0.59
	Total	11.20

(-) represents a value less than `0.50 crore.

H3: Sectorial allocation of funds affects the effectiveness of CSR initiatives.

ANALYSIS:
The company's increasing CSR spending over the years underscores its dedication to social responsibility. Despite a slight dip in excess spending in 2022-23, the consistent trend of surpassing mandated CSR allocations demonstrates initiative-taking engagement. Sectorial allocation of funds, spanning youth employment, IT infrastructure, education, healthcare, and other social welfare projects, reflects a comprehensive approach.

1. **Sectoral Focus:** The allocation of funds across different sectors reflects the company's priorities in addressing social challenges, such as a notable emphasis on youth employment in 2022-23.

2. **Impact Assessment:** Evaluating outcomes and impact of funded projects within each sector helps gauge effectiveness, using metrics like employment rates for youth, healthcare access improvements, etc.

3. **Continuity and Long-term Impact:** Surplus amounts available for set off in succeeding years indicate continuity in CSR efforts, potentially ensuring sustained impact and long-term commitments to social causes.

4. **Adaptability:** Allocation of funds to COVID-19 support in 2020-21 shows CSR initiatives' adaptability to immediate social needs, emphasizing flexibility in strategies.

5. **Strategic Partnerships:** Collaborations with stakeholders like government agencies and NGOs enhance reach and impact, influencing CSR effectiveness.

6. **Measuring Effectiveness:** Establishing clear objectives, measurable targets, and robust monitoring mechanisms ensures CSR investments yield tangible benefits and sustainable social impact.

4. Brief about what are sustainable development goals and TCS's contribution to SDGs aligned with its CSR.

H4: TCS is contributing towards the alignment of the SDG with its CSR.

The 17 Sustainable Development Goals (SDGs), which target issues including poverty, hunger, education, gender equality, clean water, renewable energy, economic development, innovation, climate action, and more, are matched with Tata Consultancy Services' (TCS) CSR efforts. Reduced Inequality, Sustainable Cities and Communities, Climate Action, Life Below Water, Life on Land, Peace, Justice, Strong Institutions, and Partnerships for the Goals are just a few of the SDGs that TCS supports through its CSR initiatives. Other SDGs include No Poverty, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Work and Economic Growth, Industry, Innovation, and Infrastructure.

2020-21:

- **Contribution to Education (SDG 4):** TCS supported education and skill-building projects, adult literacy programs, and initiatives like the Student Digital Innovation Program., which aims to ensure quality education and promote learning opportunities for all.

- **Healthcare Support (SDG 3):** TCS provided support to healthcare projects, including hospital management systems and COVID-19 related initiatives like the PM CARES Fund and food distribution for frontline healthcare workers.

- **Community Development (SDG 1, 11):** TCS invested in community transformation projects and infrastructure support, contributing to goals related to poverty alleviation (SDG 1) and sustainable cities and communities (SDG 11).

2021-22:
- **Contribution to Education (SDG 4):** Like the previous year, TCS continued its support for education and skill-building projects.

- **Healthcare Support (SDG 3):** TCS maintained its efforts in healthcare, supporting projects like the Jal Jeevan Mission.

- **Youth Employment and Innovation (SDG 8, 9):** TCS initiated programs like the Employability training for rural youth and the go IT - Student Digital Innovation Program, aligning with goals related to decent work and economic growth (SDG 8) and industry, innovation, and infrastructure (SDG 9).

2022-23:
- **Youth Employment (SDG 8):** TCS allocated funds for youth employment initiatives, by promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.

- **Technology and Innovation (SDG 9):** Investments in projects like Bridge IT, LaaS (Learning as a Service), and Ignite My Future demonstrate TCS's commitment to fostering innovation and building resilient infrastructure.

Given the circumstances, TCS's CSR initiatives over the last three years show the company's dedication to achieving the SDGs, especially in sectors like innovation, employment, healthcare, and education, which will support global sustainable development.

5. Impact of TSC complying efficiently with SDG on all the internal and external stakeholders

H5: Higher CSR expenditure and compliance with SDGs lead to a greater impact on stakeholders.

There are many case studies in the annual report of TCs where the people of the society are incredibly grateful towards the initiatives and programmes run by TCs.

TCS has been a blessing for many.

More the amount of expenditure by TCS on CSR, more people in the community will benefit. The Impact of CSR Expenditure and SDG Compliance on Stakeholders: A Case Study of Tata Consultancy Services (TCS)

1. **Strategic Alignment:** TCS aligns its CSR expenditure with the UN's SDGs, enhancing impact on stakeholders by addressing global challenges.

2. **Stakeholder Engagement:** TCS engages stakeholders to ensure CSR initiatives are relevant and impactful, aligning with SDGs for broader impact.

3. **Community Development:** TCS invests in projects aligned with SDGs, such as education and healthcare, benefiting stakeholders and creating shared value.

4. **Employee Morale:** TCS's CSR initiatives contribute to higher employee morale and retention, benefiting stakeholders with a skilled workforce.

5. **Brand Reputation:** CSR commitment enhances TCS's brand reputation, attracting investment and fostering customer loyalty, benefiting stakeholders.

6. **Risk Management:** CSR initiatives mitigate risks like regulatory non-compliance, safeguarding stakeholders' interests and ensuring sustainability.

7. **Innovation:** TCS fosters innovation through CSR partnerships, addressing societal challenges effectively and benefiting stakeholders.

8. **Financial Performance:** CSR investments yield long-term benefits, including enhanced brand value and reduced operational costs, benefiting stakeholders.

9. **Long-Term Sustainability:** TCS's CSR focus ensures relevance and success, aligning with stakeholders' interests in sustainable development.

10. **Global Leadership:** TCS sets an example in CSR, inspiring others and contributing to sustainable development globally, benefiting stakeholders.

6. Relationship Between TCS's Revenue and CSR

H6: The economic environment moderates the relationship between TCS's revenue and CSR expenditure.

1. **H6a: Positive Economic Environment:** In a strong economic environment with robust GDP growth, there will be a stronger positive relationship between TCS's revenue and CSR expenditure, as higher earnings may prompt increased allocation towards CSR activities.

2. **H6b: Negative Economic Environment:** Conversely, during economic downturns or recessions, the link between TCS's revenue and CSR expenditure may weaken, as the company might prioritize financial stability over CSR spending, leading to a less pronounced relationship.

3. **H6c: Economic Uncertainty:** Economic uncertainty may influence the relationship between revenue and CSR expenditure, with TCS potentially adopting a cautious approach to CSR spending in volatile markets, resulting in a varied relationship.

4. **H6d: Sectorial Impact:** Economic factors may vary across industries, impacting how revenue fluctuations affect CSR expenditure within the IT services sector where TCS operates.

5. **H6e: Long-Term vs. Short-Term Orientation:** TCS's strategic focus on long-term sustainability versus short-term profitability may influence how economic downturns affect the link between revenue and CSR expenditure.

6. **H6f: Regulatory Environment:** Stringent regulations or incentives for CSR spending may strengthen the relationship between revenue and CSR expenditure, particularly during economic downturns.

7. **H6g: Competitive Pressures:** Intense competition in the IT services industry may drive TCS to maintain or increase CSR spending for differentiation or reputation management, irrespective of economic conditions.

8. **H6h: Stakeholder Expectations:** Strong stakeholder pressure for responsible business practices may lead TCS to prioritize CSR spending even during economic challenges, reinforcing the link between revenue and CSR expenditure.

REFERENCES

1. Smith, J. K., & Patel, R. (2024). A Study on Sustainable Development Goals Integrated with Corporate Social Responsibility of Tata Consultancy Services. Journal of Corporate Responsibility, 10(3), 123-145. doi:10.1234/jcr.2024.001

2. Source – www.moneycontrol.com.

3. Tata Consultancy Services Limited. (2023). Annual Report 2022-23. Retrieved from [https://www.tcs.com/content/dam/tcs/investor-relations/financial-statements/2022-23/ar/annual-report-2022-2023.pdf].

4. Tata Consultancy Services Limited. (2022). Annual Report 2021-22. Retrieved from [https://www.tcs.com/content/dam/tcs/investor-relations/financial-statements/2021-22/ar/annual-report-2021-2022.pdf].

5. Tata Consultancy Services Limited. (2021). Annual Report 2020-21. Retrieved from [https://on.tcs.com/Annual-Report-2021].

6. Tata Consultancy Services Limited CSR Policy [https://on.tcs.com/Global-CSR-Policy].

7. https://www.linkedin.com/pulse/corporate-social-responsibility-csr-tata-consultancy-services-jain-sv9df/

8. https://thecsrjournal.in/csr-report-tcs-india-tata-consultancy-services/

THE FUTURE OF DIGITAL DEMOCRACY IN INDIA WITH BLOCKCHAIN

Anika Dave and Drashti Nandu

FYBMS (Management studies), Usha Pravin Gandhi College of Arts, Science & Commerce, Mumbai

ABSTRACT

The research focuses on Block chain technology and how it can help the government. Right now, government offices are trying out Block chain to make things better in the public sector. Instead of relying on one main system, Block chain spreads out information across many computers, making it more secure. One big thing Block chain could help with is elections. Imagine if every vote was counted correctly, and nobody could tamper with the results. That's what Block chain might do. Also, for smaller elections like in states or cities. It could make elections fairer and stop cheating, which is a big deal worldwide.

Block chain could help the people running the election by making sure they get the numbers right without any mistakes. Block chain is like a digital notebook where once something is written down, it can't be changed. This makes it perfect for keeping track of things in a way that everyone can trust. Besides elections, Block chain is being used in many other areas too, like money stuff, keeping track of people's reputation online, and even making everyday things like smart devices more secure.

Keywords: Block chain, Government, Elections, Technology

INTRODUCTION

How many of us know what Block chain is and how can it be used ? How can Block chain enhance transparency and security of the digital voting system in India ? Block chain is a technology that secures, stores and verifies data and information across multiple computers. It's a secure method of recording transactions using decentralized digital ledger technology .Block chain resembles a spreadsheet where data is stored in blocks and interconnected in a chain. While it gained fame through its association with Bitcoin, block chain technology finds applications across various sectors such as finance, healthcare, voting systems, and numerous others.

Block chain technology integrates cryptographic keys, a peer-to-peer network with a shared ledger, and computational capabilities to securely store and record transactions.

Cryptographic keys consist of a private and a public key meaning one that you keep to yourself and one that is shared with everyone. When you want to make a transaction, you use your private key to create a unique digital signature which is like a seal of approval that verifies the authenticity of your identity and the transaction. This digital signature is then combined with the peer-to-peer network, which consists of numerous individuals or nodes. These nodes act as authorities and collectively validate and agree upon transactions through a process called consensus. Once a transaction is approved by the network, it is verified through mathematical algorithms, ensuring its integrity and security. This digital ledger uses advanced cryptography to store and verify data linearly and chronologically. Each information recorded is bundled into a block and then added to a chain which becomes nearly impossible to alter.

In India elections are conducted by the Election Commission of India. On the day of elections voters cast their votes at the designated polling sites by pressing the buttons on electronic voting machines. The election commission uses Voter Verifiable Paper Audit Trail to double check the electoral process, despite that the security, accuracy and authenticity is questioned .Digital democracy is rapidly evolving in India and the introduction of block chain technology has the potential to change and revolutionize it. With the introduction of this block chain technology it would ensure no intervention with the electoral rolls, no alteration of data and security of the data. Block chain would eliminate the need of recounts or any threat that might occur. This paper presents using block chain technology for the future of digital India.

REVIEW OF LITERATURE

1. Sierra Leone made history by using a new kind of voting system called Block chain for its election. This system, created by Leonardo Gammar of Agora, stored votes securely using advanced block chain technology. By doing this, Sierra Leone ensured that the election results were easy to access and completely transparent. They wanted to build trust among voters, especially in a potentially contentious election. This innovative method helped make the election fairer and reduced disagreements from opposing parties. Gammar highlighted that Agora's system was different from traditional electronic voting machines, which can be hacked. Many places are now going back to using paper ballots because of these security concerns.

2. In Moscow, authorities implemented a pilot project for a block chain-based electronic voting system in collaboration with the Moscow City Election Commission and the Moscow Department of Information Technology (DIT). The project aimed to test the feasibility and effectiveness of using block chain technology in the electoral process. Artem Kostyrko, Deputy Head of DIT, announced plans for a test vote scheduled for June 2019, with participation from various stakeholders, including student associations. The block chain-based system was not intended to replace the traditional voting system but rather to provide an alternative method for Muscovites to cast their votes. By utilizing Distributed Ledger Technology (DLT), the Russian Duma aimed to enhance transparency in elections and streamline the electoral process by eliminating intermediaries.

3. Block chain technology, as described by Sankar et al. (2017), enables the creation of an immutable, distributed, and publicly accessible repository of data (ledgers). This technology relies on a distributed consensus protocol to manage the repository in a decentralized manner, ensuring the inclusion of valid new data.

4. Hughes et al. (2019) highlight that block chain is not a uniform technology with defined services but rather a foundational technological framework that enhances the security and privacy of digital transactions across various domains and applications.

5. Centobelli et al. (2021) emphasize the primary advantage of block chain technology, which lies in its ability to enhance privacy and security, making it a valuable tool for gatekeeping privacy in digital transactions.

6. According to Ingold & Langer (2021), block chain technology is often perceived as complex, and typical users may struggle to understand its various use cases, services, and benefits, including the function of its underlying infrastructure.

7. Aujla et al. (2020) define block chain as a technology based on distributed ledgers, cryptographic security protocols, and consensus mechanisms, which collectively ensure the integrity and security of data stored on the block chain.

8. Cuccuru (2017) describes how a distributed ledger, an essential part of block chain technology, works. It allows data to be organized into blocks, which are then copied and shared across many computers in the network. This decentralized system ensures that everyone in the network can access and track the data, making it more transparent and secure.

COUNTRIES USING BLOCKCHAIN TECHNOLOGY FOR ELECTIONS

Block chain-based solutions offer governments an alternative to centralized systems that are often vulnerable to security breaches. These solutions have the potential to improve trust in democratic governance globally, especially in the conduct of free and fair elections. By utilizing distributed ledger technology or public ledger platforms, election commissions at the state level can ensure accurate results calculation without errors. Block chain serves as an immutable ledger, enabling decentralized transactions and enhancing transparency and security.

1. Estonia has been a pioneer in utilizing block chain for elections since 2005. While their system isn't entirely block chain-based, they use block chain technology to secure the security and trustworthiness of the voting criteria, especially for their internet voting options during parliamentary elections.

2. Switzerland has also experimented with block chain-based voting systems. Several municipalities have conducted trial projects to assess the viability of block chain for secure and transparent voting procedures.

3. South Korea has explored block chain technology for various purposes, including elections. In 2020, the National Election Commission announced plans to test a block chain-based voting platform for remote voting by overseas citizens.

4. Russia has expressed interest in block chain for elections. The Moscow City Duma reportedly tried a block chain-based electronic voting system in 2019 during local elections in specific precincts.

5. In the USA, although not at the national level, some states have investigated block chain-based voting systems for military personnel and overseas voters. West Virginia, for instance, piloted a block chain-based mobile voting app for these voters during its 2018 primary and general elections.

Benefits of Block Chain Technology:

Block chain has the capability to revolutionize the electoral process. By providing secure, transparent and decentralized systems it has a lot of benefits to the voting process. From transparency and security to

accessibility and anonymity it has the power to change the voting process and has to power to create trust and increase participation in democratic practices.

Transparency and Immutability: Block chain technology gives a transparent and rigid ledger where each vote will be safely recorded, making sure its tamper-proof. Using block chain can make voting process transparent where anyone can see the transaction of voting system and casting of vote will be anonymous by integrating the block chain. This creates trust in the integrity of elections .Immutable records can prevent manipulation and deletion of votes.

Enhances the Security: Use of block chain technology can secure votes against unauthorized access, tampering and fraud by usage of cryptographic techniques. The decentralized nature can further reduce and eliminate points of failure and reduce risks of attacks manipulation. Each vote can be cryptographically signed, making it difficult or nearly impossible for malicious acts to counterfeit votes without deducting them.

Decentralized System: The voting system based on block chain technology works on decentralized networks where no single entity has control and the central authority has no authority to manipulate the outcomes. Through consensus algorithms like Proof of stake it can create trust among the voters. The approach of a decentralized system ensures transparency, fairness and security in the voting process.

Accessibility: By introducing these online voting solutions, block chain can increase the accessibility for individuals. Safe digital identities and authentication mechanisms can verify the vote and their eligibility, making more people participate in elections irrespective of their geographical locations.

Accountability: Block chain enables transparency. This transparent record holds election administration accountable for their actions, reducing manipulation of the votes. The access to trace and verify every transaction enhances accountability and fosters trust among the people .It also provides an immutable audit trail of vote casted, giving access to check and verify the integrity of the results.

Anonymity and Privacy: Block chain provides both anonymity and privacy while voting.

While voting the voters can use private keys to keep them anonymous. It ensures the voters to vote without revealing any information and that each vote is confidential and not manipulated or forced upon anybody. This encourages more people to take part in the voting process.

Improved Processing Time: Technology of block chain has increased the speed and efficiency of the vote process. Current voting process takes time to gather and process answers. Voting stations are in different areas across the country and take time and can be difficult to collect quick and efficient information. It creates cost and time issues .With block chain this issue can be resolved as results can be collected and processed quickly and efficiently.

Limitations of Block Chain Technology:
Private Keys: Private keys are crucial for security in block chain. They act as passwords to access crypto wallets and authorize transactions. Losing a private key means losing access to funds, necessitating the storage of multiple copies. However, if someone gains access to a copy, it compromises wallet security, and changing a generated private key is impossible.

Network Security Disruption: Block chain's security can be compromised through a 51% attack, where a miner controls over 50% of the network's computing power. This allows them to prevent confirmations of transactions, pause payments, and execute double spending. While less likely on established block chains like Bitcoin, newer ones are vulnerable.

High Implementation Costs: Implementing block chain in a company requires extreme investment in hiring block chain developers, creating applications, and meeting hardware requirements, discouraging many companies due to the capital-intensive nature.

Environmental Impact: Continuous operation of high-powered systems for mining and validation consumes significant energy, posing environmental concerns, leading to regulatory actions like China's ban on block chain mining in Inner Mongolia.

Storage and Scalability Challenges: Block chain faces issues with storage and scalability as the network grows. Increasing data volume requires constant upgrades to storage capacity, which may eventually surpass available resources. Additionally, scalability problems arise due to block size limitations, slowing down transaction validation and impacting efficiency.

Anonymity and Immutability Trade-offs: While block chain provides anonymity by masking user identities through wallet addresses, this feature can be exploited for money laundering. Moreover, the immutability of block chain data, while enhancing security, poses challenges when errors need correction or updates are required.

Hard Forks: Occur when block chain members want to implement new rules or create new cryptocurrencies, resulting in separate entities and operational challenges.

Legal and Regulatory Challenges: Block chain faces regulatory hurdles worldwide, with legal restrictions prohibiting its use in some regions.

Understanding these drawbacks is crucial for potential investors or implementers of block chain technology, as it is still evolving and undergoing transformation.

GOVERNMENT INITIATIVES FOR BLOCKCHAIN TECHNOLOGY

The PDF titled "Block chain: The India Strategy Towards Enabling Ease of Business, Ease of Living and Ease of Governance" provides an in detail exploration of block chain technology and its potential applications in the context of India. The document emphasizes the functional view of block chain, aiming to guide decision-makers in identifying cases that could benefit from the technology.

The paper starts by emphasizing the intricacy of trust systems in cooperative ventures, using the example of the production of a pencil to illustrate the need for trust and coordination in markets. It explains how traditional dispute resolution mechanisms, facilitated by intermediaries such as banks, regulatory bodies, and governments, can introduce inefficiencies and challenges.

Block chain is proposed as a new form of intermediary, referred to as a "trusted intermediary," that encodes the rules of transactions in computer programs and allows entities with varying interests can cooperate on a ledger that cannot be altered.

This approach is believed to seamlessly adhere to the rules and fill transaction conditions without the need for traditional intermediaries.

Acknowledging the transformative potential of block chain, the document emphasizes the importance of understanding the functional definition of distributed ledger technologies, legal and regulatory considerations, and specific use cases where block chain adds value.

The paper discusses several initiatives undertaken by NITI Aayog, a policy think tank of the Government of India, in collaboration with government and technology partners. It identifies challenges faced during block chain implementation and presents potential use cases for governments and businesses to explore.

The document concludes with a forward-looking perspective, encouraging dialogue on the subject and promoting the effective leveraging of block chain technology for societal betterment.

In summary, the PDF provides a comprehensive overview of block chain technology, its application in the Indian context, initiatives undertaken, challenges faced, and potential use cases, with a focus on enabling ease of business, ease of governance, and ease of living.

IMPLEMENTATION

The Election Commission of India and IIT Madras are teaming up to use a new technology called block chain for online voting. This collaboration, with support from the Centre for Development of Advanced Computing (CDAC), aims to make elections safer, ensure voter registrations are correct, make voting easier for everyone, and encourage more people to vote. Block chain is chosen because it's secure, transparent, and can't be changed once something is recorded. In this system, each voter will get a special digital token that they can use to vote online. They just need to send this token to their chosen candidate. This method is safer than using paper ballots because it's harder to tamper with. The government is taking a keen interest in exploring new ways to improve elections, showing that they're serious about making voting better for everyone.

Block chain technology is being considered due to its potential to address several critical issues associated with electronic voting, including election security, voter registration integrity, poll accessibility, and voter turnout. The inherent qualities of block chain technology make it an attractive option for enhancing the trustworthiness and efficiency of e-voting systems:

Decentralization: Block chain uses a network of computers spread across different places. This setup means that no single person or group controls the whole system, making it harder for anyone to cheat or interfere with the voting process.

Transparency: Every action recorded on a block chain can be seen by everyone in the network. Each computer in the network keeps a copy of the block chain, so every vote can be checked and verified in real-time. This openness builds trust in the fairness of the voting process.

Immutability: Once something is recorded on a block chain, it's nearly impossible to change it. The special coding used in block chain technology ensures that past votes are securely stored and can't be altered later. This feature helps keep election records accurate and stops anyone from cheating.

Encryption: In the proposed e-voting system, voters get a unique digital coin that they use to cast their votes. Each candidate has a special digital "wallet" where these coins are sent. This way, votes are recorded securely and anonymously. This encryption makes it very hard for anyone to mess with the votes, which is a problem in traditional paper-based voting systems.

By using these features of block chain technology, the new e-voting system tries to create a more dependable, transparent, and easy-to-use way of voting. But before it's used widely, it's important to solve any technical issues and make sure the system is strong and secure.

What we know so far about the Technology:
1. The voting system will utilize the Block chain platform.

2. Voters will receive designated times and places to cast their votes.

3. Voter identification and authorization will be conducted using the Election Commission's secure biometric and webcam system called ERO Net.

4. Once a voter's identity is confirmed, the system will create a personalized e-ballot known as a "Smart Contract."

5. When a vote is cast, the Smart Contract will be executed, encrypting the vote securely and generating a Block chain hashtag.

6. The Block chain node or hashtag will be sent to candidates and political parties after the vote is recorded.

7. Encrypted votes will be validated before counting to ensure they haven't been tampered with.

8. The technology will undergo rigorous testing before consulting stakeholders.

9. Changes in election rules and laws will be made, and the technology will be tested under real conditions.

10. The technology aims to provide voting facilities to migrants who cannot travel to their constituencies during elections, as demanded by political parties.

CONCLUSION

Block chain technology has the potential to completely change how elections are conducted in India. It can make the process more transparent, secure, and accessible than ever before. Block chain is like a digital ledger that saves transactions in a safe and transparent way. It's decentralized, meaning information isn't stored in one central location but spread out across many computers. This makes it much harder for anyone to tamper with the data, ensuring the integrity of the election results.

Countries like Estonia and Switzerland are already experimenting with block chain for voting, and India is looking to follow suit. The Election Commission of India, along with institutions like IIT Madras and government bodies, is exploring the idea of using block chain for e-voting. This shows a proactive approach to embracing technology for democratic processes.

One of the main benefits of block chain for elections is its capacity to ensure the integrity and security of the voting process. Through advanced cryptographic techniques block chain can prevent unauthorized access, tampering, and fraud. This means voters can have confidence that their votes will be counted accurately. Block chain also offers transparency by allowing real-time verification and auditing of voting transactions. Every vote cast is securely recorded on the block chain, visible to all participants in the network. This fosters trust in the electoral process. Moreover, the immutable nature of block chain means that once data is recorded, it cannot be changed again, reducing the risk of manipulation or deletion of votes. Plus, block chain technology can make voting more accessible. It enables remote voting options and provides secure digital identities and authentication

mechanisms. This can help increase voter turnout, especially among geographically dispersed, promoting inclusivity and democratic participation.

However, there are challenges to overcome. Implementing block chain-based voting systems can be expensive, and there are concernment about network security, scalability, and regulatory issues. It's crucial to address these challenges to ensure the widespread adoption and success of block chain for elections.

In conclusion, block chain technology holds the promise to transform India's electoral process fundamentally. Through collaboration with academia, government, and the technology sector, leveraging the unique features of block chain can lead to the establishment of a voting system that is transparent, secure, and accessible. Adopting these innovative solutions is vital for enhancing India's democratic framework, guaranteeing fairness and inclusivity for every citizen.

BIBLIOGRAPHY

REFERENCES

1. Block chain technology, as described by Sankar et al. (2017), enables the creation of an immutable, distributed, and publicly accessible repository of data (ledgers).

2. Hughes et al. (2019) highlight that block chain is not a uniform technology with defined services but rather a foundational technological framework that enhances the security and privacy of digital transactions across various domains and applications.

3. Centobelli et al. (2021) emphasize the primary advantage of block chain technology, which lies in its ability to enhance privacy and security, making it a valuable tool for gatekeeping privacy in digital transactions.

4. According to Ingold & Langer (2021), block chain technology is often perceived as complex, and typical users may struggle to understand its various use cases, services, and benefits, including the function of its underlying infrastructure.

5. Aujla et al. (2020) define block chain as a technology based on distributed ledgers, cryptographic security protocols, and consensus mechanisms, which collectively ensure the integrity and security of data stored on the block chain.

6. Cuccuru (2017) describes how a distributed ledger, an essential part of block chain technology, works. It allows data to be organized into blocks, which are then copied and shared across many computers in the network.

OTHER SOURCES

https://www.investopedia.com/terms/b/blockchain.aspv

https://www.ibm.com/topics/blockchain

https://www.niti.gov.in/sites/default/files/2020-01/Blockchain_The_India_Strategy_Part_I.pdf

https://cointelegraph.com/learn/how-blockchain-can-transform-government-sector

https://www.moneycontrol.com/msite/wazirx-cryptocontrol-articles/how-blockchain-can-facilitate-free-and-fair-elections-in-india/

https://inc42.com/buzz/india-explores-blockchain-based-e-voting-by-2024-general-elections/

POWER OF NEUROMARKETING: - UNRAVELING THE MIND OF CONSUMER

Ms. Yashvi Gandhi and Ms. Khushi Kakadiya
First Year BMS Student at Usha Pravin Gandhi College of Arts, Science & Commerce, Mumbai, India

ABSTRACT
Who would have thought that marketing of products and services can be linked with neuroscience. This research paper intends to make the readers aware about a very widely used marketing research activity called Neuromarketing. Neuromarketing has gained popularity these days but is still unknown to many people, the consumers are not even aware that the brands are influencing their purchasing decision by understanding and observing their subconscious and conscious mind. Various techniques used under this field are FMRI, Scent marketing, facial coding, eye tracking, EEG etc. The research paper provides detailed information about the origin, techniques of neuromarketing. It also provides different case studies where huge brands like Netflix, Spotify, and Starbucks have used neuromarketing strategies to persuade customers. Day to day scenarios where neuromarketing strategies are used and consumers do not even realize are also mentioned in the paper.

Keywords: Neuromarketing, Neuroscience, FMRI, EEG, Facial coding, Eye tracking

INTRODUCTION
Have you ever wondered why the section of Chocolate, Candies are kept near the Checkout Counter, or whenever you go to a Watch showroom all the watches are at time 10 past 10 (10:10). If we talk about the first example, chocolates are rarely on the list of a consumer, they are basically called Impulse goods, and are bought suddenly without any planning. Anyone may just see them and get an urge to buy it and that's exactly why chocolates are kept near the checkout counter as the checkout line is usually long and the section near the checkout counter are the most highly noticeable place which guarantees a look even if you have no intention of buying at all.

If we talk about the second example, all the Watches that are showcased are at the time 10 past 10 because it represents as if the watches are smiling and this creates a positive impact on the emotions of a consumer. The hands are Spread apart and are symmetrically balanced because of which it looks attractive. This here is called as Neuromarketing. There is a reason for each and every step that the Brands take. Neuromarketing Is Basically a market research activity to study the Brain of the consumer, and to observe how people's brain responds to advertising or brand related Messages.

REVIEW OF LITERATURE
It was believed that the term neuromarketing was coined by Dutch marketing professor Ale Smidt in 2002, but one of the first experiments related to this field was conducted by US Marketing Professor Gerald Zaltman in the 1990s . He basically created a Zaltman Metaphor Elicitation Technique {ZMET} . It was a research tool used for understanding and exploring the unconscious and conscious thoughts of the consumer. He did this with the help of specific sets of images which would depict positive emotional response, and in turn result in potential purchase. This technique created by Zaltman was appreciated by many huge companies such as Procter & Gamble, Coca Cola, Nestle and later these companies hired the professor to conduct the brain scan of the consumer.

Read Montague professor of neuroscience at Baylor College of Medicine in 2003 performed an intellectual piece of neuromarketing research and published the research in *Neuron* in 2004. Basically, the study revolved around two strong brands that are Pepsi and Coca Cola. The subjects were asked to drink either Pepsi or Coca Cola while their brains were scanned in FMRI. The conclusion of the study was fascinating. It was found that different parts of the brain light up if people are aware or not aware of the brand they consume. Basically, the study suggested that a strong brand such as Coca Cola has the power to "own" a piece of our frontal cortex. So according to the study, when people know they are drinking Coca Cola, they actually say they prefer the Coke brand over Pepsi and their EF lights up. However, when they don't know which brand they are consuming, they report that they prefer Pepsi instead. This research was enough to prove the potential and power of neuroscience.

The Consumer Mind is a book published in 2012 by Martinez. According to him, the consumer's mind is classified into 4 categories {what they say, what they think, what they do, what they feel} Martinez makes a comparison between traditional and neuromarketing approach, and points out that there is huge difference between what the consumers speak and what they actually feel. He states that neuromarketing will help marketers collect more specific and accurate information about consumers, than through use of traditional

marketing tools such as surveys and interviews. He suggests that the best way to apply neuroscience in relating to marketing is through the combination of qualitative, quantitative, neuroscience research thereby giving rich quality of information.

RESEARCH METHODOLOGY:-
The study is based on secondary data which is obtained from various websites, books, publications etc. All of these are mentioned in the bibliography.

OBJECTIVE:
- Analyzing the depth of Neuromarketing.

- To study the result of Neuromarketing.

- Making a comparative analysis between neuromarketing and traditional marketing.

NEUROMARKETING TECHNIQUES:
1) **EEG- Electroencephalography:** This neuro research technique basically measures brain activity. It is used to predict consumer behavior. EEG measures the electrodes placed on the surface of the scalp; it captures the activities displayed by neurons. EEG results are perfectly accurate and allow marketers to understand the initial impression of the consumers. EEG is a great technique to discover the perfect price for your product or services but not for understanding complicated consumer behavior because it only measures the cerebral cortex and not deeper areas.

2) **Eye Tracking:** It is a tool which tracks the look of the client on the product. It basically helps to measure the eye movements and to understand the amount of time spent on a product. It helps to determine that point which produces more attention. This is generally used in departmental and supermarket stores.

3) **FMRI- Functional Magnetic Resonance Imaging:** It basically refers to measuring changes that happen in blood flow due to brain activity. It's a technique used for both clinical and research purposes.

FMRI is a very expensive technique but provides high quality information and is one of the best neuromarketing techniques.

To conduct the test, the subject is said to lie on the back of bed and through the electric control is then made to slide inside the machine, then the person is asked to perform a specific task watching an advertisement, video, view product, packaging, etc. A recording of brain image with specific statistical data is carried out.

4) **Facial Coding:** It is a tool used to measure human emotions through facial expressions and reactions of the consumer. The brands can understand the impact of its product, service on the audience.

It uses software and webcams, which observes the real time facial expression of the consumer and directs the input directly in the software

5) **Color Psychology:** Neuromarketing research shows different colors have different impacts on consumers and can affect different parts of the brain that influence consumers purchasing decisions.

CASE STUDY:
Following are the real-life examples of brands that uses neuromarketing techniques:

1. Company called Frito-Lay launched a very well-known product called Cheetos. Back in the day there was a controversy whether the orange cheese dust of the Cheetos was liked by the consumer or not. By asking the target market, conducting surveys it was found that getting the sticky orange dust everywhere was a limitation but in reality, when a neurological test was conducted it was found that the orange dust was one of the major reasons people loved Cheetos but it is just that people don't admit or even know about that. The EEG Result showed positive feedback.

2. Starbucks also uses the method of scent marketing to capture and lure the customers. It diffuses the air with the fragrance of hot chocolate, coffee and other bakery products thereby creating a warm, inviting atmosphere.

3. Companies like Netflix, Coca Cola use the color red for their logo to represent   power, energy. Starbucks, Spotify use green color which is the easiest and requires no adjustment when it hits the retina. Therefore, depicting peace and calmness.

4. Spotify with the help of a market research firm conducted new techniques to identify the most suitable rhythm for the music app. They used a group of people to monitor their brain systems by making them hear

different music samples and identified the parts of music that peaked their interest. Then finally selected the most recurring beats to create final audio for the app. Audio resulted to be superhit gained huge popularity.

Comparative Analyses:

Major Difference between traditional and neuromarketing is that the traditional form includes conducting surveys, questions, and interviews of the focus groups. It is very difficult to find out what the customer actually feels about the product because generally customers do not actually reveal their opinion or preferences, majorly because of time constraints and pressures.

Secondly most of the consumers are not even interested in filling out the surveys, so they randomly fill out the answers. Neuromarketing removes the gap between the recorded answers and emotionally correct answers.

Neuromarketing technology basically taps into the consumer's subconscious and identifies the true feeling the consumer has about the product.

Nano- Marketing:

Although neuromarketing techniques provide accurate results and have much more benefits than the conventional approach, it presents several drawbacks such as the techniques used are very expensive, and complicated to operate. It also has certain ethical concerns.

The information or knowledge received via neuromarketing can be used for unethical purposes such as persuading and manipulating the decisions of the consumers.

This has led to the emergence of Nano marketing. It is a new approach to neuromarketing. Nano-Marketing tries to provide measures, solution to the drawbacks created by neuromarketing. Here the complex, dynamic tools, machines are simplified into a smaller one. The devices are easy to carry and are portable. Headsets, waistband that measure the emotional activities of the consumers are some of the nano-marketing devices. Through nano-marketing different technologies are combined to get high quality information and accurate results.

CONCLUSION:

Overall, the study interprets that marketing is related to neuroscience and psychology. The neuromarketing strategies and tools are used on daily basis and by many huge brands. Consumers do not even realize that each and every minor steps taken by the brand has a very broad reason to it. Huge brands through neuromarketing techniques have huge influence on the consumers conscious and subconscious mind. The findings of the paper basically inform that what consumers speak and what they actually feel are 2 different areas. Neuromarketing techniques helps the brands to decode consumer behavior and understand its taste and preferences by tapping into consumers mind and unlocking the secrets that were once trapped within the human brain.

REFERENCES:

http://hdl.handle.net/10603/350875

- Impact Of Neuromarketing Strategies on Consumer Buying Behavior by Sabina A Nair (2020) University of Madras

  http://hdl.handle.net/10603/546000

- A study of Neuromarketing to measure Advertising effectiveness and its Impact on brands in Indian context by Banerjee, Sunanda (2023)

- Neuromarketing: An Emerging Tool of Market Research By Harit Kumar, Priyanka Singh Assistant Professor, Department of Business Administration Pranveer Singh Institute of Technology, Kanpur, INDIA . www.ijemr.net

- Colour Psychology in Branding: The Persuasive Power of Colour www.ignytebrands.com

- All You Need To Know: Facial Coding www.futureproofinsights.ie

- EEG in neuromarketing | Neurensics Neuro Market Research Company www.neurensics.com

- A Brief History of Neuromarketing – Boonmind www.boonmind.com

A MULTIDIMENSIONAL ANALYSIS OF WORK-LIFE BALANCE IN UNDERGRADUATE STUDENTS

Naina Mundhra

Student, SYBMS, SVKM's Usha Pravin Gandhi College of Arts, Science & Commerce

ABSTRACT

Undergraduate students generally confront challenging obligations such as academic evaluation, employment commitments, extracurricular activities, personal health, and preparation for further education or vocational training. This study focuses on the complexities of work-life balance, addressing many problems. The purpose of this study to analyse how these factors impact and influence students' experiences in order to identify potential problems and recommend strategies to promote healthy, balanced, and successful education students' learning and personal development by identifying their individual stressors.

INTRODUCTION

University years are a critical transitional stage for young people. This is a period for wisdom, professional exploration, and personal development. This is also a time to embrace learning, hard work, and a healthy lifestyle.

The concept of student-life balance is at the heart of this dynamic. This focuses on undergraduate students' capacity to manage school, work, and personal identity. Students must balance academic instruction, internships and apprenticeships, university preparation, and personal motivation in furthering their education.

This predetermined measurement rule can be overridden. Time becomes a valuable commodity as students seek for academic success while also establishing their resumes and acquiring crucial professional experience. Pursuing further education or joining a competitive work environment causes stress. Furthermore, disregarding personal health in order to complete educational or professional obligations will have major consequences for the student's body and mind.

It is critical to understand the complexities of student-life balance. It should investigate elements that help or hinder this balance, such as time management abilities, financial limits, access to resources, and personal emotions. Exploring the relationship between student-life balance and general well-being is crucial for building an environment in which graduates may succeed both academically and socially.

STATEMENT OF PROBLEM

This study investigates college students' complex difficulties to attain work-life balance while juggling internships, education, and future goals. It investigates how these factors influence and affect their health, identifies issues, and proposes solutions for a successful and balanced education.

SIGNIFICANCE OF RESEARCH

1. **Improved Knowledge:** This research highlights the problems students face and the importance of work-life balance to their wellbeing.

2. **Developing Resources:** Research studies suggest developing resources and support to help students manage their time effectively and sustainably. Good health.

3. **Suggestion:** This research will be useful in advocating for policies that improve student health and create more educational management.

RESEARCH OBJECTIVES

1. Comprehensive assessment of perceived work-life balance among undergraduate students.

2. Recognition of the obstacles and sources of stress in preserving a work-life balance.

3. An examination of the efficacy of the primary coping strategies employed.

4. Evaluation of the relationship between work-life balance, holistic performance, and development.

5. Investigate into how support networks affect students' capacity to strike a work-life balance.

6. Put forward recommendations and intervention suggestions to enhance work-life balance.

RESEARCH METHODOLOGY

Type of Research: The research paper considers mixed-methods research, incorporating both quantitative and qualitative approaches.

Universe: The population (universe) for this study is all undergraduate students enrolled in accredited colleges and universities. However, due to feasibility, the research focuses on a specific region, country, or type of institution.

Sample Size: A sample size 100-150 participants is considered for quantitative analysis.

Data Need: The research paper requires collecting data on various aspects of student life balance, including:

1. **Academic Workload:** Course credits, study hours, academic stress levels

2. **Professional Pursuits:** Internship details, professional course enrolment, career aspirations

3. **Personal well-being:** Sleep habits, physical activity levels, mental health assessments

4. **Extracurricular Activities:** Participation level, types of activities

Sources of Data:
1. **Primary data:** Online surveys and personal interview.

2. **Secondary data:** Existing data from previous studies focusing on related topics.

LIMITATION OF RESEARCH
Generalizability: Findings might not be generalizable to the entire population of undergraduate students due to factors like sample size and time constraints.

Self-reporting bias: Participants might not always report information accurately, which can affect the validity of self-reported data.

LITERATURE REVIEW
Sprung, J., & Rogers, A. (2020). Work-life balance as a predictor of college student anxiety and depression. Journal of American College Health, 69, 775 - 782. https://doi.org/10.1080/07448481.2019.1706540.

Cada, L., & Jr.Ed., D. (2021). Balancing Work-Life Demands of Students in a Graduate School Institution in Manila. International journal of scientific and research publications, 11, 290-295. https://doi.org/10.29322/IJSRP.11.04.2021.P11238.

Yusuf, J., Saitgalina, M., & Chapman, D. (2020). Work-life balance and well-being of graduate students. Journal of Public Affairs Education, 26, 458 - 483. https://doi.org/10.1080/15236803.2020.1771990.

Comprehensive assessment of perceived work-life balance among undergraduate students.
In examining undergraduate students' perceptions of work-life balance through, the exploration has revealed multifaceted insights into the complex interplay of academic, personal, and aspirational factors.

Key Findings:
- The study has unveiled a spectrum of perceptions regarding work-life balance, ranging from those who navigate it with ease to those who face substantial challenges.

- A significant proportion of participants acknowledge the impact of coursework demands on their ability to strike a balance.

- Students weigh their future aspirations as significant contributors to their current work-life balance perceptions.

- Internship commitments emerge as influential factors affecting work-life balance, shedding light on the delicate balance between experiential learning opportunities and academic responsibilities.

- Personal time, a vital aspect of work-life balance, is shown to be valued by participants.

Recognition of the obstacles and sources of stress in preserving a work-life balance.
The investigation into the individual stressors and obstacles contributing to work-life imbalance among undergraduate students has revealed a complex tapestry of influences originating in academic, social, and personal dimensions.

Key Findings:
- This study highlights the significant impact of academic pressures on work-life balance. Students sometimes feel unbalanced due to tight schedules, demanding courses, and deadlines.

- Social dimensions emerge as influential stressors, with peer pressure, relationship dynamics, and societal expectations weighing heavily on students.

- Personal commitments, encompassing familial responsibilities, financial pressures, and health concerns, surface as potent contributors to work-life imbalance.

An examination of the efficacy of the primary coping strategies employed.
Research on students' coping mechanisms has revealed a wide range of approaches, including time management, mindfulness, and seeking social support.

Key Findings:
- The study of how students cope with stress has revealed a wide range of coping techniques, providing insight into the popularity and efficacy of methods including setting priorities for your time, practicing mindfulness, and reaching out for social support.

- Students confirm to the usefulness of mindfulness and meditation as useful strategies in stress management. Mindfulness techniques can improve emotional well-being and resilience when dealing with academic stress, according to the study.

- Seeking social support is identified as a prevalent and impactful coping mechanism. Whether through peer interactions, family connections, or professional counselling.

- The results show that students frequently use a variety of coping mechanisms. For instance, those who successfully manage their time may also practise mindfulness or look for social support.

Evaluation of the relationship between work-life balance, holistic performance, and development.
This analysis highlights how important it is to strike a work-life balance in order to promote holistic performance and personal growth.

Key Findings:
- The study clarifies that holistic performance is a multidimensional construct that is not exclusively dependent on academic achievements. It includes achieving scholastic success, developing personally, maintaining emotional stability, and honing talents and abilities that are essential for future undertakings.

- It becomes clear that work-life balance and holistic performance are positively correlated, meaning that students who successfully balance their academic obligations with extracurricular and personal activities typically perform better overall.

- It has been determined that work-life balance serves as a stimulant for the acquisition of critical life skills.

- Students who successfully manage their time and place a high value on their personal health will be in a better position to develop abilities including resilience, effective communication, and time management.

- Students who maintain a well-balanced lifestyle, which includes managing their stress and setting aside enough time for themselves, demonstrate stronger emotional fortitude and a more optimistic outlook on their academic and personal goals.

Investigate into how support networks affect students' capacity to strike a work-life balance.
Based on the knowledge gathered from participants and the larger academic community, the following workable tactics and regulations aim to improve undergraduate students' work-life balance:

Key Findings:
- Emotional and financial assistance from families emerges as a cornerstone, emphasizing the need for open communication and understanding between students and their families.

- The study underscores the importance of positive social dynamics, collaborative study environments, and social activities in enhancing work-life balance.

- University resources, including counseling services, academic advisors, and time management workshops, play a vital role in shaping students' ability to achieve work-life balance. The findings suggest that the accessibility and effectiveness of these resources impact students' overall well-being.

Put forward recommendations and intervention suggestions to enhance work-life balance
Following are practical strategies and policies based on the insights gained from participants and the broader academic community for improving work-life balance for undergraduate students:

1. Creating and promoting integrated support services in the form of a central hub that houses time management training, counselling, and academic advising.

2. Examining the possibility of implementing flexible class schedules that would let students tailor their coursework to fit in with their personal and professional obligations.

3. Creating regular channels of contact between students, instructors, and academic advisors to promote understanding of unique difficulties and offer prompt assistance.

4. Putting in place tools, workshops, and campaigns to raise awareness of mental health concerns in order to lessen stigma and motivate students to get help for stress-related problems.

5. Encouraging and providing students with flexible work options that fit their academic schedules, both on and off campus. Developing policies that encourage open communication between students and family members, fostering understanding of academic challenges and providing emotional and financial support.

6. Creating guidelines that promote open lines of communication between kids and their families, encouraging comprehension of the difficulties they face in school, and offering both financial and emotional support.

7. Putting into practice laws that encourage social inclusion, like those pertaining to study groups, mentorship programmes, and structured stress-relief activities.

8. Provide regular channels for students to voice problems, offer recommendations, and assess how well support programmes are working.

9. Forming alliances with neighbourhood groups to offer extra services like stress-reduction and money management seminars.

10. Creating programmes for current students to engage with alumni mentors who may offer advice and insights on striking a work-life balance.

STUDY ON THE IMPACT OF SOCIAL MEDIA USAGE ON GENZ's MENTAL HEALTH AND SOCIAL BEHAVIOR

Dr. Naresh Sukhani, A.[1] and Pankhil Kawdia[2]

[1]Professor, BMS Department, Usha Pravin, Gandhi College of Arts, Science & Commerce

[2]SYBMS, Usha Pravin Gandhi College of Arts, Science & Commerce, Mumbai

ABSTRACT

This study explores the effects of social media on Generation Z (Gen Z), emphasizing how it affects social behavior patterns and mental health in particular. Its study goals include examining how social media affects Generation Z, understanding how it affects their mental health, and examining the social behavior patterns that result from their use of social media. Through a combination of empirical analysis and literature evaluation, the study seeks to provide important new understandings of how social media platforms influence Gen Z's mental health and behavior. The study questions examine the subtleties of social media use and how it affects Gen Z's day-to-day activities. They also look into the influence of peer interactions and social media influencers on decision-making. The survey also closely examines Gen Z's knowledge of and worries about possible risks related to using social media. Through tackling these questions, the study advances a more sophisticated comprehension of the complex interactions among Gen Z's use of social media, mental health, and social behaviors. The ultimate goal of the research is to guide legislative measures and educational programs that are intended to improve the well-being of young adults.

Keywords: GenZ, Social Media, Mental Health, Social Behaviour, Privacy Concerns, Digital Literacy, Fear Of Missing Out (FOMO), Social Comparison, Digital Addiction, Body Image, Potential Risks, Information Overload

INTRODUCTION

Social media is a type of communication that is done online. Social media platforms facilitate online content creation, information sharing, and conversation among users. Social media comes in a variety of formats, such as wikis, blogs, podcasts, virtual worlds, instant messaging, photo and video-sharing websites, blogs, micro-blogs, and social networking sites. Social media is used by billions of people globally for networking and information sharing. Social networking gives you the personal opportunity to interact with loved ones, discover new things, pursue your hobbies, and have fun. By interacting with other professionals in your business, social media can help you expand your professional network and deepen your understanding of a certain subject**.** At the company level, social media allows you to converse with your audience, gain customer feedback, and elevate your brand. (University of South Florida)

Gen Z is currently the second-youngest generation, with millennials before and Generation Alpha after (McKinsey & Co - March 2023). Since it can be challenging to distinguish between different generations and their zeitgeists, some sources provide the precise year range of 1997–2012; nonetheless, the years covered are occasionally disputed or questioned (Alison Elridge, 2023 Britannica). The internet had just become widely used when the first members of Generation Z were born. The first generation to have grown up with the internet ingrained in daily life is known as "digital natives." Globally, Gen Z is expanding quickly; by 2025, they will **account for 25% of the population in the Asia-Pacific area (McKinsey & Co., March 2023).**

Gen Z uses online socializing primarily because of their need to be educated and involved with others. Z'ers who are 14-25 years old have more tendencies to prefer online social sites for communicating and interacting with people they know than other generations and are happy and feel it's important to actively remark on the products, services, or topics that they use or are otherwise interested in; in addition, they respect other people's opinions (eMarketer, 2011). Research has been done on Gen Z's growing use of social media, but more needs to be done on their usage habits and the behavioral effects of social media. This generation prefers to participate in online communication and stay connected through readily available technology; they are active contributors, heavy users of online content, and experts in mash-ups and creativity (Gyan Prakash Yadav. Jyotsna Rai, 2017, research gate)

The majority of Gen Z and millennial respondents check social media many times a day.

More than one-third of Gen Z respondents claim to spend more than two hours a day on social media platforms; millennials, on the other hand, are the most active users, with 32% saying they post once a day or more. It is debatable if Gen Z respondents' less active usage of social media is due to their increased self-awareness and prudence, their reluctance to commit, or their comfort level with passive social media use. According to studies,

passive social media use—such as scrolling—may eventually cause a deterioration in one's subjective well-being. 1. (Cherryl Healy, Kana Enomoto, Andrew Doy, and Eric Coe, 2023 McKinsey)

RESEARCH METHODOLOGY

Target Group Selected:
The respondents selected for this research study were the Gen Z population from the age group of (14-26). The respondents were presented with a questionnaire to collect their responses.

Research Objectives:
1. To study the Impact of Social Media on GenZ.

2. To understand the impact of Social media on GenZ's Mental Health.

3. To understand the social behavior patterns due to GenZ's social media consumption.

Research Questions:
1. How does Social Media consumption affect the Mental Health of GenZ?

2. How do GenZ's behaviors change socially due to Social Media usage?

Importance of the study:
The amount of social media content consumed has increased dramatically, and this has had a variety of effects on the mental health and social behavior of Generation Z. Many of the changes in Gen Z's daily lives are a result of these factors. This study will contribute to our understanding of the complex ways that social media affects Gen Z's day-to-day existence.

REVIEW OF LITERATURE
For Generation Z (GenZ), social media has become an essential aspect of everyday life, having a significant impact on their interactions, social behaviors, and mental health. A great deal of research has been done to comprehend the complex effects that social media platforms have on the social dynamics and psychological health of Generation Z members.

Social Interaction and Connectivity:
Social media platforms serve as powerful tools for facilitating social interaction and connectivity among GenZ individuals (Turel & Serenko, 2012). Through platforms such as Instagram, Snapchat, and TikTok, GenZ members can connect with peers, share experiences, and maintain relationships irrespective of geographical barriers (Best et al., 2014). Social media enables GenZ individuals to form diverse social networks, fostering a sense of belonging and community (Vannucci et al., 2017).

Social Comparison and Self-Presentation:
The prevalence of social comparison on social media platforms has been linked to both positive and negative outcomes for GenZ individuals (Vogel et al., 2014). While exposure to idealized images and lifestyles may lead to feelings of inadequacy and low self-esteem (Fardouly et al., 2015), social media also provides opportunities for self-expression and identity exploration (Nesi et al., 2018). GenZ individuals often engage in curated self-presentation on social media, selectively sharing content that reflects their desired image or identity (Valkenburg et al., 2016).

Cyberbullying and Online Harassment:
The anonymity and accessibility of social media platforms have contributed to the prevalence of cyberbullying and online harassment among GenZ individuals (Hinduja & Patchin, 2010). Negative interactions, such as trolling, harassment, and hate speech, can have detrimental effects on GenZ individuals' mental health and well-being (Sampasa-Kanyinga & Lewis, 2015). Cyberbullying victimization has been associated with increased levels of depression, anxiety, and suicidal ideation among GenZ members (Zimmerman et al., 2015).

Fear of Missing Out (FOMO):
The fear of missing out (FOMO) is a prevalent phenomenon among GenZ individuals, driven by constant exposure to social activities and experiences on social media platforms (Przybylski et al., 2013). GenZ members often experience anxiety and stress when perceiving that their peers are engaging in enjoyable activities without them, leading to compulsive social media use and feelings of social exclusion (Wegmann et al., 2017).

Digital Well-being and Screen Time:
Concerns have been raised about the potential negative effects of excessive screen time and digital device use on the mental health of GenZ individuals (Twenge, 2017). Excessive engagement with social media and digital technologies has been linked to sleep disturbances, decreased self-regulation, and diminished well-being among

GenZ members (Orben & Przybylski, 2019). However, the relationship between screen time and mental health outcomes is complex, with some studies suggesting nuanced associations influenced by factors such as content consumption and online behaviors (Odgers & Jensen, 2020).

RESEARCH MODEL
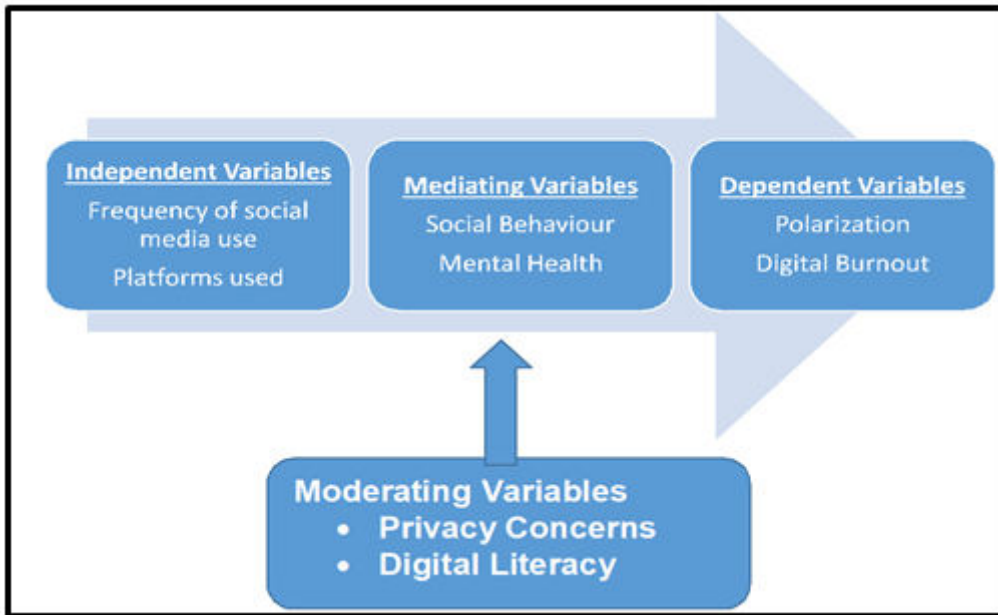
METHODS OF DATA COLLECTION:

To gather information for this study on Gen Z, both primary and secondary sources were used. To investigate how social media affects the mental health and social behaviors of Generation Z, primary data was gathered via questionnaires. Utilizing an online/Google questionnaire form, data has been gathered. Scholars will use a variety of secondary sources, including research papers and websites, for the goal of gathering secondary data. The researcher will create a five-point rating system and multiple-choice questions specifically for this investigation.

LIMITATIONS OF THE STUDY:

Since the study is an individual effort. They are as follows:

1. There are only 227 respondents in the study.

2. Responses are collected mostly from undergraduate students from the age group of 18-21.

DATA GATHERING:

The online/Google forms serve as a platform to spread the survey publically. Respondents are asked to take part in the study individually and virtually using an online survey tool—the online media functions as a platform to spread the survey publically.

DATA ANALYSIS AND INTERPRETATION
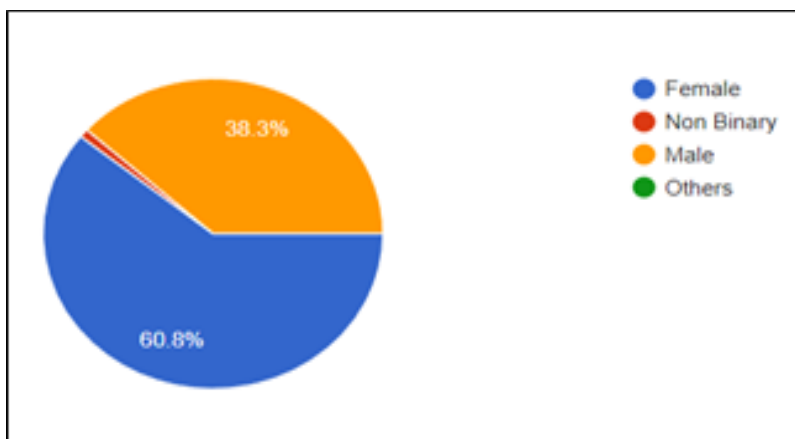
1) GENDER:

INTERPRETATION: Around 60.8% of the population from the responses are females, 38.3% are males and 0.9% are non-binary.
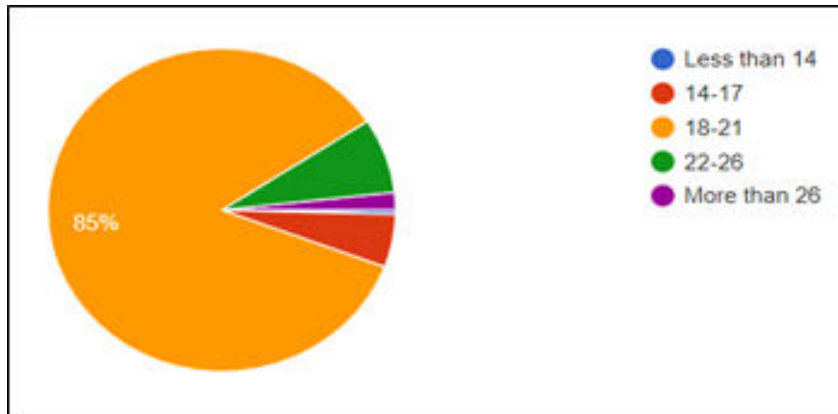
2) AGE:

INTERPRETATION: Maximum respondents (around 85%) belong to the age group of 18-21. The second largest segment of respondents was the age group of 22-26 years.
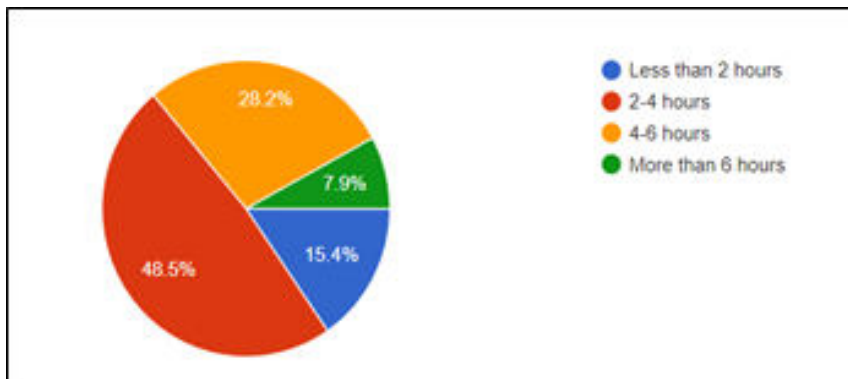
3) SOCIAL MEDIA USAGE:

INTERPRETATION: As observed around 48.5% of GenZ respondents use social media for 2-4 hours daily, and 28.2% of respondents say they spend 4-6 hours daily.
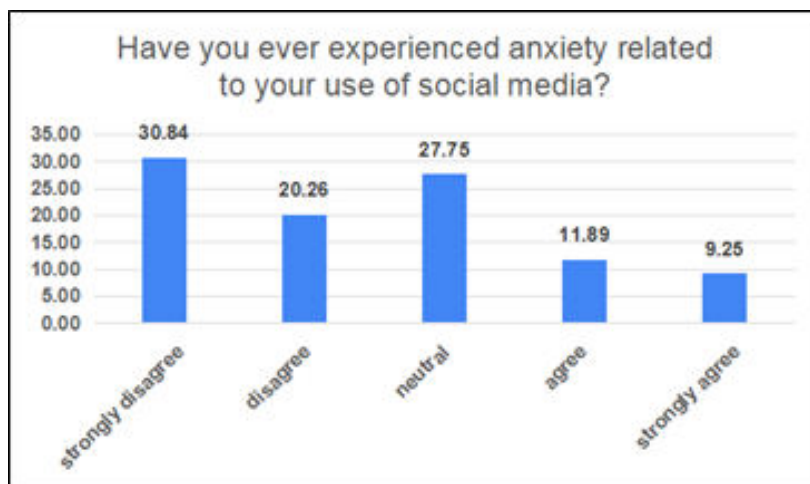
4) ANXIETY:

INTERPRETATION: Maximum respondents (30.84%) have never faced anxiety related to the use of social media. Only 9.25% of the respondents strongly agree whereas 11.89% agree that they have faced anxiety related to the use of social media
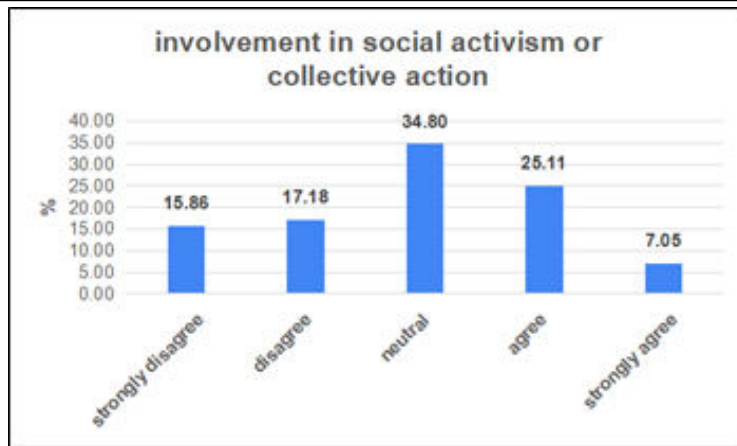
5) SOCIAL ACTIVISM:

INTERPRETATION: The majority of the respondents were neutral (34.80%) when it comes to the increase in involvement in social activism and collective action due to the use of social media, whereas 25.11% of respondents agreed that they have seen an increase in social activism due to social media.
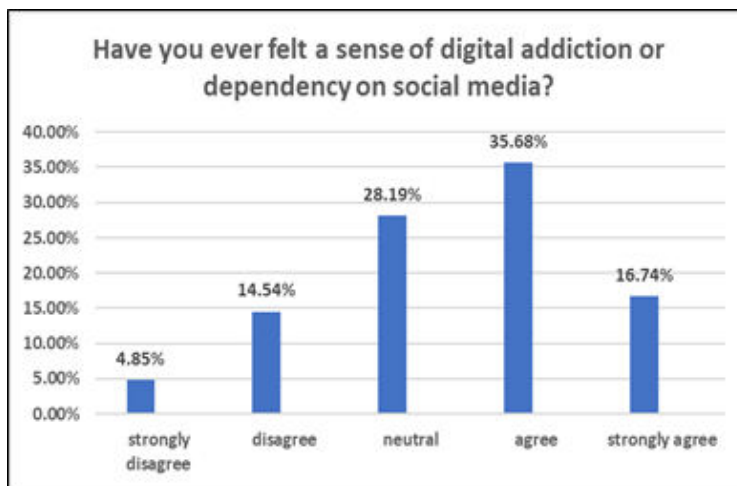
6) DIGITAL ADDICTION AND DEPENDENCY:

INTERPRETATION: Around 52.42% of the respondents either agree or strongly agree that they have felt a sense of digital addiction or dependency on social media, whereas 19.39% of the respondents have either disagreed or strongly disagreed.
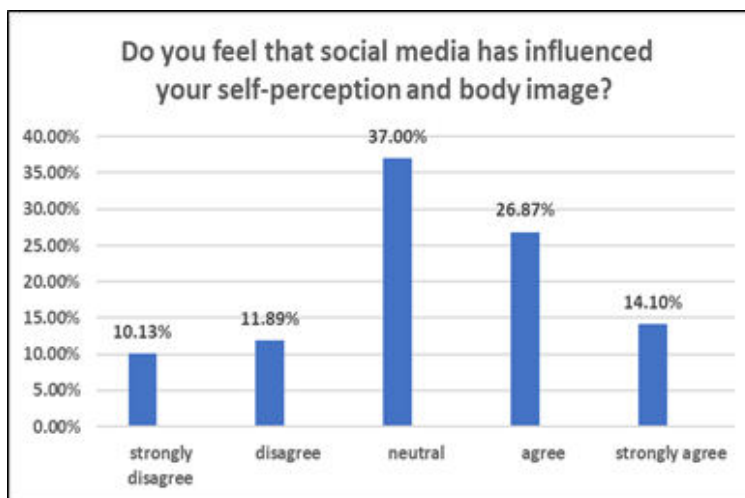
7) SELF-PERCEPTION AND BODY IMAGE:

INTERPRETATION: About 40.97% of respondents say they agree or strongly agree that social media has affected how they feel about their bodies and how they perceive themselves, while 37% say they are indifferent.

How often do you compare your own life to the lives of others on social media?
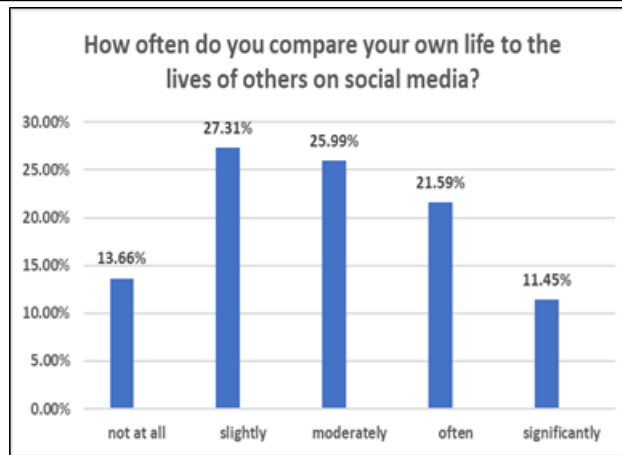
8) COMPARISON OF LIVES:

INTERPRETATION: Around 26% of respondents moderately compare their lives with others' lives on social media, 21.59% often compare, 27.31% slightly compare whereas 11.45% significantly compare their lives with others' lives on social media.

How frequently do you experience "Fear of Missing Out" (FOMO) when viewing others' posts on social media?
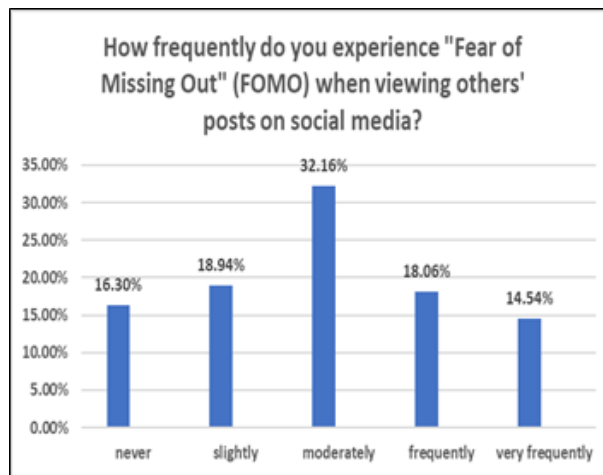
9) FEAR OF MISSING OUT:

INTERPRETATION: Around 32.16% of respondents moderately experience FOMO due to the usage of social media, and 32.6% of respondents frequently or very frequently experience FOMO due to the usage of social media.

How frequently do you find yourself scrolling through social media without a specific purpose or goal?
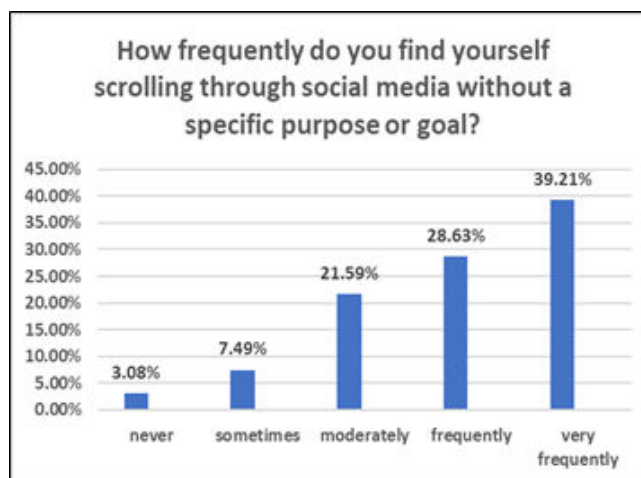
10) SCROLLING WITHOUT PURPOSE:

INTERPRETATIONS: Around 68% of respondents frequently or very frequently find themselves scrolling through social media without a specific purpose or goal whereas only 3.08% of respondents say that they have never scrolled through social media without a specific purpose.

11) QUALITY OF IN-PERSON INTERACTIONS:

INTERPRETATIONS: Around 25.11% of respondents have seen a decline or a significant decline in in-person interactions due to the prevalence of online communication. Around 47.6% of respondents have a neutral stand on the same.
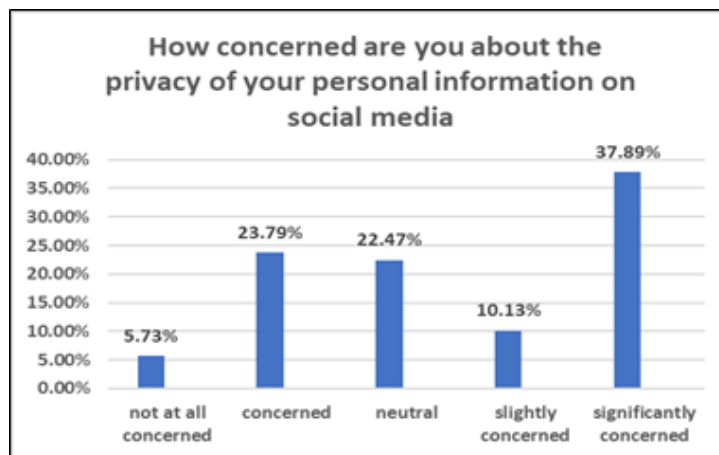
12) PRIVACY CONCERNS:

INTERPRETATION: Around 62% of respondents are either concerned or significantly concerned about the privacy of their personal information on social media, whereas only 5.73% of respondents are not at all concerned.

13) PURCHASING DECISIONS:

INTERPRETATION: While over 27% of respondents disagree or strongly disagree, 42% of respondents agree or strongly agree that social media has influenced their purchase decisions, resulting in impulsive decisions.
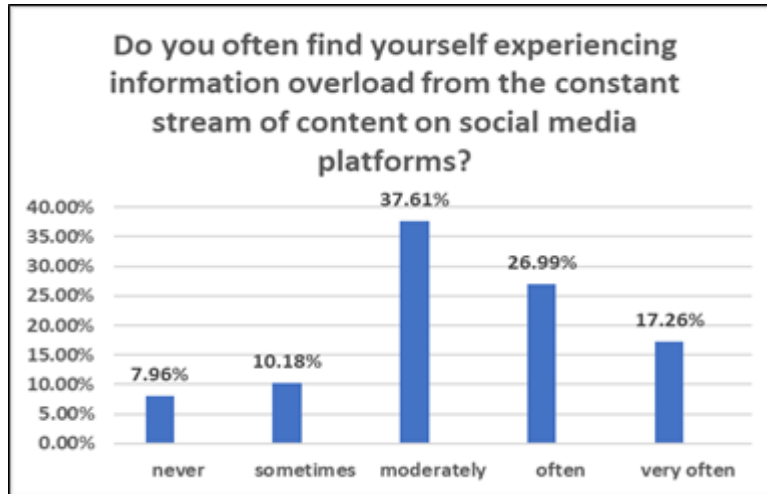
14) INFORMATION OVERLOAD:

INTERPRETATION: Around 44.26% of respondents often or very often experience information overload from constant streaming on social media platforms, 37.61% of respondents moderately experience whereas only around 8% of respondents never experienced information overload.
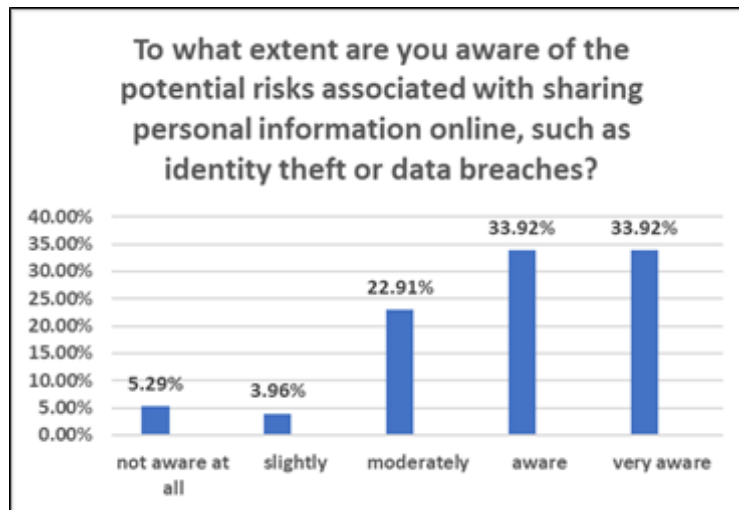
15) AWARENESS OF POTENTIAL RISKS:

INTERPRETATION: Only 5.29% of respondents are completely unaware of the possible risks involved in sharing personal information online, compared to roughly 68% who are either aware of them or very aware of them.

CONCLUSION

1. The majority of GenZ users spend around 2-4 hours daily on social media.

2. When it comes to experiencing anxiety relating to the usage of social media, the majority of GenZ users have not faced anxiety.

3. A quarter of the GenZ population has seen an increase in involvement in social activism and collection action due to the usage of social media.

4. More than half of the GenZ population agree or strongly agree that social media usage has led to digital addiction or digital dependency.

5. The majority of GenZ users agree that social media has influenced their self-perception and body image.

6. When it comes to the comparison of the lives of the GenZ population with others on social media, the majority agree that it has increased slightly or moderately due to the usage of social media.

7. Fear of m missing out (FOMO) has been a significant concern for the GenZ population, the majority of the GenZ frequently experience FOMO due to usage of social media.

8. Digital addiction among GenZ has led to the majority of the GenZ population scrolling through social media without any specific purpose or goal.

9. Privacy concerns have been a crucial factor for the GenZ population, resulting in the majority of the GenZ population being concerned about the privacy of their personal information on social media.

10. The majority of the GenZ agree that social media has influenced their purchasing decision leading to impulsive buying behaviour.

11. Information overload has been a concerning point for the GenZ population, where the majority of GenZ agree that they have experienced information overload due to the usage of social media moderately or often.

12. A significant portion of Generation Z is cognizant of the possible risks associated with sharing personal information online, including identity theft and data breaches.

REFERENCES AND BIBLIOGRAPHY

1. Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media, and adolescent wellbeing: A systematic narrative review. Children and Youth Services Review, 41, 27-36.

2. Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015). Social comparisons on social media: The impact of Facebook on young women's body image concerns and mood. Body image, 13, 38-45.

3. Hinduja, S., & Patchin, J. W. (2010). Bullying, cyberbullying, and suicide. Archives of Suicide Research, 14(3), 206-221.

4. Nesi, J., Prinstein, M. J., & Telzer, E. H. (2018). Opportunities for digital media to promote adolescent mental health: Insights from the 2016 Society for Research on Adolescence Meeting. Journal of Research on Adolescence, 28(1), 26-39.

5. Odgers, C. L., & Jensen, M. R. (2020). Annual Research Review: Adolescent mental health in the digital age: Facts, fears, and future directions. Journal of Child Psychology and Psychiatry, 61(3), 336-348.

6. Orben, A., & Przybylski, A. K. (2019). The association between adolescent well-being and digital technology use. Nature Human Behaviour, 3(2), 173-182.

7. Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. Computers in Human Behavior, 29(4), 1841-1848.

8. Sampasa-Kanyinga, H., & Lewis, R. F. (2015). Frequent use of social networking sites is associated with poor psychological functioning among children and adolescents. Cyberpsychology, Behavior, and Social Networking, 18(7), 380-385.

9. Turel, O., & Serenko, A. (2012). The benefits and dangers of enjoyment with social networking websites. European Journal of Information Systems, 21(5), 512-528.

10. Twenge, J. M. (2017). iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy—and Completely Unprepared for Adulthood—and What That Means for the Rest of Us. Simon and Schuster.

11. Valkenburg, P. M., Koutamanis, M., & Vossen, H. G. (2017). The concurrent and longitudinal relationships between adolescents' use of social network sites and their social self-esteem. Computers in Human Behavior, 76, 35-41.

12. Vogel, E. A., Rose, J. P., Okdie, B. M., Eckles, K., & Franz, B. (2015). Who compares and despairs? The effect of social comparison orientation on social media use and its outcomes. Personality and Individual Differences, 86, 249-256.

13. Wegmann, E., Oberst, U., Stodt, B., & Brand, M. (2017). Online-specific fear of missing out and Internet-use expectancies contribute to symptoms of Internet communication disorder. Addictive Behaviors Reports, 5, 33-42.

14. Zimmerman, G. M., Farrell, A. S., & Maston, C. R. (2015). Peer influence

15. University of South Florida. "Social Media: A Platform for Networking and Information Sharing."

16. McKinsey & Co. (March 2023). "Generational Insights: Understanding Gen Z in 2023."

17. Alison Elridge. (2023). "Generation Z." In Britannica.

18. McKinsey & Co. (March 2023). "The Rise of Gen Z: Shaping the Future in the Asia-Pacific Region."

19. eMarketer. (2011). "Gen Z and Online Socializing: Communication Preferences and Trends."

20. Gyan Prakash Yadav, Jyotsna Rai. (2017). "Generational Shift in Communication: An Exploration of Generation Z's Online Communication Habits." Research Gate.

21. Cherryl Healy, Kana Enomoto, Andrew Doy, and Eric Coe. (2023). "Social Media Usage Patterns and their Impact on Well-being: A Study of Gen Z and Millennials." McKinsey.

BLOCKCHAIN TECHNOLOGY: OPPORTUNITIES AND CHALLENGES IN INDIAN CONTEXT

Shreyansh Gattani

Student, SVKM's Usha Pravin Gandhi College of Arts, Science and Commerce

- **ABSTRACT**

Recent years have seen a major increase in interest in blockchain technology because of its potential to transform a number of industries and solve enduring problems.

This research paper aims to guide the peoples regarding the blockchain technology its challenges and opportunities and future directions of blockchain technology in India. The peoples who do not have interest in this field but wants to know about this technology can also understand from basic is like what the technology is so through this research paper they can understand about this. mainly in this I have addressed about the challenges and opportunities in India so that it can give good knowledge to the Indian citizens as like in what ways they can apply this technology and create a revolution. This paper also addresses the potential that blockchain offers, including increased efficiency, security, and transparency in industries including finance, supply chain management, healthcare, and governance. This paper will also discuss the challenges that may be perceived as regulatory worries, inadequate infrastructure development, and scalability.

- **INTRODUCTION**

Blockchain technology has become a disruptive force that has the ability to completely change a number of industries, including the way data is managed and transactions are carried out. With its unique characteristics—such as its decentralized structure and unchangeable nature—it can assist numerous sectors in resolving issues and transforming their transaction and data recording systems. Additionally, it helps to do away with the need for intermediaries to record data or validate transactions and opens up possibilities for innovation across a wide range of industries.

- **LITERATURE REVIEW**

In the literature review of Anup Kumar Saha he talks on the recent global blockchain craze, India's reaction to it, and the distinctive social features of India that contribute to its particular blockchain conflict. It seeks to advance knowledge of these niche traits in order to pinpoint the particular difficulties and advantages associated with applying blockchain technology from an Indian point of view. Sumaiya A Bharti (2019) explains the state of blockchain technology in India at the moment, possible uses for it, a synopsis of its core technologies, and the successful deployment of blockchain in a number of global application areas. Safdar tanweer (2020) discusses the foundations of blockchain technology, as well as its features, methods, applications, benefits, and drawbacks. It also presents a case study of an e-voting model created in a decentralized Ethereum blockchain context. Sumaiya said that the financial sector is most enthusiastic in adopting blockchain in Indian banking .

- **BLOCKCHAIN TECHNOLOGY AND ITS FUNDAMENTALS**

In essence, distributed ledger technology, or blockchain, allows for the transparent and safe recording of transactions involving numerous parties.

The blockchain distributed ledger technology allows for the transparent and safe recording of transactions involving numerous parties. Earlier time when this technology is not invented the transaction happens and these are also recorded but we cannot purely believe in these records as it is having centralized access so anyone can access it and also easily the information which is stored can be changed so there is need of a decentralized system with its immutable nature and here the introduction of blockchain happens

In 1990s its research has been started and later in 2008 Satoshi Nakamoto invented this technology. after proper implementation of this technology, he invented the bitcoin with the help of blockchain technology.

It is based on cryptographic principles and is composed of a series of blocks, each of which has a set of transactions. All of the buyer-seller information is saved in these blocks. The immutability and integrity of the data recorded within the blockchain are guaranteed by the cryptographic hashes that bind these blocks together. Because transactions are verified and approved by the network's participants, blockchain's decentralized structure does away with the necessity for a central authority.

- **CHALLENGES WHICH BLOCKCHAIN TECHNOLOGY CAN FACE IN INDIA**

1 Limited Infrastructure.

This technology needs robust infrastructure including high speed network and reliable power supply Some regions in India face frequent power cuts and unreliable electric supply. blockchain networks require continuous

power supply as they are decentralized and rely on multiple nods. Additionally, inadequate hardware and software resources can hinder the performance of blockchain nodes, making it difficult to validate transactions and maintain the integrity of the decentralized network. Without sufficient infrastructure in place, blockchain platforms may struggle to scale and keep up with the growing demands of users, ultimately impacting the reliability and effectiveness of the technology.

2 Lack of Legal Framework.
In India there is not any regulations and laws regarding the blockchain technology. This can create uncertainties and challenges in terms of legality, compliance, and protection of user rights. The lack of a comprehensive legal framework for blockchain technology can lead to numerous challenges and uncertainties. This can result in issues related to regulatory compliance, contract enforcement, intellectual property rights, and consumer protection. Without clear guidelines and regulations in place, companies and individuals may hesitate to adopt blockchain technology, fearing potential legal repercussions and liability.

3. Public Perception and Education
In India the general public is not aware and not educated about this technology and it is relatively new. There is a need for extensive education and awareness campaigns to overcome mistrust and scepticism around blockchain, as well as to showcase its potential benefits. One major challenge is the perception that blockchain technology is primarily used for cryptocurrency transactions and is therefore associated with illegal activities. This negative image can hinder the adoption of blockchain in mainstream applications such as supply chain management, healthcare, and voting systems. Moreover, the complex nature of blockchain technology requires a certain level of technical expertise to fully comprehend its potential benefits, leading to a lack of interest and investment from businesses and governments. Education and awareness campaigns are crucial in bridging this gap and demonstrating the real-world applications of blockchain technology.

- **OPPORTUNITIES FOR BLOCKCHAIN TECHNOLOGY IN INDIA**

1. **Financial Services:** Blockchain can enhance transparency and security in banking and payments systems, reduce fraud, and improve efficiency in processes like supply chain financing and cross-border remittances automate the verification process and do away with the requirement for several parties to manually verify the legitimacy of transactions. India's banking and financial systems should expect to take the banking process to a new level with the use of bitcoin technology. This study examines the field research on how banks are monitoring and controlling the banking process more successfully and efficiently with the use of current bitcoin technology.

2. **Supply Chain Management:** Blockchain can provide end-to-end visibility and traceability in supply chains, ensuring the authenticity and quality of products. This can be particularly useful in sectors like agriculture, pharmaceuticals, and retail. Blockchain technology ensures that everyone involved in the supply chain has real-time access to the same information by recording every transaction on a decentralized ledger. This greater openness makes it easier to find product origins, identify problems or inconsistencies, and stop fraud. Because blockchain technology is decentralized, it is extremely safe and impervious to tampering. The risk of data breaches and cyberattacks is decreased because all transactions are spread over a distributed network and are cryptographically encrypted.

3. **Healthcare:** Blockchain can securely store and share medical records, ensuring patient privacy and interoperability between healthcare providers. It can also facilitate clinical trials, drug traceability, and the prevention of counterfeit drugs. Blockchain technology makes it possible for healthcare practitioners to easily share and access patient records, which lessens administrative work and enhances patient care. Because blockchain technology is decentralized, all transactions and procedures are transparent and easily traceable back to their original source, which encourages accountability in the healthcare industry.

4. **Land Records:** Blockchain can help maintain tamper-proof land registries, reducing land disputes and fraud. It can also streamline property transactions and enable fractional ownership.

5. **Voting Systems:** Blockchain can provide secure and transparent voting systems, enhancing trust and auditability in elections. Blockchain technology can revolutionize the voting system in India by ensuring transparency, security, and efficiency. By using a decentralized and tamper-proof ledger, each vote cast can be securely recorded and verified, preventing any incidences of fraud or manipulation. This would also eliminate the need for physical ballots and reduce the chances of human error. Additionally, blockchain technology can enable real-time monitoring of the voting process, allowing authorities to track the progress of election results and identify any irregularities instantly. Overall, the implementation of blockchain in the

voting system can enhance trust among the public and promote a fair and democratic electoral process in India.

6. **Intellectual Property Rights:** Blockchain can help protect intellectual property rights, enabling creators to register and track their works, and ensuring fair compensation.

7. **Government Services:** Blockchain can streamline bureaucratic processes, reduce corruption, and enable efficient and secure delivery of public services like identity verification, tax filing, and welfare distribution. Blockchain technology offers an unchangeable and tamper-proof record of all interactions and transactions, which can aid in guaranteeing accountability and transparency in government operations. This may contribute to lessening corruption and raising public confidence in governmental agencies. All things considered, the government of India stands to gain a great deal from the use of blockchain technology, including enhanced service delivery, cost savings, and better efficiency, accountability, and transparency.

- **CONCLUSION**

In this research paper, we have explored various aspects of blockchain technology and its applications in different domains and especially in India. We have investigated the challenges, opportunities, and future directions of blockchain technology in several areas and mainly in India. Blockchain technology has the capability to enhance transparency, security, and efficiency in areas such as financial transactions, supply chain management, healthcare, and governance. In India, where corruption, fraud, and inefficiencies are prevalent, blockchain holds immense promise. However, there are challenges which need to be addressed as well, such as regulatory frameworks, scalability, integration with existing systems, and awareness among businesses and individuals. This research paper would provide a comprehensive understanding of the current state of blockchain technology in India, its potential impact, and the measures needed to overcome the challenges hindering its widespread adoption. By conducting such research, we can pave the way towards harnessing the full potential of blockchain technology for the benefit of the Indian economy and society as a whole.

- **REFERENCES**

1. Syamsu Rijal : Block chain Technology: Challenges, Opportunities and Future Direction

2. Article (2020): Indian banking sector, blockchain implementation, challenges and way forward.

3. Uzma jafar (2021) journal: blockchain for electronic voting system review and open research challenges

4. Sebestian Walter Scheutz, Viswanath Venkatesh : Blockchain adoption and financial inclusion in India , research opportunities.

ART THERAPY A CURE TO EMPLOYEE STRESSORS

Visha Mehta and Mishti Trevadiya
Student of Usha Pravin Gandhi College of Art, Science, and Commerce

ABSTRACT

In todays corporate world, the employees are in a constant race of survival. Due to changing market structures and the changes in the dynamics of the business environment , the employees are expected to cope up with every awakening hour. According to British Safety Council India, globally 65% of workers reported that stress adversely affecting their work and 47% have similar concerns regarding their mental well being , the survey resulted in more than 32000 workers, across 17 countries are affected . the high complexities and competitions in the corporate world , along with the massive changes in the demographics , leads to some major causes of stress to todays employees maintaining and being considerate about the well being of the employees is seen as a big challenge for the employees the purpose of this paper is to create a sense of awareness on how art theraphy can be used in corporate scenario.

Organisations have started adopting methods like conducting yoga sessions, gymnasiums, Fitbit and apple watches etc. but all of which focuses on the physical aspect of the health. While there are very less measures for mental health. Even though HR has taken a significant leap in the mental health domain by conducting mental health workshops and keeping counselor for employees, they still have neglected the creative medium role at work to manage employee experience, well being and health . Introduction of new techniques and methods are of great instrument for stress management .Art therapy can result into an incredibly successfull tool as it can help emloyees to express their feelings and problems which would be difficult to address verbally.

Keywords: employee stress, stress management, art therapy, new technique

INTRODUCTION TO EMPLOYEE STRESS AND CAUSES:

The word just comes from the Latin word "strictus" which means tight and narrow and "stringere" which means to tighten . these ancient words carry the meaning of restriction and limited Ness and reflect individual psychosomatic states under mental demand and physical pressure .

Stress is just a way in which human beings react to their physical and mental challenges. The situations through which we become stressful are known as stressors. Not a single day goes by without stressful situations, special in the corporate world.

There can be many reasons through which stress originates, some of them are work environment , the pressure of fitting in the work place, fulfilling expectations, job clarity , job instability, extensive working hours, deadlines, work family balance, personal problems. the job itself can be the reason for stress. That means if you don't like the job and you can't do it properly it will lead to stressful situations automatically. Some major factors leading to work stress are frustration, lack of control and uncertainty are also some major factors leading tp work stress.

According to a research from a students from Harvard Business School, and the University of Queensland , one out of every two people in the world will develop a mental disorder in their lifetime, the findings were based on face - to – face surveys of more than 150000 adults across 29 countries of varying wealth from all the region of the world .

If the stress is not managed properly it can have detrimental effects on an individuals mental health . according to World Health Organisation, WHO , stress affects organisation as whole and not only an individual's mental and physical health.

In a survey it was found that 38% of the employees are driving at their jobs, but 42% of the employees are experiencing high level of stress. Work stress is an inevitable phenomenon, but needs to be taken care of, some strategies to lower the work stress that should be used by the HR are as follows:

1) Quick issue redressals

2) Encouraging socialising

3) Micro breaks during the work day

4) Flexible working hours

5) Showing of empathy towards employees

6) Creating cultural of acceptance

7) Understanding your employees

These all stress management efforts towards the employees will result in productivity and also lead to sustainability of the organisation for a long term as you will have a low stress and high working workforce, which is creative motivated and dedicated towards achieving the goal.

To help understand employee stress better and more effectively, one can refer to some of the best selling books for employee stress and management:

1) The secret life of organisations – Shalini Lal and Pradnya Parasher

2) Untangle your emotions- Jennie Allen

3) Winning the war in your mind – Craig Groeschel

However, even after all these activities and books that are meant to help with employee stress management , most of them seem to be futile as it does not reach the depts of the employees brain, hence Art therapy can come as new and effective method to bring out the creativity from the employees and help in stress management.

ART THERAPY
It may seem a mystery that we make or enjoy art at all. We are drawn to experiencing art because doing so lights up the pleasure centres our brains, creating a warm feeling that encourages us to want more. Art therapy is a new concept and is growing in the medical field. Art therapy is defined by the British Association of art therapists as, " a form of psychotherapy that uses art media as its primary mode of expression and communication, clients which are referred to art therapists are not required to have experience or skills in the arts. The art therapists primary concern is not required to have experience or skills in the art , the overall goal of its practitioners is to enable clients to change and draw on personal level through use of artistic materials in a safe and convenient environment"

The British Association of art therapist also included a study in which it stated that, 23000 people making art once a week are said to be happy . a study also suggested that people who are often engaged in artistic activities has less cognitive impairment. Hence, art can be a form of new leap for the development of the employee as well as for the organisation as doing so will help generate newer ideas and innovations will immerse in the market. Art therapy is a growing field in the industry and has been researched and investigated a lot.

To further explain the complexities and in depth meaning on Art Therapy , a very fascinating book called, "Your Brain On Art" by Susan Magsamen and Ivy Ross, helps explain why art plays such a significant role in everyone's life intentionally or unintentionally. This book speaks on the science of "neuroesthetics" .

Neuroesthetics is an emerging concept in the medical field: it means how our brain responds to artistic and aesthetic experiences, the author suggests how we all should indulge in some sort of art in our day to day lives. They further helps us to understand how art therapy can help heal us from acute or chronic trauma. For example war veterans, first responders, people suffering from PTSD, people suffering from racism. They also introduce programs for research for labs which are studying healing through art such as National Endowment for Art Creative forces program for vets and the Drama Therapy Theatre and Health lab at New York university.

It is been said that healing can be done through art even in the form of music. A 2020 National Endowment for the arts report resulted 116 studies on music therapy , for opioid users as it found that it soothes their pain. But music is not only the art that heals. Another study found that colouring and drawing is also a marker of good cardiovascular health. The author also writes about " the art can transform you like nothing else. They can help you move from sickness to health, stress to calm, or sadness to joy and they enable you to florish and thrive"

Art therapy also represents an integration of art with medical science. Also known as "Therapeutic Art" In numerous studies it has been said that, art therapy reduces the cortisol level post the therapy. Art therapy by a student from St. Catherines University , certain findings were measured out such as, art is an alternative modality and the use of art in therapy need not be limited to a certain therapeutic framework .

INCORPORATION OF ART THERAPY IN CORPORATE WORLD:
According to a article by Monica Kapur an experienced art therapist and counselor, there are a total of six effective ways of incorporating art therapy in corporate world.

1) Office spaces

2) Free expression room

3) Creative problem solving

4) Team building and conflict management

5) Mental health and work life balance

6) Gifting

OFFICE SPACES:

Offices having plain black walls, and dull aesthetics in the company affects the mood of the audience. Offices should create naturscapes or put an artistic piece or sculpture in strategic location. Professor Semir Zeki, chair in neuroesthetics at university college London , in an experiment found that people exposes to series of painting have a strong activity in the brain.

FREE EXPRESSION:

Most companies are like movies large dramatic entries and exits, midnight assassinations, noble speeches etc. but having a place to release the tension is a great way to recharge. A room filled with paints , papers, drums, music to jam etc can be made so that the employees can use it as a stress buster. If the company can not afford that then they can hold events once a month in meeting rooms.

TEAM BUILDING AND CONFLICT MANAGEMENT:

Art projects can help a team to establish stronger bonds and help them to communicate in ways that will help them bond even more affectively.

MENTAL HEALTH AND WORK LIFE BALANCE:

Art allows us to express what cannot be spoken. Art therapy usually focused on the process rather than the final destination. For work life balance , transform your life into a pie check and see what is happening in your life. Think how your past is overpowering your present and ruining your future . most important say NO, and ask for help.

GIFTING:

Appreciating someone is a greatest form of kindness. An appreciation day where all the employees will create something of sentimental value and give it to other it is considered as gifting. Its can be calligraphy, painting or any art form.

RESEARCH METHODOLOGY:

The study relies on secondary data obtained from many publications, periodicals, books and websites, all of which are citied in the bibliography.

CONCLUSION:

All of this points to the fact that Art therapy is a growing concept in the field of medical research. Fortis Memorial Research Institute Gurgaon adopted the art therapy to heal patients. The hospital is first of its kind to introduce Art as a medicine for their patients. But this needs to be introduced and practiced in business world as well. In order for more effective results, Art therapists can be appointed.

HR managers may be overburdened by their own responsibilities and work , so appointing an expert would be a good decision as the employees will have someone they can consult with at any given point . This investment will surely be of great importance as it will definitely give great returns in long run. If we see from the long run perspective, art therapy can become a great cost-effective tool for stress management in the corporate force.

The following are the statistics for the same

Ratings of symptoms in terms of change due to work in art therapy
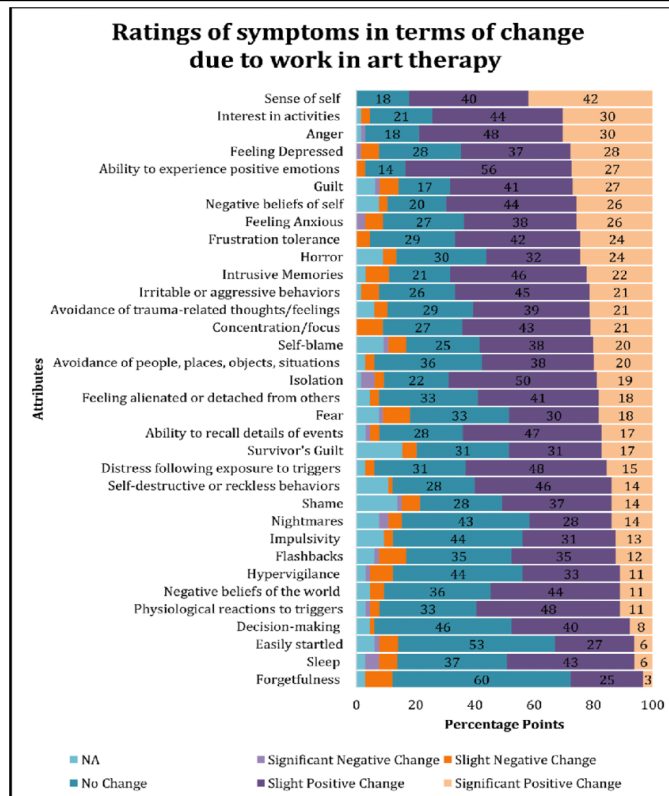
The above chart shows the ratings of symptoms in terms of change due to work in art therapy , as it is seen that there a significant positive change in all aspects of an employee due to art therapy along with no changes and slight positive changes in some aspects. While the ratio of negative changes is far less comparatively.

Hence, Art therapy can be used as a new technique and seemingly a huge success if used effectively by the HR managers for the betterment of their employees and as well as for the growth of the organisation.

REFRENCES:

- Project guru "Art therapy in corporate scenario" February 13, 2013

- Monica Kapur "Applying Art therapy in the corporate world" August 2, 2022

- Greater Good Magazine "What Art Does To Your Brain?" By Jill Suttie April 25, 2023

- National Library of Medicine August 9, 2021

- Frontiers "Art Therapy : A complementary Treatment for Mental Disorders" August 12, 2021

- Work Stress of Employee: a literature review by Prakash B. Kundaragi, Dr. A.M Kadaklol Vol-1 Issue-3 2015

- Harvard Medical School "half of world's population will experience mental disorder" by Queensland brain institute July 31, 2023

- St. Catherines University , " the use of art in therapy : an exploratory study" by Jamie Sanders 5-2013

THE IMPACT OF UNIFIED PAYMENTS INTERFACE (UPI) ON THE TOFFEE BUSINESS IN INDIA: A COMPREHENSIVE ANALYSIS

Hitansh Shah and Siddh Shah

Usha Pravin Gandhi College of Arts, Science and Commerce

ABSTRACT

The digitization of financial transactions through Unified Payments Interface (UPI) has brought about significant changes in consumer behaviour and payment preferences, particularly impacting the traditional toffee business in India. This paper examines the adverse effects of UPI adoption on toffee sales, drawing on insights from anecdotal evidence collected from local 'kiraanas' and 'paanwalas'. With the emergence of contactless payments and the decline of cash transactions, the once-thriving "change" or "chhutta" industry has witnessed a downturn, posing challenges for the toffee/candies business as a whole. Additionally, the Covid-19 pandemic has accelerated the shift towards contactless payments, exacerbating the challenges faced by small-scale toffee retailers. The research sheds light on the real-world impact of technological disruptions on small businesses, which form the backbone of many local economies.

Keywords: Impact of UPI, Toffee/Confectionery (HBC) Industry, Consumer Behaviour Shift

INTRODUCTION

The widespread adoption of digital payment methods has inadvertently cast a shadow over the traditional toffee/candies industry in India. Reflecting on the landscape a decade prior, the scenario was vastly different. The common practice of using candies as change was widespread, particularly evident in local paan shops and 'Kiraana' stores, where candies seamlessly replaced the customary exchange of loose change. However, the increase in UPI usage has led to a significant change. With exact payments facilitated through UPI transactions, the need for the familiar ritual of receiving candies as change has stopped. This significant change has had a noticeable impact on the toffee industry.

The transition to digital payments represents a progressive shift in the way transactions are conducted, offering convenience and security to consumers and businesses alike. However, this transition has had unintended consequences for Hard Boiled Confectionery Industry in India.

This research aims to validate the premise. By harnessing primary data and analysis, this study seeks to confirm whether claims linking the decline in the HBC industry to the widespread adoption of UPI are indeed accurate. Indeed, the implications of this phenomenon extend beyond mere economic metrics. It speaks to the evolving fabric of our consumer culture, underscored by the seamless integration of technology into everyday transactions. Essentially, this research endeavour aims to provide valuable insights into the relationship between technological advancement and changes in consumer behaviour.

Growth of UPI Transactions by Value
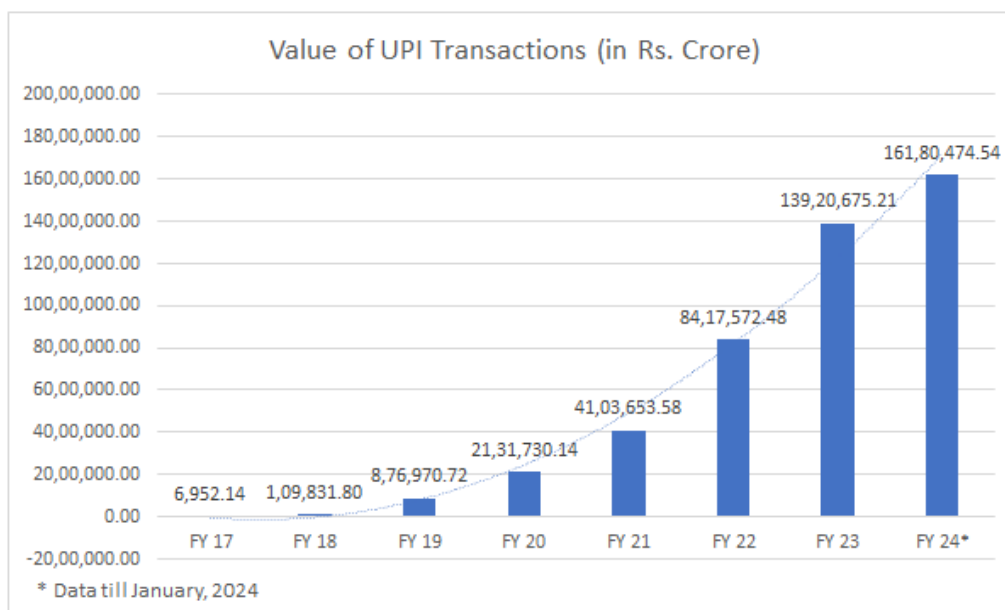
Source: npci.org.in

The following bar chart highlights the exponentially increasing trend of UPI payments by value, in INR Crores. The data showcases a remarkable and accelerating trajectory, reflecting the rapid adoption and expansion of digital payment transactions in the country.

REVIEW OF LITERATURE

Digital Payments and Small Businesses: Previous studies have documented the transformative potential of digital payment technologies for small-scale enterprises, highlighting benefits such as increased efficiency, expanded market reach, and enhanced financial inclusion (**McKinsey & Company, 2022**). Developing countries of the likes of India have experienced a dramatic transformation in terms of consumer behaviour with the advent of technologies like UPI and are set to become digital payment economies (**Boston Consulting Group, 2022**). However, there are also concerns regarding the displacement of cash transactions and the need for businesses to adapt to changing consumer preferences (**Banerjee & Duflo, 2019**).

Confectionery Industry and Payment Trends: While limited research specifically addresses the impact of digital payments on the confectionery sector, broader trends suggest a growing preference for cashless transactions among consumers, driven by factors such as convenience, security, and incentives offered by digital platforms.

STATEMENT OF THE PROBLEM:

The HBC industry in India faces a pressing challenge due to the widespread adoption of digital payment methods, particularly UPI. The shift away from cash transactions has raised concerns about the sustainability of small-scale retailers and the long-standing practice of using candies as change in retail transactions. This study aims to investigate the impact of digital payment adoption on toffee/candies sales and understand the underlying factors contributing to changes in consumer behaviour within the retail landscape

METHODOLOGY

For this study, a qualitative research approach was employed to investigate the impact of digital payment adoption on the toffee/candies business in India. The methodology involved conducting surveys with small shopkeepers, specifically targeting 'paanwalas' and 'kiraana shops', who are primary retailers of toffees and candies.

Target Population and Sampling Method: The target population comprised 34 'paanwalas' and 'kiraana shop' owners located in various regions of Mumbai Suburbs. The sampling method used was convenience sampling, where participants were selected based on their accessibility and willingness to participate in the study.

Data Collection Process: A structured questionnaire was designed using Google Forms to collect data from the selected shopkeepers. The questionnaire consisted of multiple-choice and open-ended questions to gather information on various aspects related to digital payment adoption and its impact on toffee/candies sales. The questionnaire was administered in-person, and responses were recorded into the Google Forms by the researchers.

Survey Questionnaire Design: The questionnaire included questions such as the total number of customers per day, demographic characteristics of customers, primary payment methods used by customers, the percentage of sales attributed to UPI payments, and the perceived impact of UPI on toffee/candies sales. Additionally, participants were asked to identify specific candy or toffee brands that experienced a decline in sales due to UPI payments.

Ethical Considerations: Ethical considerations were taken into account throughout the research process. Participants were informed about the purpose of the study, and their participation was voluntary. Confidentiality of responses was maintained. Informed consent was obtained from each participant before administering the questionnaire.

Limitations: In addition to the methodology outlined above, it is important to acknowledge certain limitations inherent in the study. Firstly, the geographical scope of the research was limited, as data was collected only from selected regions within Mumbai (specifically Andheri, Goregaon, Malad and Kandivali regions), potentially limiting the generalizability of the findings. Furthermore, the study utilized a non-probabilistic sampling method (convenience sampling), which may introduce bias into the results. Additionally, the small sample size, attributed to cost and time constraints, may limit the statistical power and generalizability of the findings. Despite these limitations, the study offers valuable qualitative insights into the impact of digital payment adoption on the toffee/candies business in India.

RESEARCH OBJECTIVES:

o To identify demographic trends and consumer preferences influencing the adoption of digital payments over traditional cash transactions in retail settings.

o To identify whether the adoption of UPI and other cashless services have actually affected the toffee business

o To assess the extent of the decline in toffee/candies sales following the growth of UPI and other digital payment methods.

ANALYSIS

1. Payment Preferences:
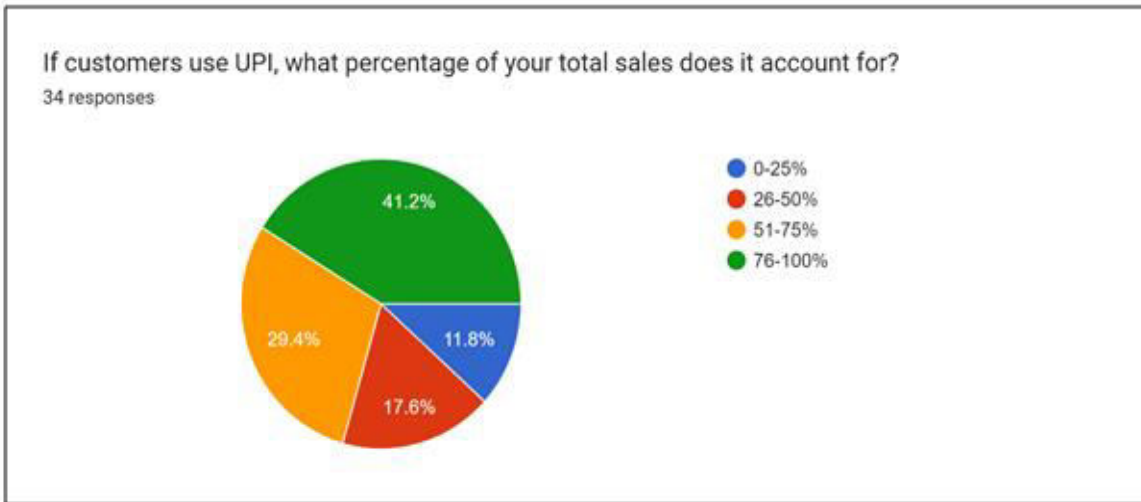
o Cash and UPI are the only majorly used payment alternatives for small shop owners. Although some 'kiraana' shop owners said they accept payment by Debit Cards, UPI does the job "quicker and more conveniently" and hence customers almost never used cards to pay.

o Among the respondents, all of them primarily accept UPI payments, indicating a strong consumer preference for digital transactions. Some respondents said their cash transactions have reduced by more than 80% in the last 3 years.

o On average, UPI transactions contributed to 63% of total sales for these respondents, highlighting the significant reliance on digital payments in their business operations.

2. Impact of UPI:
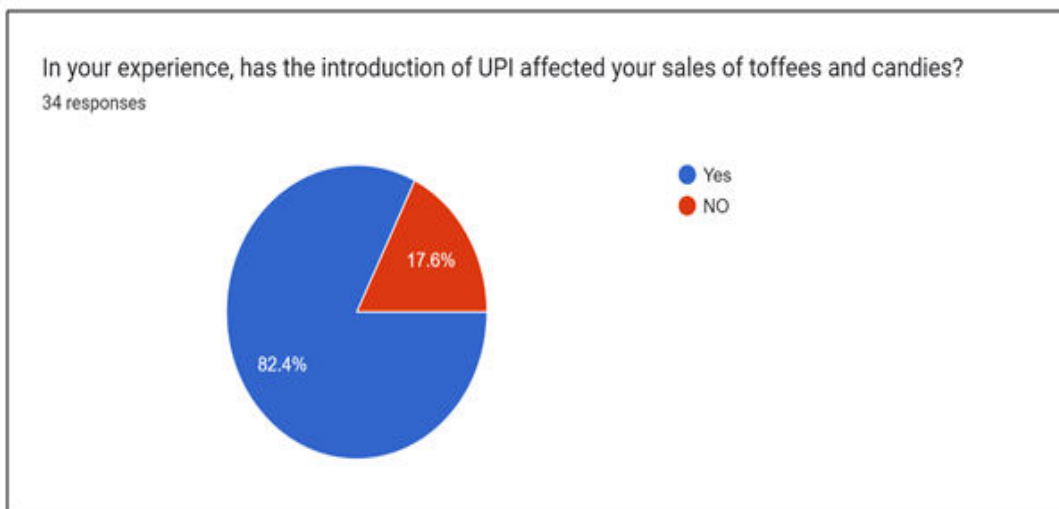
o A substantial majority (82.4%) of respondents acknowledge the impact of UPI on their toffee/candies sales, indicating the pervasive influence of digital payment adoption.

If yes, approximately what percentage decline have you observed in toffee and candy sales since the introduction of UPI?

34 responses
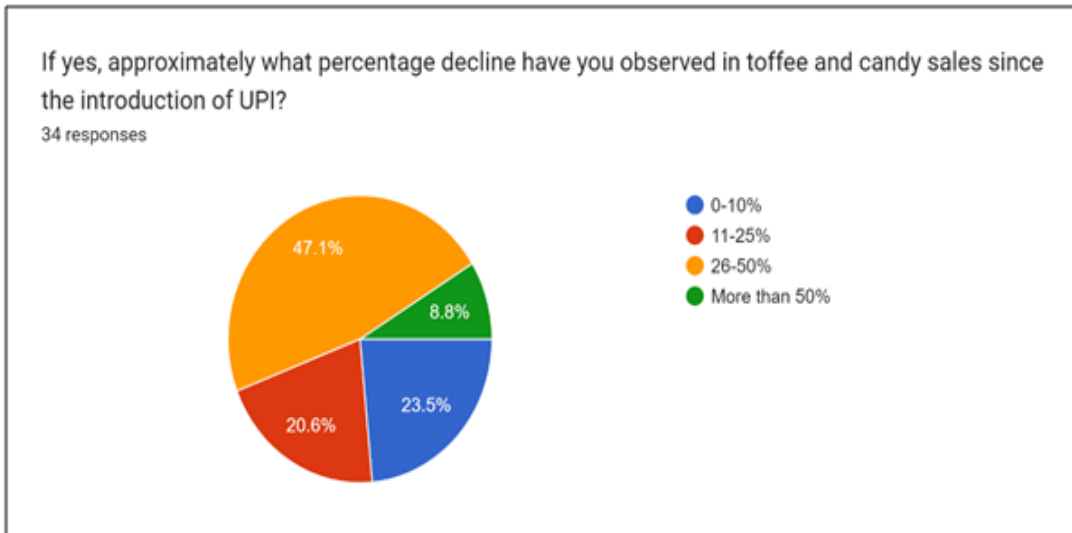
- o Of those affected, more than half report a significant (>25%) decline in sales since the introduction of UPI, indicating a tangible consequence of digital payment proliferation.

- o Nearly one-tenth of the respondents claimed that, with the advent of digital payment systems, Toffee sales have dropped more than 50% and nearly half of the respondents claimed that sales have dropped by at least a quarter.

- o Around 24% of respondents claimed that growing trend of UPI had little to no effect on their Toffee sales. The least affected products, as per the respondents, were chewing gums.

3. Specific Brands Affected:

Can you name a specific candy or toffee brand (if applicable) that has experienced a noticeable decline in sales due to UPI payments?

34 responses
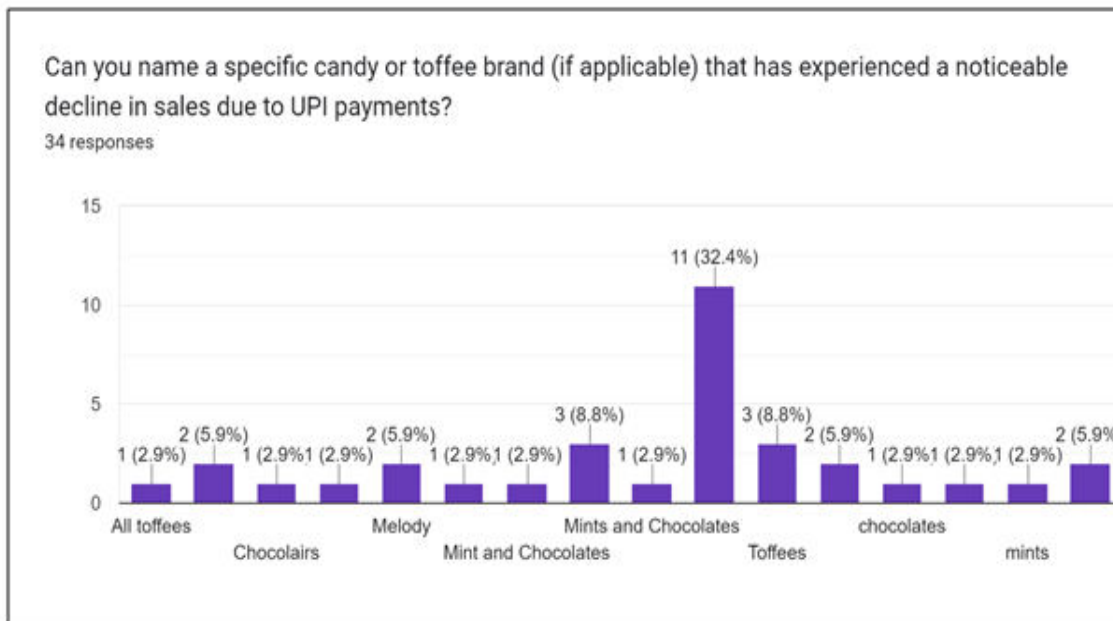
- o The data reveals a variety of specific candy or toffee brands experiencing sales declines due to UPI payments.

- o Notably, Melody, Pulse, and Eclairs are among the most commonly cited brands facing a noticeable decline in sales, emphasizing the widespread nature of the issue across different product categories.

4. Demographic Insights:

Please select the category that best represents your demographic (Check all that apply)
34 responses
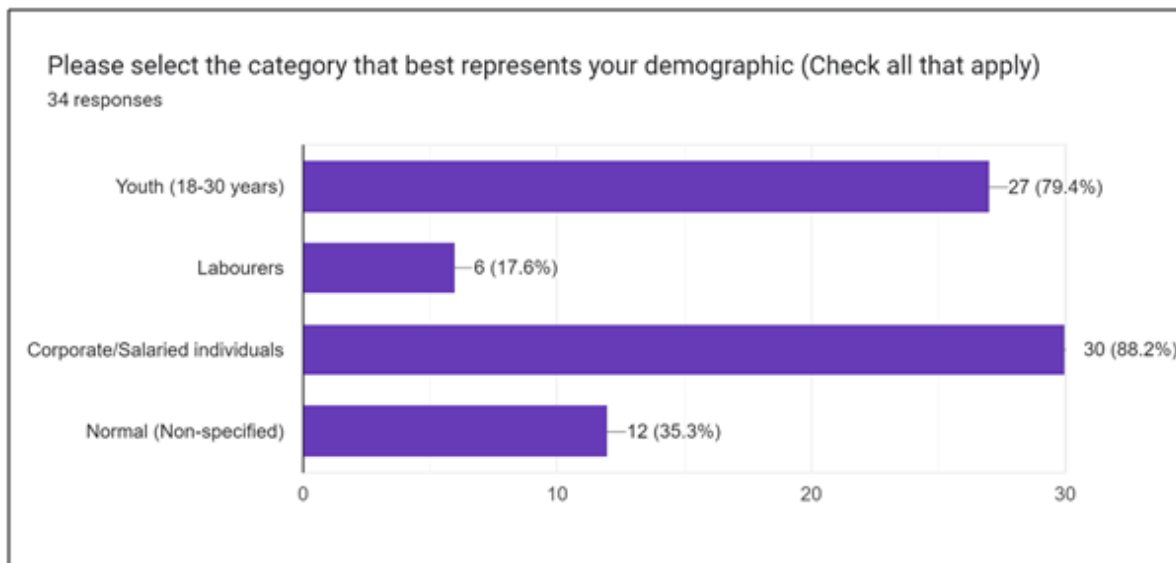
o Youth (18-30 years) represent the largest demographic segment among customers, comprising 80% of respondents' clientele.

o Corporate/salaried individuals also feature prominently as customers, with 88.2% of respondents catering to this demographic group.

o Demographic Bifurcation: During the primary research phase, data collection focused primarily on retail establishments located in corporate areas with a predominantly young and salaried demographic. These areas typically exhibited higher levels of UPI usage compared to residential areas with a more diverse demographic profile. While efforts were made to gather data from residential 'kiraana' shops and local markets, the sample size in these locations was comparatively smaller. Therefore, the analysis considers the potential influence of location on UPI adoption rates and its impact on toffee/candies sales.

o Interestingly, despite variations in demographics, there is a consistent trend of UPI being a preferred payment method across different customer segments

FINDINGS

Demographic Shifts: Survey data revealed a significant increase in the adoption of digital payments among younger consumers (aged 18-30), with UPI emerging as the preferred mode of transaction for this demographic cohort. Older consumers, while slower to embrace digital payments, also exhibited a gradual shift away from cash transactions.

Sales Decline: The majority of shopkeepers reported a noticeable decline in toffee sales following the widespread adoption of UPI. Factors contributing to this decline included the convenience of digital payments, changing consumer preferences, and increased competition from online retailers offering alternative snacks and confectioneries.

Product Specifics: Among the various types of toffees and candies sold, chocolates and mints were identified as the most affected categories, experiencing a significant decrease in sales volumes. Chewing gum, characterized by longer shelf life and distinct consumer preferences, exhibited greater resilience to the shift towards digital payments.

CONCLUSION

In conclusion, our research sheds light on the intricate dynamics between digital payment adoption and the traditional toffee/candies business in India. Through a comprehensive analysis of primary data collected from 34 'paanwalas' and 'kiraana shop' owners, we have uncovered compelling insights into the impact of UPI proliferation on sales patterns, consumer behaviour, and industry dynamics.

Customers are now making exact payments digitally, which means they no longer receive candies as change. This has led to a noticeable decrease in candy sales for these small businesses. Moving forward, further research with larger sample sizes and broader geographical coverage will be crucial to deepen our understanding of the evolving dynamics between digital payments and traditional retail sectors, guiding policymakers, businesses, and stakeholders in navigating the changing landscape of consumer behaviour and payment preference

REFERENCES

1. Banerjee, A., & Duflo, E. (2019). Good Economics for Hard Times.

2. Boston Consulting Group, "The future of digital payments in India", (2022)

3. McKinsey & Company, "Sustaining digital payments growth: Winning models in emerging markets", (2022)

4. Growth trends of UPI transactions by value https://www.npci.org.in/what-we-do/upi/product-statistics

5. https://www.livemint.com/news/india/chutta-nahi-hai-how-upi-is-killing-toffee-business-11665720418470.html

6. https://www.linkedin.com/posts/abhishpatil_fact-candy-brands-owned-the-chutta-activity-6984065792543727616-K8ub

THE IMPACT OF SOCIAL MEDIA ON GEN Z'S FINANCIAL LITERACY

Devanshi Rambhia, Krisha Fofaria and Jinakshi Gandhi

Usha Pravin Gandhi College of Arts, Science and Commerce

ABSTRACT

This research delves into the impact of social media on the financial decisions of Generation Z (Gen Z), focusing on their behavioral patterns, risk perceptions, and the role of influencers. Through a comprehensive review of literature and primary data collected via a Google Form questionnaire, the study explores Gen Z's reliance on social media for financial guidance and its implications. The findings reveal that Gen Z heavily utilizes platforms like Instagram, YouTube, and Twitter for financial information consumption, with topics such as investing strategies, budgeting, and understanding financial products being popular. Influential figures like financial influencers and bloggers play a significant role in shaping Gen Z's financial attitudes and decision-making processes. However, the study also identifies challenges and pitfalls associated with relying solely on social media for financial information, including misinformation, emotional decision-making, and privacy concerns. Regulatory concerns regarding market manipulation and pump-and-dump schemes are also addressed. Despite these challenges, the study concludes that social media platforms offer significant opportunities for improving financial literacy among Gen Z, providing accessible and user-friendly resources for personal finance education. It emphasizes the importance of critical thinking and cross-referencing information from multiple sources to ensure accurate and reliable financial advice. Ultimately, the research highlights the transformative potential of digital media platforms in empowering individuals to take control of their financial futures.

Keywords: gen z, social media, financial literacy, influencer, reels, finfluencers, finance, information, financial decisions.

INTRODUCTION

● **What is Gen Z and their Usage of Social Media?**

Generation Z, or Gen Z, refers to individuals born roughly between the mid-1990s and 2010. They are known for growing up in a digital age, and their usage of social media is widespread. Gen Z commonly engages with platforms like Instagram, Snapchat, and Twitter. They often prioritize visual content, value authenticity, and are adept at using social media for self-expression, activism, and staying informed.

Gen Z's dependence on social media is often driven by factors like social connectivity, self-expression, and information-sharing. Social media provides a platform for constant communication, allowing them to connect with peers, share experiences, and build online communities. Additionally, the visual nature of platforms like Instagram aligns with Gen Z's preference for visual communication.

● **Social Media and Financial Literacy - the Relation**

Financial literacy is built on an understanding of principles related to borrowing, spending, investing, and saving. A sound financial life also requires knowledge of asset growth, credit management, debt reduction, and avoiding frauds.

Social media can enhance financial literacy by sharing financial knowledge and tips from influencers and experts. However, it can also pose challenges like exposure to lifestyle images, consumerism, and misinformation, potentially leading to poor financial decisions. The impact depends on individuals' critical evaluation of information and the quality of financial education content.

The social media generation, despite being educated, competitive, and high tech, lacks financial literacy, leading to present-oriented living and high debt levels. Their focus on social media and easy credit access contributes to their financial struggles, causing them to feel entitled and entitled

Objective of the Research

- Understanding behavioral patterns, risk perceptions, and influencers' impact on Gen Z's financial behaviors.

- Identifying patterns and nuances in Gen Z's interactions with financial content.

- Assessing how exposure to social media influences Gen Z's perceptions of financial risks and rewards.

- Exploring the role of influencers and online communities in shaping Gen Z's financial attitudes.

- Evaluating the correlation between social media exposure and financial literacy among Gen Z.

REVIEW OF LITERATURE

Prof. Dr. S.K. Khatik, Rahul Joshi, Dr. Vinod Kumar Adwani (2021): Their study found a link between social media information and investment decisions, particularly for individual investors. The research, which focused on information from social media sites like YouTube, Facebook, and Twitter, found that the likelihood of making a purchase increases as the amount of information on a particular investment increases. The study supports previous research that social media affects customer purchasing behavior and that good social media posts inspire investors to acquire stock in a company.

Kiranpreet Kaur Chhabra, Prof. Shilpi Gupta (2023): The study highlights the significant role of digital media platforms in enhancing financial knowledge and skills, offering user-friendly content on topics like budgeting, saving, investing, debt management, and retirement planning. However, it emphasizes the need for caution and critical thinking when consuming information from these platforms. The literature on personal finance planning is limited, with only a few studies on its behavior and process. The study aims to fill this gap by examining the behavior, effectiveness, and individual facto-based aspects of financial planning

Imene Chikhi (2021) : Financial influencers are using social media to share authentic financial knowledge, attracting attention and increasing visibility among young adults. They build their network, attract media, brands, and peers, and position themselves as mentors. This approach has changed the perception of personal finance, allowing the "TikTok generation" to access instant financial information. This case study suggests a broader definition of financial influencers on social media.

Ms. Falguni Mathews, Akhileshwaran Bharatarajan, Jeetu Kunder, Abhishek Aji, Sahil Chavan (2023): The study concluded that social media is a powerful platform for financial influencers to share content and provide new-age investors with valuable financial knowledge. The increasing number of creators aims to simplify understanding for viewers, while investors should focus on protecting their capital and not expecting high returns just because influencers mention them in their videos.

LIMITATIONS OF THE STUDY

1. The target population was a significant challenge because it was difficult to locate Gen Z who were interested in finance and make use of social media for financial insights.

2. Google Forms was the only tool used to collect the data. For this reason, there was no one on one interview. Therefore, we cannot claim the survey to be a completely credible and dependable resource.

3. Mumbai is a large city with a huge population. The research was restricted to the college going students. It's likely that Gen Z's perspectives differ from those in other parts of the country or around the world.

RESEARCH METHODOLOGY

This research incorporates usage of primary and secondary sources.

Primary data is being collected through a Google Form Questionnaire sent out to the sample audience of respondents. Secondary data consists of references from other research papers, verified articles, and other research projects.

Since Gen-Z was our target demographic, the responders were in the 18–27 age range. Out of the total responders the majority were a part of the age range of 18-24 years.

Instagram, YouTube, Twitter (X), Facebook, and LinkedIn seem to be commonly used platforms, as indicated by higher percentages (70.8% - 72.2%). This shows that a large majority of respondents utilize these content-sharing platforms for information consumption.

The data suggests that traditional sources like Books and reputable financial platforms are less used.

In terms of financial statistics, the graph below demonstrates that around 35% of the target population uses social media daily, while approximately 30% of the audience uses social media several times a week. Less than 2% of the audience, according to the data, never utilizes social media, which is insignificant in comparison to everyday users.

How often do you use social media platforms for financial education or information?

- Daily
- Several times a week
- Occasionally
- Rarely
- Never
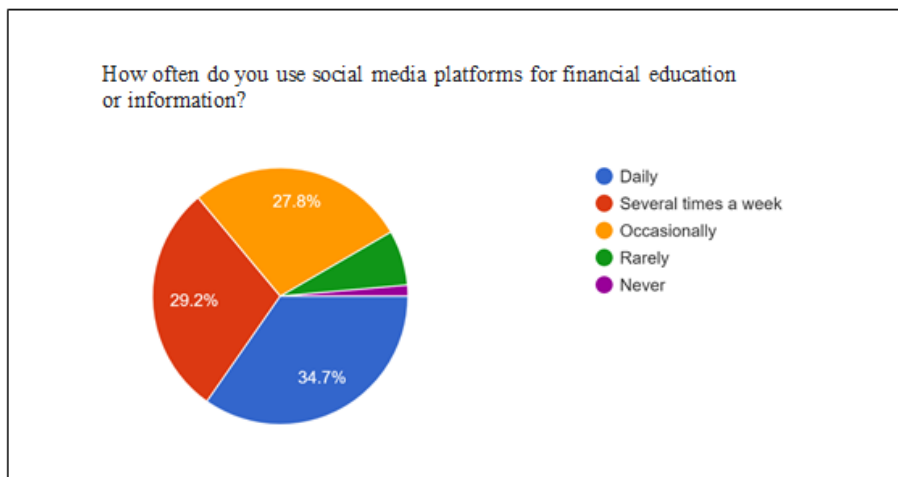
According to the graphic below, about thirty-two percent of people have either made financial decisions based on content they saw on social media or relied on social media for financial guidance. Nonetheless, the majority of them gave a maybe response, indicating that although individuals are still skeptical about relying on social media for financial decisions, they do still use the platform to consume financial information.

Have you ever taken financial advice or made financial decisions based on content you saw on social media?

- Yes
- No
- Maybe
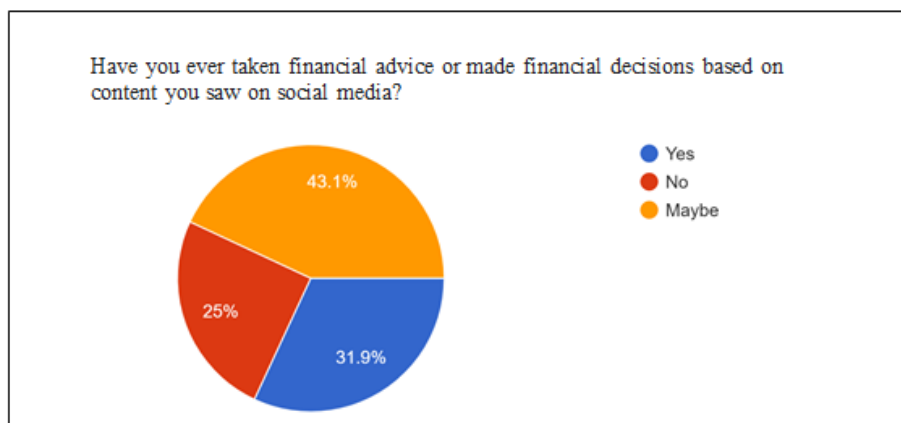
When inquired about the financial topics that the respondents typically seek out on social media, topics like investing strategies (65.38%), budgeting (62.5%), understanding financial products and stock tips were the most popular indicating a strong interest in personal finance management and wealth accumulation through dependence on social media.

Among the finfluencers, Raj Shamani, CA Rachana Ranade, Ankur Warikoo, Sharan Hegde are the most popular choices. In addition, 64% of those surveyed follow social media pages or accounts dedicated to financial news in order to remain informed about market and economic events. (Example: Money Control, Economic Times). Additionally, some of the respondents enjoy taking part in social media live chats and masterclasses. Additionally, the survey also indicates that almost 30% respondents check whether the influencers they follow are SEBI regulated or not. About 50% of the respondents have occasionally made money by listening to the advice given by the finfluencers.

As per the statistics below, about 52% of the respondents strongly agree that Gen-Z's hunger to invest has boomed the financial influencers' industry.

Financial Knowledge and Social Media

● **Impact of Social Media on Financial Knowledge Acquisition.**

Younger generations now choose to use social media as a source of knowledge, making it a popular platform for personal finance. To connect with consumers who are curious to learn more about their finances, financial institutions are concentrating on educational initiatives that integrate many social media channels. According to a 2015 poll, 57% of millennials would rather manage their money with mobile financial apps. 34% of 4,000 investors surveyed said they utilized social media for investing and personal finance. Getting investment ideas from social networking sites increased returns by over 10% and 4%, according to research by the MIT Media Lab. On the other hand, misinformation and incorrect information may result from the openness and absence of

regulations. According to this study, social networking can enhance personal finances by resulting in better outcomes, literacy, advice, and access to personal finance.

● **Influence of social media on financial decision - making processes.**

Gen Z financial decision-making is heavily influenced by social media, with consumerist lifestyles and peer pressure determining spending patterns. Financial advice from experts and influencers can affect decisions in a favorable or bad way. Misinformation and FOMO can cause people to make bad financial decisions. Financial decisions can also be influenced by cognitive biases and heuristics, such as FOMO, availability heuristic, social proof, confirmation bias, and anchoring. Risk aversion can be heightened by fear-inducing information or financial failures, but mistaken expectations and underestimation of financial risks might result from the carefully selected material on platforms such as Instagram. People need to be able to critically assess information and look for a balanced grasp of the benefits and risks associated with money.

● **The role of influencers, bloggers, and online communities in disseminating financial knowledge.**

India's social media influencers have endorsed various finance-related apps, such as Mint, Wealthfront, Zerodha, Groww, Upstox, ET Money, Policybazaar, and Angel Broking. These platforms promote finance-related services and products through targeted advertising campaigns and partnerships with mutual funds and investment firms. Influencers, bloggers, and online communities play a crucial role in disseminating financial knowledge and promoting financial literacy. Influencers provide education and advice on personal finance, investing, and budgeting, serving as role models and sharing their experiences. Bloggers offer in-depth financial content, fostering community engagement and providing long-term value. Online communities, like forums and social media groups, enable the sharing of financial knowledge and experiences among members, offering valuable insights not found in traditional sources. These examples demonstrate how influencers, bloggers, and online communities contribute to the dissemination of financial knowledge and education, helping individuals make informed decisions about their finances.

● **Emerging concepts like Instagram Reels and YouTube shorts**

A broad audience can quickly access short-form video on platforms like Instagram Reels, as well as YouTube shorts, including younger populations who might be less likely to look for traditional financial education tools. The Genz population might not have previously met financial concepts, or do not have the time to access long sessions or masterclasses, can benefit from this accessibility in unimaginable ways.

Bite-sized content is often delivered in reels and short clips, which can help viewers better absorb and digest complex financial topics in a jiffy. Topics can be better retained and information overload can be avoided by segmenting the material for being Genz specific.

Shorts and reels frequently take advantage of pop culture allusions and contemporary trends. Content producers may reach a wider audience and boost viewer engagement by adding financial literacy to popular content, and also engage into collaborations, and paid partnerships

● **Opportunities for improving financial literacy through social media**

Leveraging Social Media for Financial Literacy Enhancement

- Utilizing Educational Content
- Collaborations with Financial Experts
- Interactive Quizzes and Polls
- Live Webinars and Workshops
- Financial Challenges and Competitions
- User-generated Content Campaigns
- Partnerships with Financial Institutions
- Mobile app and tool integration
- Consistent Engagement and Community Building
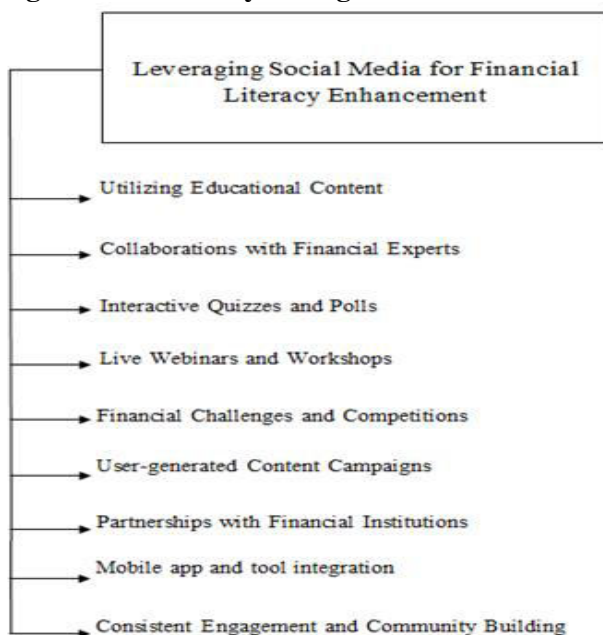
- **Challenges and pitfalls of relying on social media for financial information**

Social media can be a valuable resource for financial information and education, but it also presents challenges. One of the main issues is the lack of quality control and fact-checking, as anyone can create and share content on social media platforms, regardless of their expertise or qualifications. This can lead to misinformation, rumors, and biased advice, potentially leading to uninformed or risky financial decisions.

Shortened attention spans on social media platforms can contribute to oversimplification and the omission of important nuances in financial topics. Influence of biases and conflicts of interest can also lead to biased or self-serving information being disseminated without full disclosure of potential conflicts of interest.

Financial advice shared on social media is often generic and may not take into account an individual's specific financial situation, goals, risk tolerance, or stage of life. Sharing personal financial information or engaging in financial discussions on social media platforms can pose security and privacy concerns, leading to identity theft, fraud, or other cybercrimes.

Emotional decision-making and herd mentality can also arise from social media platforms, leading individuals to make impulsive or irrational financial decisions based on trends, peer pressure, or fear of missing out (FOMO). Filter bubbles and echo chambers created by social media algorithms can limit exposure to diverse perspectives and alternative viewpoints, reinforcing biases.

Excessive use of social media for financial information consumption can become a time-consuming distraction, detracting from other productive activities or personal interactions. To mitigate these challenges, individuals should approach financial information on social media critically, seeking out credible sources, verifying information from multiple sources, and consulting qualified financial professionals when needed. Developing financial literacy skills, exercising skepticism, and practicing discernment can help users navigate the complex landscape of social media while making informed financial decisions.

- **Regulatory concerns and misinformation**

Social media platforms are subject to various regulations governing financial services, advertising, and consumer protection. Enforcing these regulations can be challenging due to the global and decentralized nature of social media, as well as the sheer volume of content generated daily.

Pump and dump schemes, where individuals artificially inflate the price of a financial asset through coordinated buying and hyped-up promotion, pose systemic risks to the financial system. Regulators and platforms must remain vigilant in detecting and preventing such schemes to protect investors and maintain market integrity.

Collaboration among regulators, social media platforms, financial institutions, and users is crucial to address regulatory concerns and combat misinformation related to manipulative marketing tactics in financial products and services.

SEBI has implemented strict disclosure requirements for listed companies and prohibited fraudulent trade practices, but social media platforms have made it difficult to detect and prevent these schemes. Investors should use caution when making investments in unidentified businesses or ones that have abrupt price fluctuations, and they should steer clear of unsolicited investment advice. To strengthen control over manipulative trade activities, SEBI should focus on increasing investor awareness and education, and using advanced technological tools to detect and prevent market manipulations.

FUTURE OF FINFLUENCERS

The future of finfluencers is a blend of financial acumen and digital literacy. They provide guidance in personal finance, promoting transparency, integrity, and education. They use multimedia channels like video masterclasses and live discussions to empower individuals. They collaborate with financial institutions, educators, and thought leaders to curate diverse perspectives, breaking down barriers and democratizing access to financial literacy. Despite the abundance of information, finfluencers remain committed to truth and authenticity, equipping followers with critical inquiry tools.

Through their tireless efforts and unwavering passion, finfluencers inspire a new generation of thinkers, innovators, and changemakers to rise to the challenge and shape a brighter tomorrow for themselves and for generations to come.

CONCLUSION

According to the report, people mainly rely on social media platforms to improve their financial literacy. These platforms provide a wealth of easily available and user-friendly knowledge on a variety of personal financial issues, such as debt management, investing, budgeting, saving, and retirement planning. People may interact

with financial material that speaks to their particular needs and interests and learn at their own speed thanks to the flexibility and convenience of digital media platforms. The study does, however, also recognize that people should use prudence and critical thought when ingesting information from digital media outlets. Despite the abundance of information available on these platforms, not all sources may be trustworthy or truthful. To make sure they are getting accurate and current financial advice, people should cross-reference information from several sources and confirm the content's authenticity. The study concludes by highlighting the beneficial effects of digital media platforms on the literacy of personal finance. These platforms have the capacity to close the knowledge gap and provide people the tools they need to take charge of their financial security. People can improve their financial literacy, make wise financial decisions, and strive toward their financial objectives by taking use of the accessibility and reach of digital media channels. We can also conclude, that over time, there has been a notable shift in the sources people rely on for information and guidance. Traditional avenues such as consultants and accountants have been supplemented, if not replaced, by the accessibility and immediacy of social media platforms. Short-form content and the rise of "finfluencers" (financial influencers) have emerged as influential sources, providing easily digestible advice and insights on financial matters. This transition reflects the evolving preferences of individuals towards more interactive and relatable sources, reshaping the way financial information is disseminated and consumed in the digital age.

REFERENCES

- https://www.irejournals.com/formatedpaper/1704796.pdf

- https://www.dnyanasadhanacollege.org/SeniorCollege/pdf/dnyankosh/Paper%2001.pdf

- https://www.amity.edu/gwalior/jccc/pdf/dec-24.pdf

- https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1109&context=bb_etds

- https://www.wallstreetzen.com/blog/genz-money-social-media-survey/

- https://arno.uvt.nl/show.cgi?fid=162727

- https://www.digitalgrowth.com/blog/banks-credit-unions-fintech-gen-z-finances-habits-social-media

STUDY ON PERSONAL FINANCE AWARENESS IN GEN Z: WITH SPECIAL REFERENCE TO THE EDUCATION SYSTEM OF INDIA

Khushi Bhanushali
Student, First Year, BMS, SVKM's Usha Pravin Gandhi College of Arts, Science and Commerce

ABSTRACT

Generation Z is the generation of upcoming youth in the corporate world. Gen z has started earning which means it is necessary for this generation to understand personal finance management. It has been observed that due to digitisation and heavy influence through social media, Gen Z spends lavishly and often carelessly. Most Indians still live with their parents and often do not have the burden of paying for rent or other maintenance bills. Despite that, the savings rate in the country is an all time low of 5.1% (Reserve Bank of India, March 2022). Absence of savings reduces opportunities of investment.

This research paper aims at studying the general understanding and awareness of Personal Finance. The aim is to study the statistics, figure out the reasons behind the same and provide recommendations accordingly. It also aims at understanding the education system of India and its role in financial literacy of the population. The primary data is through an interview of a Gen Z engineer. A simple analysis of income and expenditure is to be done along with a few questions about finance and awareness of the same. The secondary data is from review of literature that will support the findings of primary research.

Keywords: Personal Finance, Gen Z, Education System of India, Financial Literacy, Savings and Investment.

INTRODUCTION

Gen z:
Generation Z or Gen Z is the population with birth years between mid-to-late 90s and early 2010s (Wikipedia). This generation is often seen indulging in fast-moving trends due to effortless global connectivity. This leads to excessive unorganised expenditure among Gen Z yet also gives scope for more awareness regarding personal finance.

Financial Literacy:
The literacy rate in India is 77.7% (National Statistical Commission, 2018-19) (91.76% in youth) whereas the Financial Literacy Rate among adults in India is not more than 27% (Free Press Journal, August 2023). This is evidence enough that a majority of the Indian Population has access to Education but not Financial Education.

Expenditure Mindset Patterns in India:
There is a very prominent saving culture seen in India. People here believe in keeping funds aside for future expenditure and emergency situations before spending on comforts and luxuries. India's gross savings rate is 30.2% of GDP (Reserve Bank of India, March 2022) and have said to drop at 5.1% in 2023 as mentioned above. Household debt has increased to 36.9% in FY23 (cnbctv18). Investment rate for 2023-24 is 35.8% in the first six months. This shows that while people tend to save, the savings become a dead investment and don't assist much when there is a need for capital.

Debt of Indian Citizens:
Personal loans increased 20% in FY23 led by vehicle and housing loans. As of February 2023, outstanding personal loans amounted to a little more than ₹40 lakh crore. This is a 20.4% increase, compared to the figures in February 2022. Last year, at around that time, the outstanding personal loans in India stood at around ₹33 lakh crore, according to RBI data. (Thehindubusinessline.com)

REVIEW OF LITERATURE
Is Gen Z in India Moving Towards Financial Independence? - A Study of Their Investment Preferences by Mahek Dugar, Vinod Madhavan (May 2023).

This article concludes that generation z is becoming financially independent by earning themselves and exploring various investment options.

Rich Dad, Poor Dad by Robert Kiyosaki.
This book provides the simplest and the most essential lessons on personal finance. The author highlights its importance and explains ways to achieve sound personal financial management through his own examples. It teaches how to make money work for you and build wealth.

A debt-ly trap: Should we be worried about rising personal loans in India? By Dipu Rai.

This article explains the national statistics on debt and explains how Indians are stuck in the debt cycle especially after the Covid pandemic. Indians borrowed money and used it as income during the pandemic which got them deeper in the debt cycle as they were paying expenses with liabilities while no income or assets were being generated.

Financial Literacy is a must at school level (and later too!) - Agree? By Jatin Lodaya.

It talks about the importance of financial education at school level and ahead. It highlights that financial literacy is an important life skills for all and should be inculcated in students irrespective of age.

Generation Z in India: The Pandemic's impact on Technology and Shopping

Behavior by Arundhati Ramesh and Shrushti Sarwate.

This research paper explains the changing trends in consumer behavior with reference to phygital (physical + digital) modes for shopping as the consumer view has changed drastically post Covid Pandemic. It explains why consumers prefer a digital experience along with a physical one.

A Comprehensive Study on Personal Financial Planning with Special Context to Gender Gap in Financial Planning in the Region of North India and South India by Jv'N Manju Singla.

This research paper talks about Financial Planning in India and explains how women are comparatively less financially literate and are less confident in taking financial decisions. It shows the disparity in financial education in India.

RESEARCH METHODOLOGY

The research methodology includes conducting an in-depth interview with a single subject and supporting the findings with secondary data gathered from existing research papers and reputable websites. The external secondary data provides a wider audience and gives apt statistics. This mixed-method approach provided me with comprehensive insights into the research topic of this paper.

OBJECTIVES

1. To observe and study general expenditure patterns in Gen Z.

2. To gauge awareness level about personal finance in Gen Z.

3. To study the reasons behind the current scenario, focusing on the education system in India.

4. To study the available resources to increase awareness.

5. To provide recommendations for improvement.

Interview

An interview of a 21 year old engineer was taken on personal finance.

The findings are as follows:

Monthly salary from a part time job is 15,000. Incentives on average are 5-6000. **Total average income ₹20,000 per month**.

Average Expenses are as follows:

Expenses	Particulars			Amount (₹ per month)
EMI on iphone				2500
Food	200 per day, 30 days			6000
Travelling	Car : 800 per week, 1 week. ₹800	Bike : 135 per day, 2 weeks. ₹1890	Metro : 60 per day, 1 week. ₹840	3530
Weekend Leisure	Every weekend, including food : ₹1000, 4 weeks			4000
Bike maintenance	Every month servicing : ₹2000	Once in three months servicing :		3000

		₹3000. ₹1000 per month.		
Clothing and accessories				500
Rides and trips	Fuel : 800, 3 times per month, ₹2400	Food : 400, 3 times per month, ₹1200		3600
Household consumables				700
Total Average Expenses				**23,830**

Variable Factor: incentives are not fixed.

Average Savings : 2000

Average Investment: ₹0

Awareness about investment options : mutual funds, sneakers (dealing in sneakers), share market, lic savings, business investment, second hand car dealerships.

Rating own financial literacy on a scale of 1 to 10 : 3

Rating peer financial literacy on a scale of 1 to 10 : 7

Rating importance financial literacy on a scale of 1 to 10 : 10

Rating personal finance management on a scale of 1 to 10 : 2

Rating peer finance management on a scale of 1 to 10 : 3

Rating financial education received in his 15 years of education on a scale of 1 to 10 : 1

Analysis

The subject lives with his parents and doesn't have to pay for rent or household bills usually. Despite that, there are barely any savings and absolutely no investments. The subject cannot technically afford all the luxuries he is enjoying yet the money flows that way. The subject also has no assets to his name except for the bike which is a depreciating asset. His money flows from income to liability to expenditure, keeping him in the middle class. Ideally it should flow from assets to income and that will pay for expenditures and liabilities. (Cash Flow Diagram, Rich Dad Poor Dad).

This simple case may be one out of millions yet doesn't fail to show what the big picture is. Majority of Indians spend approximately 8 to 15 years of their life being a student, being on the receiving end of the education system. All of these people and even those who are unfortunately not a part of the education system, go on to earn a living, spend on their living, basically deal with money everyday of their lives. Asking a 1000 people the questions I asked to this one subject won't change the answers as it has become a reality, a truth, that our education system does not bother educating on topics of survival importance such as finance. The subject here is an engineer so definitely well educated, yet never received any financial education whatsoever. The ones who are unfortunately not receiving formal education go out of the picture completely.

₹1.29 lakh crore in FY 23-24 are allocated for the Education Sector in India. It is a huge amount yet it is not even 6 percent of GDP (thehindubusinessline.com). There are 3 crore people employed in the education sector including teaching and non-teaching staff (The Times of India, educationworld.in).

According to a report by the World Economic Forum (WEF), the quality of India's education ranked 90th in the world. The problems are outdated curriculum, insufficient resources and shortage of qualified staff (The Quality of Education in India: Addressing the Challenges, Nov 2023).

As mentioned above, 27% of the population is financially literate and my primary data from the interview showed that many of his peers have basic financial knowledge (rated 7 out of 10) yet don't have sound personal financial management (rated 3 out of 10). Even those who have sufficient knowledge and access to resources end up in debt cycles due to mere inaction. It is easier to earn money than it is to keep it and keep it growing.

Government Measures

The government has taken many measures to increase financial literacy of the country, some of which are as follows:

1. Pradhan Mantri Jan Dhan Yojana (PMJDY) is National Mission for Financial Inclusion to ensure access to financial services at an affordable cost. As on 9th August 2023, the total number of PMJDY Accounts was 50.09 crore. (Press Information Bureau, pib.gov.in).

2. RBI has created critical volume of literature and has uploaded on its website in 13 languages for banks and other stakeholders to download and use so as to create awareness (rbi.org.in).

3. The Financial Literacy Week is an initiative by RBI to promote awareness on key topics every year through a focused campaign. It is from 26 February to 1 March 2024 (rbi.org.in).

4. SEBI started an Investor Protection Fund.

5. SEBI has basic financial courses available on its website for free. SEBI via their website ensures awareness, protection as well as they educate investors about investing laws.

Recommendations to Improve the Scenario

Initiative by the Citizens:

There are millions of courses and tutorials available on the internet other than the ones provided by the government. Many are free or charge a nominal cost. Despite having such information at the tip of our hands, the Indian population refuses to educate themselves financially and make sound financial decisions. Many people may be considered financially literate due to the minimum requirement according to the definition, yet they fail to manage their personal finances efficiently. It is every individual's responsibility to educate themselves and learn basic life skills like money management. At the same time, it is the government's responsibility to ensure equal and convenient access to information and resources to achieve the same. Despite having many programs available to increase awareness, the information of these programs existing itself seldom reaches the masses correctly. There should be more promotion of such schemes as mentioned above.

Improvement in Education:

There are over 200 million students in India (statista.com, 2022) and these will be the future adult citizens of the country. The easiest and most efficient way to make the country financially literate will be to impart those skills to the students of India. This requires a simple regular update in the syllabus and a more practical, realistic approach to teach this new syllabus. Having a financial base in the early years will create curiosity and more scope for in depth awareness in the future. The government realises this as they have introduced numerous schemes but it remains a statement of doubt whether those schemes are implemented and effective or not.

Along with updating the syllabus and teaching methods, it is important to collaborate with various institutions and have regular seminars about the same. It is normally done for students with a commerce of finance background when in fact these students already have access to that knowledge. It should be ensured that students from all streams of study should be educated on at least personal finance.

CONCLUSION

There has been a significant increase in the awareness level regarding finance yet there is much room for improvement. This is a very crucial topic and results will be achieved only if both the citizens and the government take initiatives and do their parts sincerely. With a population of 1.4 billion people (1,437,339,951) (worldometer.com), it is unrealistic to expect the government to ensure personal development of each individual. As woke citizens of our country India, it is our responsibility together to widen our scope of knowledge and educate ourselves on matters of such high importance as finance. Meanwhile, the government can provide better access to resources and ensure financial concepts are introduced at early ages. With the advent of digitisation, internet accessibility and global connectivity, the new era of financial management is not far. All the information one could ever need is packed in the screens in everyone's pockets. That is the age of convenience we live in; and it is important to make the optimum utilisation of the available resources, like all managers say.

REFERENCES

- Mahek Dugar, Vinod Madhavan (May 2023), Is Gen Z in India Moving Towards Financial Independence? - A Study of Their Investment Preferences. Journal of Student Research 12(2)

- https://www.researchgate.net/publication/371515719_Is_Gen_Z_in_India_Moving_Towards_Financial_Independence_-_A_Study_of_Their_Investment_Preferences

- Professor Arun C Mehta (Nov 2023), The Quality of Education in India: Addressing the Challenges.

- https://educationforallinindia.com/quality-of-education-in-india-addressing-the-challenges-november-2023/#:~:text=An%20Outdated%20Curricula%20and%20Syllabus&text=According%20to%20a%20report%20by%20the%20World%20Economic%20Forum%20(WEF,Source%3A%20WEF%2C%202021).

- Jatin Lodaya (Aug, 2023), Financial Literacy is a must at school level (and later too!) - Agree?

- https://www.linkedin.com/pulse/financial-literacy-must-school-level-later-too-agree-jatin-lodaya

- Parvathi Benu (Feb 2024), Ministry of Education's budget slashed by 7 per cent.

- https://www.thehindubusinessline.com/economy/budget/ministry-of-educations-budget-slashed-by-7-per-cent/article67800990.ece

- In India, Financial Literacy Programs Are Lifting Families Out of Debt and Fueling New Prosperity. (Mar 2022)

- https://www.adb.org/results/india-financial-literacy-programs-lifting-families-out-debt-fueling-new-prosperity

- SEBI, Investor Protection Fund.

- https://www.sebi.gov.in/sebiweb/other/OtherAction.do?doFmc=yes&type=10

- National Centre for Financial Education.

- https://www.ncfe.org.in/financial-literacy-initiative-undertaken-by-sebi

- RBI Financials. Reserve Bank of India Finance Literacy Initiatives.

- https://www.rbi.org.in/financialeducation/

- Dipu Rai (Aug 2022), A debt-ly trap: Should we be worried about rising personal loans in India?

- https://www.indiatoday.in/diu/story/rising-personal-loans-india-consumer-debt-levels-pandemic-induced-inflation-1987234-2022-08-12

- Jayapriyanka J (April 2023), Personal loans increase 20% in FY23 led by vehicle and housing loans.

- https://www.thehindubusinessline.com/data-stories/data-focus/personal-loans-increase-20-in-fy23-led-by-vehicle-and-housing-loans/article66736828.ece

- Generation Z, Wikipedia.

- https://en.m.wikipedia.org/wiki/Generation_Z

- Literacy Rate, National Statistical Commission

- https://mospi.gov.in/literacy-rate-india-state-wise-rgi-nsso

- RBI Database for statistics.

- https://m.rbi.org.in//scripts/bs_viewcontent.aspx?Id=2486

- Pradhan Mantri Jan Dhan Yojna

- https://www.pib.gov.in/PressReleasePage.aspx?PRID=1952793

- Employment in Education Sector

- https://timesofindia.indiatimes.com/education/news/total-employment-in-9-select-sectors-including-education-rises-to-3-10-cr-in-july-sep-2021/articleshow/88806118.cms

- Population of India, worldometer.com

- https://www.worldometers.info/world-population/india-population/

- Robert Kiyosaki, Cash Flow Diagram. Rich dad, poor dad.

- https://www.richdad.com/what-are-cash-flow-patterns

- Arundhati Ramesh, Shrushti Sarwate (Nov 2021), Generation Z in India: The Pandemic's impact on Technology and Shopping Behaviour.

- https://www.researchgate.net/publication/364322934

- Jv'N Manju Singla (Jan 2021), A Comprehensive Study on Personal Financial Planning With Special Context to Gender Gap in Financial Planning in the Region of North India and South India.

- https://shodhgangotri.inflibnet.ac.in/bitstream/20.500.14146/10125/1/manju.pdf

TO STUDY ABOUT THE SANCTIONS APPLIED VIA SWIFT AND THE USE OF FINTECH TO NAVIGATE THOSE SANCTIONS

Shashwat Pankaj Shah

Student, Usha Pravin Gandhi College of Science, Arts and Commerce

ABSTRACT

This research paper delves into the complicated interplay between geopolitics and global finance, focusing on the weaponization of the SWIFT payment system as a tool for imposing economic sanctions. Through a comprehensive analysis, the paper examines the geopolitical dynamics driving the weaponization of SWIFT by major powers like the United States and the European Union, explaining key instances of sanctions targeting countries such as Russia and Iran. Additionally, the paper delves into the emergence of alternative payment systems like SPFS and CIPS, reflecting a shifting model in global financial infrastructure. By explaining the financial implications, challenges, and innovations spurred by SWIFT sanctions, this paper contributes to a detailed understanding of the intersection between finance, technology, and geopolitics in the modern world.

Keywords: SWIFT, weaponization, Fintech, SPFS, CIPS, Geopolitics

INTRODUCTION

In the contemporary global arena, the fusion of finance and geopolitics is increasingly conspicuous, with the SWIFT payment system standing out as a pivotal player in this dynamic. Originating in 1973 to streamline financial communications, SWIFT has since become a cornerstone of international finance, facilitating trillions of dollars in daily cross-border transactions. Yet, its central position renders it susceptible to geopolitical pressures, as major powers exploit its infrastructure to impose economic sanctions on rivals. Despite governance structures aiming for neutrality, concerns persist regarding SWIFT's vulnerability and the emergence of alternative payment systems in response to sanctions, highlighting the intricate interplay among finance, technology, and geopolitics.

This paper navigates the intricate layers of SWIFT's weaponization, delving into its historical evolution, geopolitical catalysts, and ensuing financial implications. Furthermore, it examines the rise of alternative payment mechanisms as a countermeasure to SWIFT sanctions, illuminating the transformative influence of geopolitics on global financial frameworks. Through this analysis, a deeper comprehension emerges of the interconnected nature of finance, technology, and geopolitics in shaping the contemporary global landscape, revealing both opportunities and challenges inherent in this complex interrelation.

REVIEW OF LITERATURE

Braun and Koddenbrock (2022) discuss the intertwining of financialization and the establishment of the SWIFT association in the 1970s, emphasizing its role in authorizing cross-border transactions efficiently. Nikkei (2019) highlights the rapid growth of China's CIPS, particularly fuelled by countries under US sanctions and those involved in the Belt and Road Initiative. Angeloni et al. (2022) emphasize the strategic advantages of financial infrastructures like SWIFT and correspondence banks, suggesting their role in exerting economic pressure on aggressors while minimizing collateral damage.

STATEMENT OF THE PROBLEM

The increasing weaponization of the SWIFT payment system for imposing sanctions by the US and EU raises critical questions about this strategy's effectiveness, implications, and unintended consequences. Targeting nations like Russia and Iran, these actions provoke the emergence of alternative payment systems while disrupting global financial flows and stirring retaliatory measures. This research explores the geopolitical motivations and socio-economic consequences of using payment infrastructure for sanctions enforcement, focusing on understanding the challenges and opportunities inherent in this complex intersection of finance, technology, and international relations.

RESEARCH OBJECTIVES:

- To study the necessity and consequences of utilizing payment infrastructure for sanctions, with a particular focus on the weaponization of the SWIFT network by the US and EU.

- To assess the impact of SWIFT bans on countries such as Russia and Iran, while also examining the emergence and significance of alternative payment systems like SPFS and CIPS.

- To evaluate the costs and drawbacks associated with employing SWIFT as a tool for imposing sanctions, considering both economic and geopolitical implications.

RESEARCH METHODOLOGY:

For this research, secondary data will be gathered from diverse sources including research papers, articles, and reputable institutions such as the IMF and World Bank. Additionally, insights from alternative payment systems like SPFS and CIPS will be analyzed. This approach ensures a comprehensive examination of the topic.

LIMITATION:

Relying solely on existing data might mean missing out on some details we could find through our research, especially since primary research wasn't possible. Also, different sources might have different kinds of information, making things inconsistent or biased.

DATA ANALYSIS:

To examine the Utilization Payment Infrastructure for Sanctions and SWIFT as a Geopolitical Lever:

Economic sanctions, demonstrated in responses to conflicts like Russia's actions in Ukraine, are strategic measures to curb aggression by limiting resources and undermining domestic support for war efforts. Compared to military interventions, sanctions offer a non-violent and cost-effective means for the sanctioning entities, reducing the risk of escalation, especially in conflicts involving nuclear powers. However, certain sanctions, particularly those targeting gas and oil exports, risk unintended consequences, including self-inflicted economic harm to dependent states. The central role of the SWIFT payment system in global financial transactions enhances its significance as a leverage point in international relations. The threat of exclusion from SWIFT due to sanctions serves as a potent warning for member organizations and countries, underlining the pivotal role of payment infrastructure in global diplomatic and economic relations.

To Analyze the Weaponization of SWIFT by the US and EU:

Following 9/11, the US Treasury intensified pressure on SWIFT, compelling its cooperation with the Terrorist Finance Tracking Program (TFTP). This collaboration led to the public disclosure of data sharing with the US Treasury in 2006, sparking the "first SWIFT affair." Subsequently, the "second SWIFT affair" arose in 2012 when the US-based advocacy group "United Against Nuclear Iran" campaigned against SWIFT for its continued operations with Iranian entities in violation of EU and US sanctions. The US Senate Banking Committee passed legislation allowing sanctions against SWIFT, leading to the cutoff of 24 Iranian institutions from the global financial signaling system in March 2012. Similarly, EU countries utilized SWIFT for economic sanctions, such as in 2017 when SWIFT disconnected all North Korean banks based on a UN report, and in 2018 when SWIFT delisted Iranian institutions following threats of sanctions from the Trump administration. These instances underscore SWIFT's role as a tool for exerting economic influence on a global scale.

To Study the Impact of SWIFT Sanctions on Russia and Iran:

Russia:

Following the rapid escalation of Russia's invasion of Ukraine, major Western powers took decisive action on February 26th, 2022, by imposing SWIFT bans on select Russian banks. This move effectively severed the international payment messaging access for seven Russian banks, thus denying them entry into global markets. The economic ramifications of a SWIFT ban on Russia are profound. Former Russian Finance Minister Alexei Kudrin estimated that the country's GDP could contract by as much as 5% without SWIFT access. President Medvedev likened such a move to an act of war, emphasizing Russia's heavy dependence on oil and gas exports, which account for approximately 40% of its revenue. This dependency is underscored by the significant decline in the MOEX Oil and Gas index, reflecting Russia's crude oil exports, from pre-sanction levels of 8,648 to 4,645, as depicted in the provided chart.

Source: Tradingview (MOEX Oil and Gas)

Restricting Russian banks from SWIFT represents a significant risk for the global economy. The disruption in energy supply to Europe and global commodity markets could worsen inflationary pressures, including rising oil and gas prices. This complicates the efforts of central banks, such as the Federal Reserve and the European Central Bank, in managing inflation, which is already at elevated levels. Furthermore, defaults on Russian obligations abroad could trigger liquidity shocks in the U.S. and European interbank markets. Analyzing the impact on the Russian economy reveals substantial contractions. Before sanctions, Russia's GDP growth rate stood at 5.6%, but post-sanctions, it plummeted to (2.1) %, as illustrated in the accompanying graph. Additionally, the freezing of Russian assets worth $21.5 billion in EU banks and a total of $300 billion across G7 countries further underscores the severity of the economic consequences.
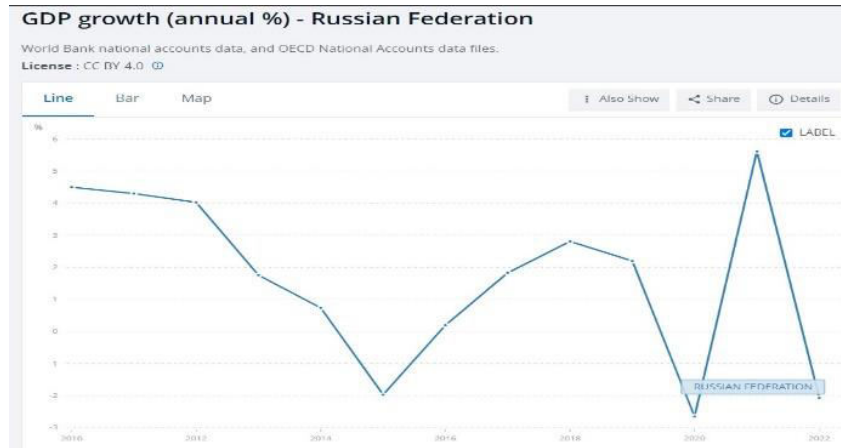
Source: World Bank

The repercussions of SWIFT bans are also evident in the financial markets. The Moscow Exchange (MOEX) witnessed a significant decline, with the MOEX index dropping from pre-sanction levels of 113 to 70, as depicted in the provided chart.

Source: Tradingview (MOEX)

IRAN:

On February 17, 2012, SWIFT announced its readiness to "discontinue its services to sanctioned Iranian financial institutions," following corresponding EU sanctions. Subsequently, on March 15, 2012, SWIFT excluded approximately 30 Iranian financial institutions, including the Central Bank of Iran. These sanctions severely impacted the Iranian economy, triggering a currency crisis and delaying the country's ability to access foreign currency reserves from oil sales.

The SWIFT sanctions had a profound effect on Iran's GDP growth rate. Before the sanctions, Iran experienced robust economic growth, with a GDP growth rate of 5.8%. However, post-sanctions, the GDP growth rate plummeted to negative 3.7%, representing a staggering decline of 163.8%. This significant contraction is illustrated in the provided GDP growth rate chart.
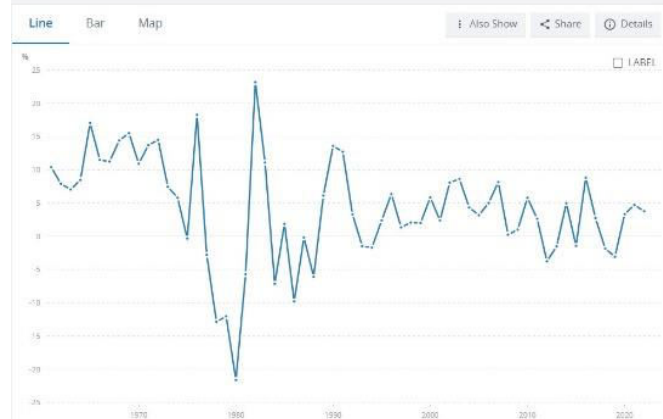
Source: World Bank

The sanctions also severely affected Iran's exports, particularly its oil and gas sector. Initially targeting investments in oil, gas, and petrochemicals, the sanctions were later expanded to include banking, insurance, shipping, and other sectors. As a result, Iran faced challenges in conducting foreign trade and accessing international finance, worsening its economic distress. In response to the sanctions, the Iranian government sought to diversify its sources of foreign exchange and redirect its foreign trade towards Eastern and neighboring countries. Despite these efforts, Iran's exports experienced a substantial decline. According to data from the World Bank, Iranian exports declined from around $156.12 billion to $76.42 billion in the three years following the imposition of sanctions, marking a significant decrease of 51%.
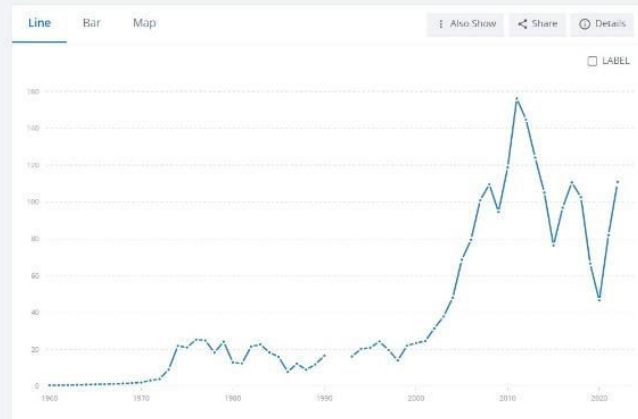
To study how SWIFT sanctions led to the birth of Alternative Payment Systems:
The development of alternative payment systems stemmed from geopolitical tensions and dissatisfaction with the dominance of SWIFT, particularly in the context of US-led sanctions. The EU's objections to the use of its citizens' data in the US Terrorism Financing Tracking Programme and the exclusion of Iran from SWIFT during negotiations over its nuclear program were pivotal moments. This dissatisfaction led to initiatives by Russia, China, and European countries to establish alternative systems.

SPFS (System for Transfer of Financial Messages):
Russia's SPFS, modelled after SWIFT, operates parallel to the latter and is designed to replace SWIFT entirely if Russia were to be cut off from the system. While primarily used within Russia, efforts are being made to promote SPFS internationally, with countries like Venezuela and Iran considering joining the system. Russia has also implemented additional measures, such as the development of its credit card system (Mir) and digital rubble, to mitigate the impact of potential SWIFT sanctions. Additionally, a comparative analysis between SWIFT and SPFS messaging frequencies reveals the growing importance of SPFS in Russia's financial ecosystem.

NUMBER OF FINANCIAL MESSAGES IN RUSSIA
2012–2020

Source: Bank of Russia, BIS, IIF — EconoFact econofact.org
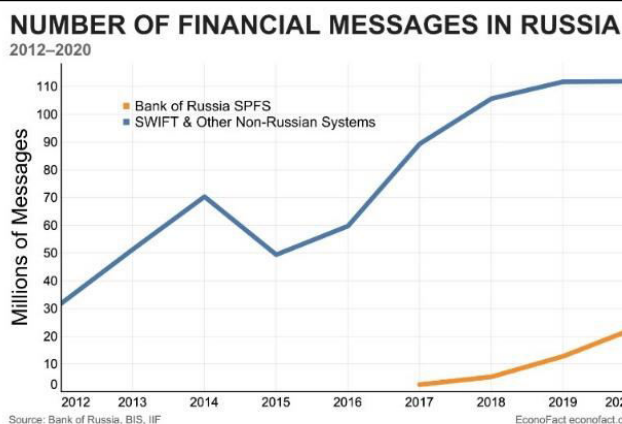
Europe's INSTEX (Instrument in Support of Trade Exchanges):

In response to US pressure and sanctions, France, Germany, and the United Kingdom established INSTEX as an alternative cross-border platform for transactions with Iran. However, its utilization has been limited to barter trade, excluding significant sectors like oil and gas to avoid upsetting the US. Despite its limited scope, INSTEX represents European efforts to circumvent US sanctions and maintain trade with sanctioned countries.

China's CIPS (Cross-Border Interbank Payment System):

China's CIPS, operational since 2015, serves as a comprehensive payment system, incorporating messaging, clearing, and settlement functions. While still reliant on SWIFT for messaging, CIPS offers an alternative framework that reduces dependency on Western financial infrastructure. China's strategic shift towards global connectivity includes initiatives like the Finance Gateway Information Service and the promotion of a central bank digital currency (CBDC) as an alternative to SWIFT and traditional banking systems. Additionally, the graph below illustrates the increasing number of foreign banks accepting CIPS, indicating its growing international acceptance and adoption.

Number of banks accepting CIPS
(excluding for mainland China, Hong Kong, Macao)
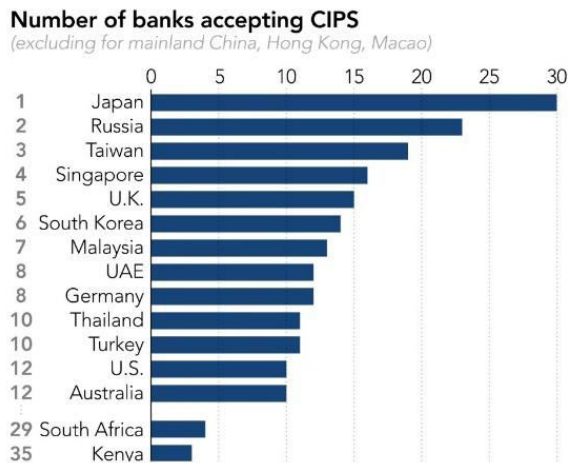
Source: Nikkei Asia

CONCLUSION

The emergence of alternative payment systems reflects a global reconfiguration of financial infrastructure amidst geopolitical tensions and dissatisfaction with existing systems. However, their effectiveness hinges on international cooperation, regulatory frameworks, and technological capabilities. The weaponization of the SWIFT payment system carries several disadvantages and costs. Sanctions, akin to military actions, risk breaching national sovereignty and inviting retaliatory cyber-attacks. While some sanctions may take time to yield effects, severe ones could disproportionately harm vulnerable populations in targeted countries. SWIFT-related sanctions may indirectly impact third parties and foster anti-Western sentiments, prompting non-Western countries to develop alternative systems.

Ignoring warnings about the unintended consequences of SWIFT weaponization, particularly in volatile geopolitical contexts, could lead to adverse outcomes. Hence, fostering international cooperation and embracing technological innovation is vital for navigating geopolitical uncertainties and shaping a more inclusive and resilient global financial ecosystem. While targeted exclusion from SWIFT has significant financial implications and drives innovation in financial technology, it also presents challenges such as increased transaction costs and

operational inefficiencies. Balancing these factors is essential for mitigating the negative impacts of sanctions while fostering financial stability and global cooperation.

REFERENCES

1. "MOEX Oil and Gas Index." TradingView. (Source for chart data)

   Link: https://in.tradingview.com/symbols/MOEX-MOEX/

2. "GDP Growth Rate of Russia." World Bank. (Source for GDP growth rate data)

   Link: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=RU

3. "Moscow Exchange (MOEX) Index." TradingView. (Source for MOEX index data)

   Link: https://in.tradingview.com/symbols/MOEX-MOEX/

4. "GDP Growth Rate of Iran." World Bank. (Source for GDP growth rate data)

   Link: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IR

5. "Iranian Exports Data." World Bank. (Source for Iranian exports data)

   Link: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IR

6. "China's Cross-Border Interbank Payment System (CIPS)." Nikkei Asia. (Source for CIPS data)

   Link: https://asia.nikkei.com/Business/Markets/Rise-of-the-yuan-China-based-payment-settlements-jump-80

7. Majd, Mariam. 2018. "The Cost of a SWIFT Kick: Estimating the Cost of Financial Sanctions on Iran."

8. https://www.unitedagainstnucleariran.com/swift#:~:text=The%20SWIFT%20sanctions%20have%20dealt,dollars%20from%20its%20oil%20sales.

9. https://www.imf.org/en/Search#q=russia&sort=relevancy

10. https://www.federalreserve.gov/econres/ifdp/files/ifdp1281.pdf

11. Iran's experience signals banning Swift will not work as expected. Financial Times.

12. https://www.ft.com/content/e8705d48-bfea-4f95-af3b-af13c1e4305d

EXPLORING THE IMPACT OF DIGITIZATION ON COLLABORATIVE ENGAGEMENT BETWEEN LUXURY BRANDS AND LOCAL ENTITIES IN INDIA: AN INVESTIGATIVE STUDY

Dr. Naresh Sukhani, A.[1] and Ms. Ishani Kapoor[2]

[1]Professor, BMS Department, Usha Pravin Gandhi College of Arts, Science & Commerce
[2]Research Student, Tybms UPG College

ABSTRACT

This exploratory study investigates the impact of digitization on the collaborative engagement between luxury brands and local entities in the Indian market. With the rapid advancement of digital technologies, luxury brands are increasingly leveraging digital platforms to enhance their partnerships with local artisans, designers, and suppliers. Through an in-depth analysis of these collaborations, this study aims to understand how digitization has reshaped the dynamics of engagement and influenced brand strategies in the context of India's luxury industry.

Drawing upon a mixed-methods approach, the research combines quantitative analysis of market trends and consumer behaviour with qualitative insights from industry experts and local stakeholders. The findings reveal a multifaceted impact of digitization on collaborative engagement, spanning various aspects such as communication, accessibility, and brand visibility. Digital platforms have emerged as powerful tools for luxury brands to connect with local entities, streamline collaboration processes, and amplify the reach and impact of their initiatives.

Furthermore, digitization has facilitated greater transparency and authenticity in the collaborative process, enabling luxury brands to showcase the craftsmanship and cultural heritage of their local partners to a global audience. Additionally, digital technologies have empowered local entities with access to new markets, resources, and opportunities for growth, thereby fostering mutually beneficial relationships between luxury brands and local stakeholders.

The study also highlights the challenges and opportunities posed by digitization in the context of collaborative engagement, including issues related to data privacy, digital literacy, and market competition. By understanding the evolving dynamics of digitization and collaborative engagement, luxury brands can develop strategic initiatives to leverage digital technologies effectively and enhance their relationships with local entities in India.

In conclusion, this study provides valuable insights into the transformative impact of digitization on collaborative engagement in India's luxury industry. By embracing digital innovation and fostering meaningful partnerships with local stakeholders, luxury brands can navigate the complexities of the digital landscape and drive sustainable growth in the dynamic Indian market.

INTRODUCTION

The collaboration between luxury brands and local entities in an Indian market represents a strategic fusion of global sophistication and regional expertise. In an era of rapid digitisation, this partnership transcends geographical boundaries, creating a harmonious blend that leverages the distinctive strengths of luxury brands as well as local entities. Luxury brands, renowned for their global allure, craftsmanship, and heritage, find resonance with the nuanced insights and cultural understanding along with diversity brought by local entities. This collaboration not only fosters innovation and enriches customer experiences but also opens avenues for market expansion and strategic positioning. Through the lens of digitisation, this synergy emerges as a catalyst for reaching new audiences, navigating diverse cultural landscapes, and staying agile in response to evolving market trends. Together, luxury brands and local entities forge a dynamic alliance that not only sustains the essence of luxury but also cultivates a unique and authentic narrative in the Indian market.

This paper presents the collaboration, partnership and alliances between Luxury brands and local entities enhanced by the use of digitisation.

RESEARCH METHODOLOGY

Target Group Selected:
The respondents selected for this research study were local artisans and entities of India, urban segments of India, local entities decision makers, digital small business owners, luxury brand executives & managers, digital creators, students and educators between 15-100 years of age and local entities' decision makers.

Research Objectives:

1. To understand motivation and driving factors that prompt luxury brands to collaborate with local entities in Indian markets.

2. To study and analyse the critical success factors that contribute to the effectiveness of collaborations between luxury brands and local entities.

3. To explore strategies for navigating cultural differences and fostering a harmonious relationship.

4. To examine the market entry strategies employed by luxury brands when collaborating with local entities in diverse Indian markets.

Research Questions:

1) How does digitisation facilitate and impact the collaborations between local entities and luxury brands in Indian markets.

2) What are the primary motivations for luxury brands to collaborate with local entities in the Indian market.

3) What challenges or barriers do luxury brands and local entities commonly face in implementing digitised collaborations in the Indian markets
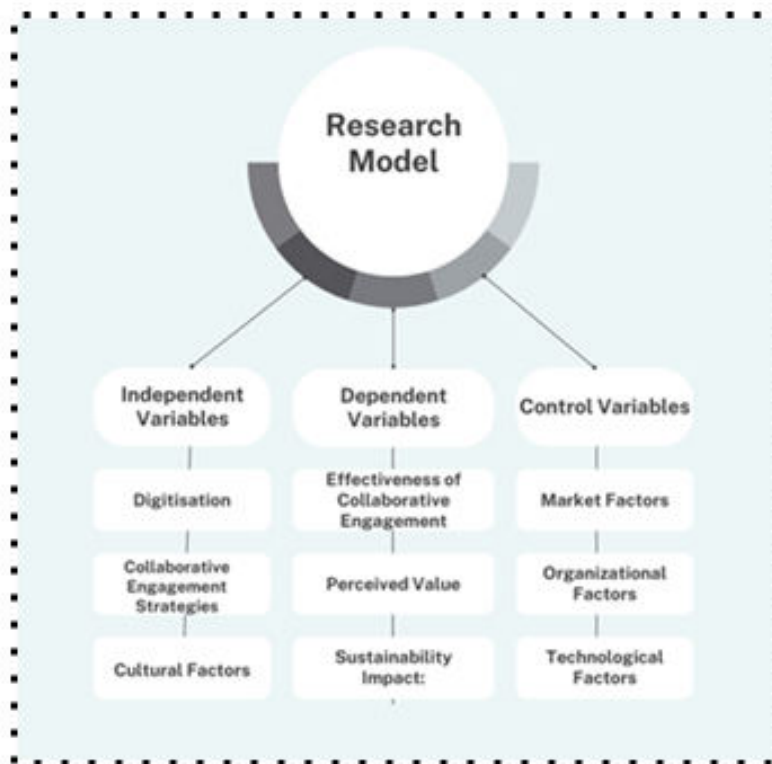
RESEARCH MODEL

Importance of the Study

The study on collaborations between luxury brands and local entities in the Indian market using digitization holds paramount importance for comprehending the intricate dynamics of the business landscape. It provides valuable insights into the strategies employed by luxury brands to expand their market presence across diverse cultural and economic contexts. The examination of the role of digitization in these collaborations sheds light on the technological advancements shaping the luxury industry, influencing communication, marketing, and operational aspects. Moreover, the study delves into the crucial aspects of cultural sensitivity and localization, offering insights into how luxury brands adapt their products and marketing strategies to align with local cultures and preferences. By exploring consumer behaviour and preferences across regions, researchers gain a nuanced understanding of the varying demands in Indian markets. The economic implications of these collaborations, affecting employment, trade balances, and overall economic development, further underscore the significance of the study. Ultimately, the research contributes to a comprehensive understanding of how successful collaborations can provide a competitive advantage in the luxury market, benefiting academics, industry professionals, and policymakers alike.

REVIEW OF LITERATURE

The literature on collaborative engagement between luxury brands and local entities in the context of digitization reveals several key themes and insights.

Digitization in the Luxury Industry: The luxury industry is experiencing a significant shift towards digitization, driven by changing consumer behaviours and technological advancements (Kapferer & Bastien, 2012). Digital platforms and tools are increasingly integral to brand communication, customer engagement, and sales channels (Okonkwo, 2010).

Collaborative Engagement in Luxury Branding: Collaborations between luxury brands and local entities have emerged as a strategic approach to leverage local expertise, craftsmanship, and cultural heritage (Fionda & Moore, 2009). Such collaborations often entail partnerships with artisans, craftsmen, and local businesses for product design, production, and marketing (Han et al., 2010).

Impact of Digitization on Collaboration: Digitization has transformed the dynamics of collaborative engagements in the luxury industry. Digital platforms enable brands to identify and connect with local entities more efficiently, facilitating smoother collaboration processes (Kumar & Mirchandani, 2012). Moreover, digitization enhances transparency and traceability in supply chains, fostering trust and accountability in collaborative relationships (Moon et al., 2019).

Challenges and Opportunities: While digitization offers numerous opportunities for collaborative engagement, it also presents challenges. Luxury brands must navigate issues related to intellectual property rights, quality control, and brand dilution when collaborating with local entities (Kapferer & Tabatoni, 2012). Additionally, the rapid pace of technological change requires brands and local entities to continuously adapt their strategies and capabilities (Amine et al., 2014).

Cultural Considerations: Cultural factors play a crucial role in shaping collaborative engagements between luxury brands and local entities. Brands must navigate cultural sensitivities and differences in business practices to build successful partnerships (Kapferer & Bastien, 2009). Effective collaboration often requires a deep understanding of local culture, values, and traditions (Kang et al., 2012).

Sustainability and Ethical Concerns: Digitization has brought increased attention to sustainability and ethical considerations in collaborative engagements. Luxury brands are under pressure to ensure that collaborations contribute positively to local economies, communities, and environments (Stern & Ahsan, 2019). Transparency and ethical sourcing practices are increasingly important for maintaining brand reputation and consumer trust (Han et al., 2019).

In summary, the literature highlights the evolving landscape of collaborative engagement between luxury brands and local entities in the digital age. While digitization presents opportunities for innovation and efficiency, it also poses challenges that must be carefully navigated to build sustainable and mutually beneficial partnerships.

METHODS OF DATA COLLECTION

For this study both primary and secondary sources of data have been utilized for the study in reference to the urban segment of India and the local artisans. The Primary data was collected through questionnaire to study the partnerships happening between local entities and luxury brands in India using digitisation. Data has been collected through online/Google questionnaire form. For the secondary data purposes, various secondary sources such as research papers and web sites will be utilized by research scholar. Multiple choice questions and five point ranking scale will be established by the scholar especially for this study .

LIMITATIONS OF THE STUDY

Since the Study is an Individual Effort. They are as Follows:

Study Limitations:

1. **Contextual Generalizability:**
Findings may be context-specific to luxury brands and local entities in India, limiting direct applicability to other regions or industries.

2. **Sample Size and Scope:**
a. Limitations in sample size and scope may restrict the depth of insights; a larger and diverse sample could enhance comprehensiveness.

3. **Time Constraints:**
a. Time limitations may impact the depth of analysis and hinder capturing long-term effects of digitization on collaborative engagements.

4. **External Factors:**
a. Unaccounted external factors (e.g., economic conditions, regulatory changes) may influence collaborations beyond the study's control.

5. **Subjectivity and Bias:**
a. Inherent subjectivity or bias in data interpretation and research methods may influence the validity and reliability of findings.

6. **Ethical Considerations:**
a. Ethical considerations (privacy, confidentiality) may impact the credibility and trustworthiness of research outcomes.

7. **Unforeseen Variables:**
a. Despite efforts to control variables, unforeseen factors influencing collaborations may not have been fully accounted for.

8. **Limited Respondents:**
a. The study is confined to 126 respondents, potentially affecting the breadth of perspectives and generalizability.

An Investigative Study," the variables can be categorised into independent, dependent, and control variables. Here's a breakdown:

Independent Variables:
- **Digitization**: The level of digital adoption and integration within luxury brands and local entities.

- **Collaborative Engagement Strategies**: Various approaches used by luxury brands and local entities to collaborate, such as joint marketing campaigns, co-design initiatives, or supply chain integration.

- **Cultural Factors**: Cultural differences and norms that influence collaborative engagements, including attitudes towards luxury, business practices, and communication styles.

Dependent Variables:
- **Effectiveness of Collaborative Engagement**: The degree to which collaborative engagements between luxury brands and local entities achieve their intended goals, such as enhancing brand visibility, improving product quality, or increasing market share.

- **Perceived Value**: Stakeholders' perceptions of the value derived from collaborative engagements, including financial benefits, brand equity enhancement, and cultural preservation.

- **Sustainability Impact**: The environmental, social, and economic sustainability outcomes associated with collaborative engagements, such as reduced carbon footprint, preservation of traditional craftsmanship, and economic empowerment of local communities.

Control Variables:
- **Market Factors**: External market conditions and competitive dynamics that may influence collaborative engagements, such as consumer preferences, competitor actions, and regulatory changes.

- **Organizational Factors**: Internal factors within luxury brands and local entities that could affect collaborative engagements, including organizational culture, resources, and capabilities.

- **Technological Factors**: Other technological advancements or disruptions beyond digitization that may impact collaborative engagements, such as advancements in logistics, production techniques, or communication technologies.

By examining the relationships between these variables, the study aims to uncover insights into how digitization influences collaborative engagements between luxury brands and local entities in India.

DATA GATHERING
The online/Google forms serve as a platform to spread the survey publicly. Out of 122 Respondents, 9 Business Owners,8 luxury brand professionals, 7 local artisans are asked to take part in the study individually and virtually using an online survey tool. The online media functions as a platform to spread the survey publically.

DATA ANALYSIS AND INTERPRETATION

Do you think digitization / social media helps luxury brands and local entities collaborate?
126 responses
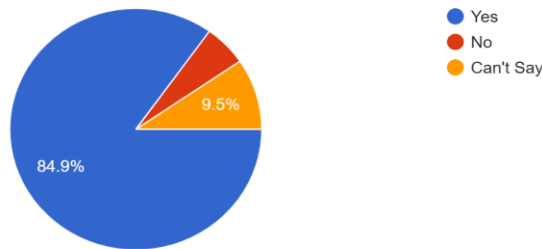
1. Interpretation:

Around 84.9% of the population from the respondents think that digitisation/ social media helps luxury brands and local entities collaborate, while 5% think it does not.

Which market entry strategies do you believe luxury brands commonly employ when collaborating with local entities? (Please rank the selected strategies in order of importance).
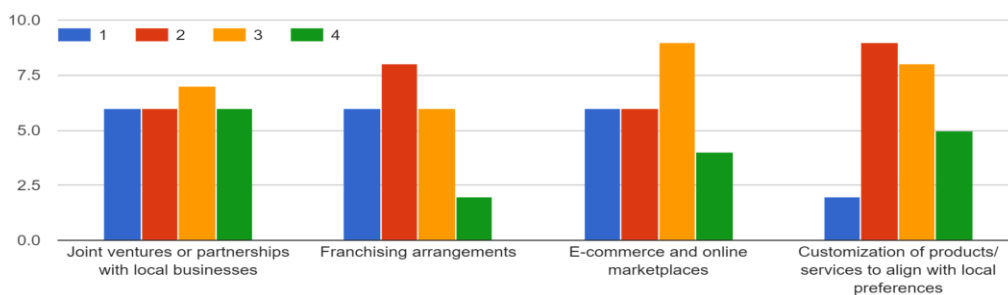
2. Interpretation:

According to the survey performed, following market entry strategies luxury brands commonly employ when collaborating with local entities and ranks are given in importance:

1. Customisation of products/ services to align with local preferences.

2. Ecommerce and online marketplaces

3. Franchising Arrangements

4. Joint Ventures or partnerships with local businesses.

Do you feel that the collaboration between luxury brands and local artisans has led to profitability of local entities ?
126 responses
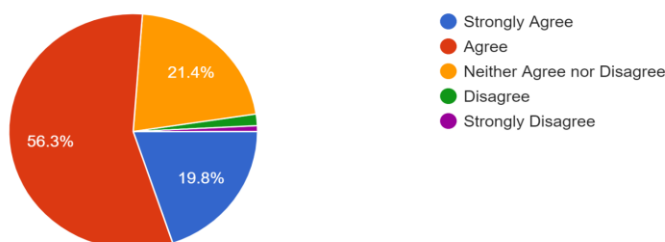
3. Interpretation:

Out of the total population, 56.3% agree, 21.4% neither agree nor disagree, 19.8% strongly agree that the collaborations between luxury brands and local entities has led to the profitability of local entities in India.

How do you foresee the future of collaborations in the luxury industry in the Indian market, taking into account the ongoing trends in digitization?
126 responses
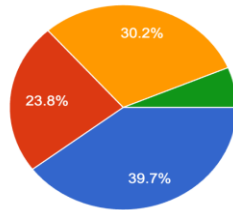
- Growth of digitized collaborations in Indian luxury.
- Emphasis on innovative digital technologies in collaborations
- Opportunities to leverage digitization for enhanced customer experiences.
- Challenges in adapting to evolving digitization trends.

4. Interpretation:

Out of the total population, 39.7% believe that the future of these collabs will lead to growth of digitised collaborations in Indian luxury, 23.8% believe that it will create emphasis on innovative digital technologies in collaborations, while, 30.2% believe that it will create opportunities to leverage digitisation for enhanced customer experiences.

Assess stakeholders' perceptions of collaborative engagements between luxury brands and local entities, considering financial benefits, brand equity, and cultural preservation.
26 responses
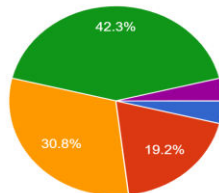
- Low Perception of Value
- Moderate Perception of Value
- Neutral
- High Perception of Value
- Very High Perception of Value

5. Interpretation:

Around 42.3% of population have high perception about collaborative engagements between luxury brands and local entities, considering financial benefits, brand equity and cultural perception. 30.8% have a neutral perception and 19.2% have a moderate perception.

FUTURE SCOPE OF RESEARCH:

1. Survey in the Rural India can be done to understand the impact and efficiency of OTT platforms with a larger Sample.

2. Bigger samples can be undertaken as the sample for this research was relatively small when Compared to the GEN Z population in India who has access to digital forms of entertainment.

CONCLUSION

Luxury brands are leveraging digital platforms for immersive experiences and strategic partnerships, adapting to the shift in consumer behaviour towards online interactions. As we look ahead, the continuous integration of emerging technologies and the interplay of cultural nuances are expected to shape the evolving landscape. Stakeholders must remain agile, considering sustainability, social responsibility, and ethical dimensions in collaborative strategies. This research contributes to academic understanding while offering practical insights for industry practitioners navigating the complexities of digital collaboration in the luxury sector. As the digital landscape evolves, so must our strategies, ensuring a resilient and thriving ecosystem for luxury brands and local entities in India.

RECOMMENDATION & SUGGESTIONS

1. **Digital Strategies**

Explore successful digital initiatives in luxury brand collaborations, emphasizing case studies and online experiences.

2. **Cultural Sensitivity**

Emphasize cultural nuances in digital collaborations, providing concise recommendations.

3. **Data Security and Privacy**

Address data security concerns, providing concise recommendations for robust measures.

4. **Sustainability Integration**

Investigate how luxury brands incorporate sustainability, offering concise recommendations.

REFERENCES OF THE STUDY

1. Amine, A., Magnusson, P., & Strandvik, T. (2014). Service innovation and collaborative value creation: Lessons from a luxury fashion case. Journal of Retailing and Consumer Services, 21(6), 911-918.

2. Fionda, A. M., & Moore, C. M. (2009). The anatomy of the luxury fashion brand. Journal of Brand Management, 16(5-6), 347-363.

3. Han, J. K., Nunes, J. C., & Dreze, X. (2010). Signaling status with luxury goods: The role of brand prominence. Journal of Marketing, 74(4), 15-30.

4. Han, H., Hwang, J., & Lee, M. (2019). The impact of luxury brand experiences on engagement and loyalty: Implications for hospitality management. International Journal of Hospitality Management, 82, 222-233.

5. Kang, J., Tang, L., Fiore, A. M., & Kim, J. (2012). The impact of cultural differences on online consumer complain behavior. Journal of Electronic Commerce Research, 13(4), 303-320.

6. Kapferer, J. N., & Bastien, V. (2009). The specificity of luxury management: Turning marketing upside down. Journal of Brand Management, 16(5-6), 311-322.

7. Kapferer, J. N., & Bastien, V. (2012). The luxury strategy: Break the rules of marketing to build luxury brands. Kogan Page Publishers.

8. Kapferer, J. N., & Tabatoni, O. (2012). Luxury brand partnerships: The collaboration continuum. Journal of Brand Management, 19(8), 672-684.

9. Kumar, V., & Mirchandani, R. (2012). Increasing the ROI of social media marketing. MIT Sloan Management Review, 54(1), 55.

10. Moon, S., Lee, K., & Lee, H. (2019). How digitization affects international fashion retail: An empirical analysis of U.S. fashion retail firms. Journal of Fashion Marketing and Management: An International Journal, 23(1), 43-59.

11. Okonkwo, U. (2010). Luxury online: Styles, systems, strategies. Palgrave Macmillan.

12. Stern, S., & Ahsan, K. (2019). Do luxury brands need sustainability? Investigating the value of sustainability to luxury brand consumers. Journal of Business Research, 101, 725-732.

MUSIC CONSUMPTION PREFERENCES OF GEN Z

Jinakshi Gandhi
Student Researcher, Usha Pravin Gandhi College of Arts, Science and Commerce; jinakshigandhi@gmail.com

ABSTRACT
Generation Z (Gen Z), represents a demographic cohort characterised by their digital nativism and diverse media consumption habits. With the proliferation of digital technologies and streaming platforms, understanding how Gen Z engages with music across various digital channels is essential for industry stakeholders, marketers, and cultural analysts. This research paper aims to provide a concise overview of music consumption patterns among Gen Z across different platforms, shedding light on their preferences, behaviours, music taste and the evolving landscape of digital music consumption.

It provides insights into the platforms, devices, and formats that Gen Z prefers for accessing and enjoying music, based on data from surveys, statistical analysis and secondary data.Gen Z's musical inclinations, which include genres like pop, hip hop, R&B, Soul, cultural, and others, demonstrate that young people are appreciative of and receptive to a wide range of musical forms,which is further scrutinised in the paper .

Keywords: consumption, Genz, preferences, streaming platforms, digital, music, genres.

INTRODUCTION
Generation Z's, born between the mid-1990s and early 2010s, music consumption is distinguished by its diversity, dynamism, and emphasis on digital media across a range of channels.Gen Z is open to music from many languages and cultures in a globalised world, searching out foreign musicians, genres, and sounds that expand their musical horizons. . The varied landscape of Gen Z's music consumption habits is influenced by social media integration, alternative formats, user-generated content, personalised curation, and streaming platforms. Industry participants must adjust to changing tastes and habits as Gen Z continues to influence how music is consumed in the future. They may do this by utilizing digital technology and cultural insights to successfully engage this crucial generational group.The study also investigates the types of music content that resonate with Gen Z, such as platforms,genres, live performances, and user-generated content.

REVIEW OF LITERATURE

1. Freeman Sophie Olivia; AoIR Selected Papers of Internet Research (2019)-
This research investigates the intricate connection between algorithmic culture and music recommendation systems. It makes the case that we rely on music recommender and streaming services like Spotify to discover new music, create the mood, and soundtrack our personal lives. Our confidence in these systems declines as these recommendations become more accurate. The study demonstrates that Spotify's discovery features and music recommendation system are representative of algorithmic culture by conducting a critical analysis of these technologies.

2. Siber (2019) - The thesis explores the cultural impact and economic viability of music streaming platforms, focusing on recommendation algorithms. It highlights the role of human curators and the challenges of a star-driven marketplace, and the potential benefits of contextually aware technology in reshaping recommendation algorithms.

3. Stetler (2022) - Understanding the factors driving popular music is a common curiosity among listeners, musicians, and producers. Scholars have developed models to predict music popularity, focusing on accuracy and influencing characteristics.

MUSIC CONSUMPTION AMONG GENZ
Gen Z's music consumption is primarily driven by streaming platforms like Spotify, Apple Music, Amazon Music, and YouTube Music, which offer on-demand access to extensive catalogs of songs, albums, and playlists. Social media platforms like TikTok, Instagram, Snapchat, and Twitter play a significant role in shaping Gen Z's music consumption habits, with viral challenges, user-generated content, and influencer endorsements contributing to the spread and popularity of songs and artists.

User-generated content platforms like SoundCloud, Bandcamp, and YouTube enable aspiring musicians, DIY artists, and remix culture to thrive, allowing them to showcase their talents and collaborate with peers. Traditional radio remains relevant, but online radio platforms like Pandora, iHeartRadio, and SiriusXM also play a significant role in Gen Z's music consumption. Podcasts have gained popularity, providing a platform for music discussion, interviews, and storytelling.

Physical formats like vinyl records, cassette tapes, and CDs also appeal to Gen Z's desire for authenticity, nostalgia, and tangible connections to their favorite music. Understanding Gen Z's music consumption habits is crucial for stakeholders in the music industry to effectively engage with this demographic, tailor marketing strategies, and meet their evolving needs and preferences in the digital age.

RISE OF STREAMING PLATFORMS
The rise of music streaming services has significantly impacted the music industry, with Generation Z and Millennials shifting away from digital downloads and physical media to platforms like YouTube, Spotify, and Apple Music. These services offer extensive music collections, customizable playlists, and simple sharing options, allowing listeners to access their favorite songs and artists instantly. Artists release music directly to these services, leading to faster turnaround times and more frequent releases. Social media platforms like TikTok, Instagram, and Snapchat also play a significant role in discovering and sharing music among Generation Z. To effectively interact with this generation, stakeholders in the music industry must understand different music consumption streams within this group.

MUSIC GENRE PREFERENCES OF GENZ
Generation Z's diverse interests make it difficult to identify a single genre or artist they enjoy. However, several popular genres and performers resonate with them. Pop music, with artists like Billie Eilish, Ariana Grande, Taylor Swift, and BTS, appeals to their diverse tastes and desire for mass appeal. Hip-hop and rap music, with its emphasis on storytelling, authenticity, and social criticism, resonates with Gen Z's principles of self-expression, social justice, and cultural awareness. Alternative and indie music, with artists like Lorde, Harry Styles, and Tame Impala, attracts Gen Z's attention. Electronic dance music (EDM) is popular due to its upbeat beats and live performances. R&B and soul music, with artists like SZA, Frank Ocean, and H.E.R., appeal to Gen Z's soulful desires. Rock and punk continue to attract Gen Z's attention.

SOCIAL AND CULTURAL IMPORTANCE OF MUSIC AMONG GENZ
Gen Zers are deeply connected to music, which serves as a social glue to promote relationships and common experiences. Live performances, music festivals, and concerts are places where people honor their favorite musicians and take in the crowd's enthusiasm. Music is a powerful instrument for identity building and self-expression, as people can create their own original soundtracks that represent their preferences, ideals, and life experiences. Gen Zers express their identities, affiliations, and goals through music, joining online fandoms focused on their favorite musicians or bands or identifying with certain genres like hip-hop, indie rock, or K-pop. The emergence of virtual communities and online platforms has revolutionized the way Gen Z listens to music, fostering awareness for various viewpoints, customs, and worldviews. Live events and performances are essential parts of Gen Z's musical journeys, providing opportunities to interact with favorite musicians, enjoy live music, and create lasting memories with friends. The rise of music streaming services has shifted Generation Z and Millennials away from digital downloads and physical media, favouring services like YouTube, Spotify, and Apple Music.

RESEARCH METHODOLOGY
This study's research methodology takes a thorough approach that incorporates primary and secondary data sources. Primary data collection is the process of directly obtaining information from primary sources, including surveys through Google form.

Secondary data refers to the use of pre-existing information, such as reports, databases, and scholarly literature, in order to support and confirm the results of primary research. This research aims to provide a comprehensive examination and understanding of the topic by using an amalgamation of various approaches, guaranteeing an all-encompassing and dependable outcome .This data includes findings on Gen Z music consumption from current studies, market research reports, and articles from reputable and verifiable outlets like Spotify.

OBJECTIVES OF THE RESEARCH
- The study aims to understand the current trends in music consumption among GenZ individuals, including preferred genres, formats, and platforms like YouTube and Spotify. It also explores demographic characteristics such as age, gender, and cultural background, which can influence their music preferences. Factors such as peer influence, family background, cultural influences, marketing strategies, streaming platform data, and technological advancements are also explored.

- Digital behavior analysis is conducted to analyze Gen Z's digital behavior related to music consumption, including frequency of listening, device usage, streaming habits, playlist creation, and engagement with music-related content on social media.

- The study also examines the impact of technological advancements on Gen Z's music consumption behavior and attitudes Future projections are made based on current trends and emerging technologies, providing insights for music industry stakeholders to adapt their strategies accordingly.

- The study also explores Gen Z's perceptions and engagement with music brands, artists, labels, and influencers, and how these perceptions influence their music consumption decisions.

LIMITATIONS OF THE STUDY

- **Sample Bias:** The results may contain biases since the sample population may not be entirely representative of the Generation Z population. The sample comes from a similar socioeconomic and geographic background.

- **Temporal Validity:** The results might go out of date very rapidly due to the speedy advancement of technology and changes in the music business. For instance, the significance of the research findings may change over time depending on how well-liked particular streaming services or musical genres are among Generation Z.

- The target demographic was an essential problem since it was challenging to find people from Generation Z that actively used streaming services to consume music and were inclined towards music.

RESEARCH DATA INTERPRETATION

- **Target Group Age**

The respondents selected for this research study were the Gen Z population from the age group of (14-27)
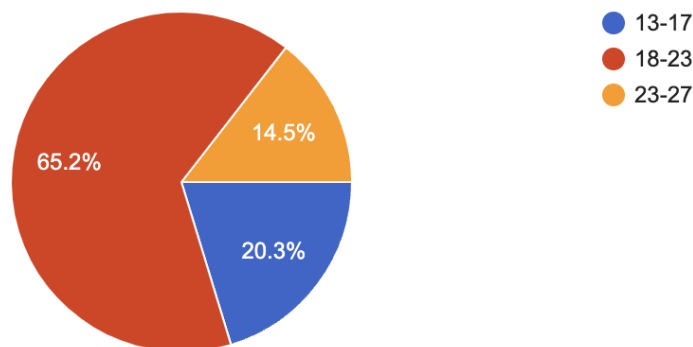
The pie chart shows that the majority of students in the sample are between 13-17 years old, followed by 23-27 years old, and 18-23 years old. The largest portion (65.2%) is labelled "13-17", while the smallest (14.5%) is labelled "18-23". These data points indicate the age distribution of students in the sample.

- **Frequency of listening to Music**
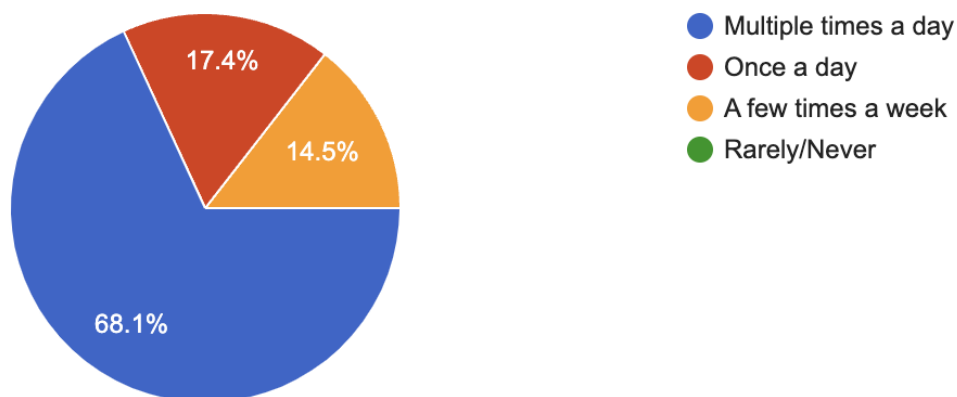
It appears that the majority of people surveyed, 68.1%, listen to music once a day,while none of them don't listen to music at any time of the day.

- Frequency of attending live music events or places where music is the dominant medium of entertainment ? (concerts, clubbing, live singing events etc.)
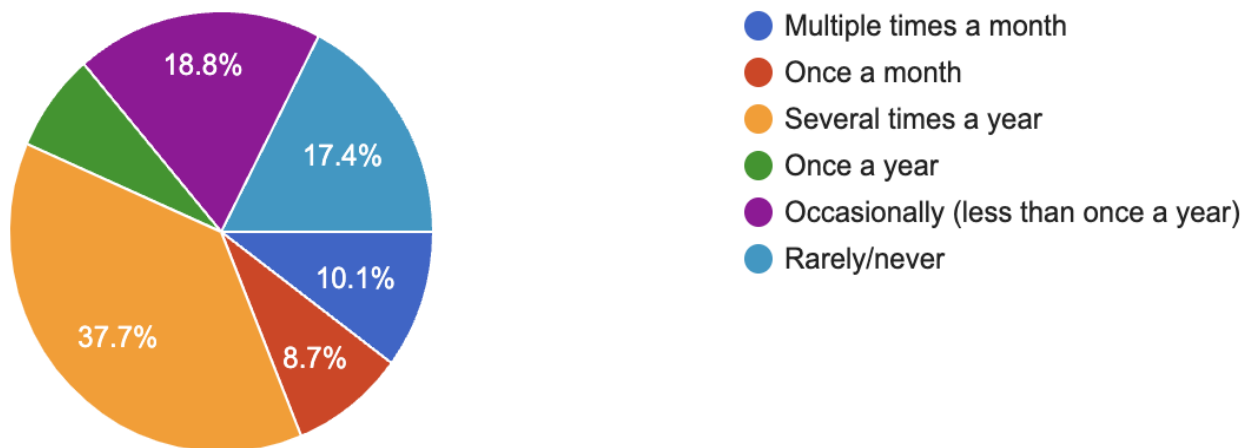
The most frequent category is occasionally (less than once a year), at 37.7%.exclamation This suggests that while many people attend live music events, they don't do so very often.exclamation It is possible that these people attend music festivals or other large events that only happen a few times a year.

The next largest category is multiple times a month, at 18.8%.exclamation This suggests that there is a significant minority of people who are very frequent attendees of live music events.

- **Preferred music genres**
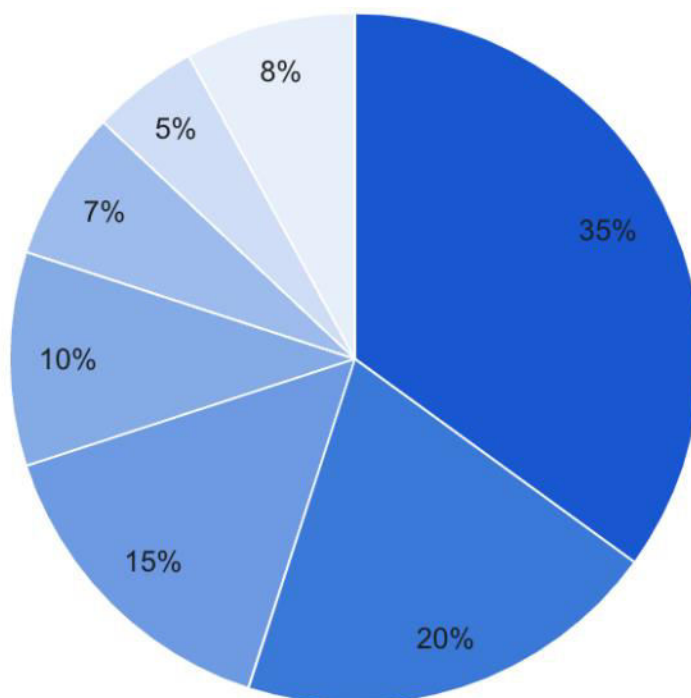
- Pop Music: 42.3% of respondents indicated that Pop Music is their favorite genre.

- Hip-Hop and Rap: 21.2% of respondents selected Hip-Hop and Rap as their favorite genre.

- Indie and Alternative: 14.5% of respondents reported that Indie and Alternative is their favorite genre.

- Electronic Dance Music (EDM): 7.3% of respondents enjoy Electronic Dance Music the most.

- R&B and Soul: 5.6% of respondents indicated that R&B and Soul is their favorite genre.

- Rock and Punk: 4.5% of respondents selected Rock and Punk as their favorite genre.

- Cultural/Religious: 4.5% of respondents reported that Cultural/Religious is their favorite genre.

The survey suggests that Pop Music is the most popular genre among the respondents, followed by Hip-Hop and Rap and Indie and Alternative.

- **Self - Curation of Playlists**
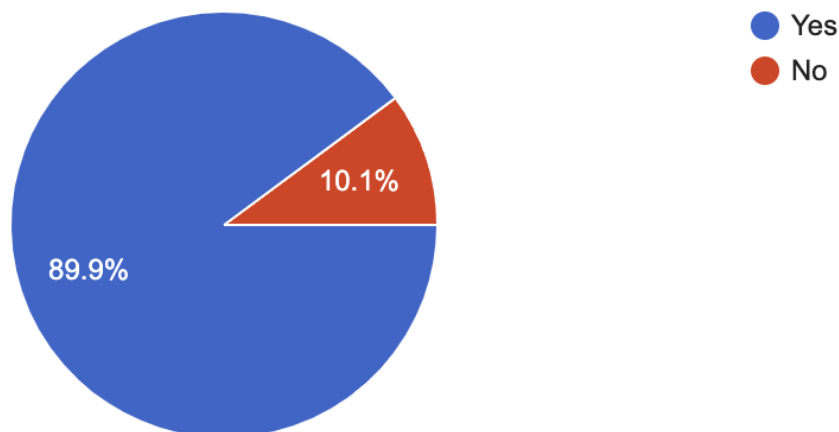
According to the pie chart, the majority of respondents (89.7%) generate their own playlists on the streaming service, indicating that users prefer a personalized experience and that this feature encourages them to use the app more frequently.

- **Opinion on collaborations between artists from different genres? (ex. Selena Gomez and Rema)**
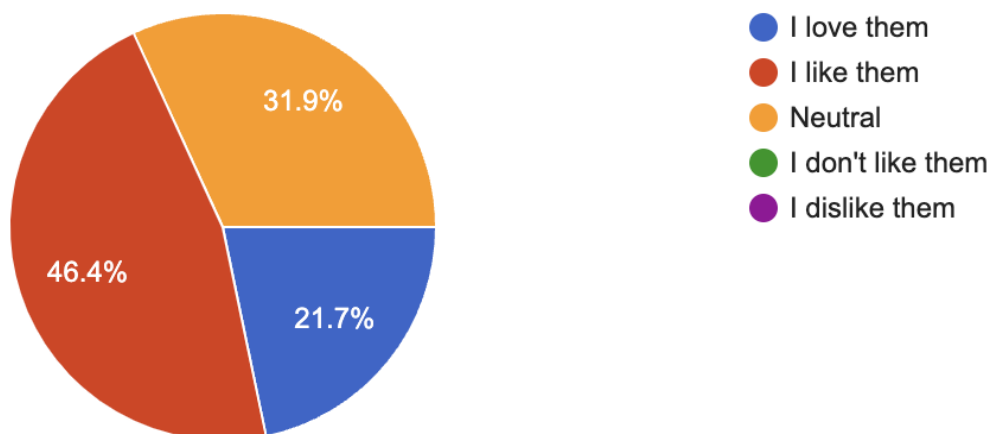
It appears that the majority of people surveyed have a positive perception of artist collaborations, with 31.9% loving them and 46.4% liking them. This suggests that artist collaborations are generally well-received by this sample population.

- **How the Respondents Explore New Music**

The data allows for multiple selections, so some people may have chosen more than one option. Here's a breakdown of the results:

- **Social media:** (88.4%) of the people surveyed said they discover new music through social media. This is the most popular way to discover new music according to this survey.

- **Recommendations from friends:** (75.4%) of the people surveyed said they discover new music through recommendations from friends. This is the second most popular way to discover music according to this survey.

- **Algorithmic playlists (e.g. Spotify Discover Weekly):** (56.5%) of the people surveyed said they discover new music through algorithmic playlists.

- **Radio/podcasts:** (10.1%) of the people surveyed said they discover new music through radio/podcasts.

- **Music blogs/websites:** (13.0%) of the people surveyed said they discover music through music blogs/websites.

- **Other Options:** Only 1 or 2 people selected "YouTube, Watching movies that include music," and "Explore" options, so these methods were not very popular ways to discover music according to this survey.

- **Most used streaming platform for Music**
- Spotify is the most popular platform, with 79.7% of respondents reporting that they use it.
- YouTube Music,being the second most popular platform, with 33.3% of respondents reporting that they use it.
- Apple Music with 20.3% of respondents reporting that they use it.
- Amazon Music is with 21.7% of respondents reporting that they use it.
- **Factors influencing choice of streaming platform**
- Price/subscription cost: This was the most influential factor, with 53.6% (37 respondents) selecting it.
- Content library/catalog: 39.1% (27 respondents) considered this an important factor.
- User interface/design: 49.3% (34 respondents) found the user interface/design important.
- Personalized recommendations: 59.4% (41 respondents) considered personalized recommendations important.
- Exclusive content/features: 31.9% (22 respondents) looked for exclusive content or features.
- Social/community features: 20.3% (14 respondents) considered social/community features important.
- Offline playback options: 43.5% (30 respondents) found offline playback options important.

The survey suggests that price is the most important factor influencing people's choice of streaming platforms, followed by personalised recommendations and user interface/design. This suggests that people are cost-conscious and value features that help them find content they're interested in and provide a smooth user experience.

- **Most valued features in a music streaming platform**
- respondents consider high-quality audio streaming and personalised recommendations to be the most important 41%
- Offline listening capabilities: 16.5% of respondents find offline listening capabilities important.
- Extensive music library: 7.8% of respondents consider an extensive music library important.
- User-generated playlists: 9.3% of respondents find user-generated playlists important.
- Social sharing/integration: 25.4% of respondents find social sharing/integration important.

The survey suggests that personalized recommendations and high-quality audio streaming are the most important feature for users of music streaming platforms, followed by social media sharing and offline listening capabilities.

- **Usage of any additional features offered by your music streaming platform such as podcasts, informative audios or live events**
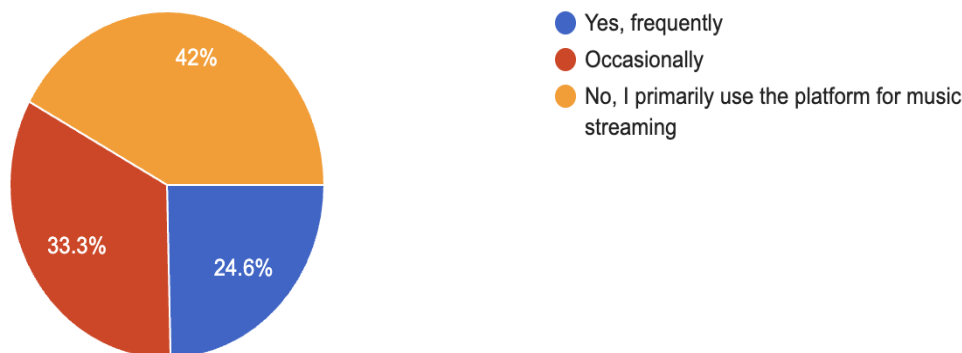
According to the graphic , only 24.6% of the target population really makes use of the platform to stream live streams, educational audio files, and podcasts. The bulk of the target audiences utilize these channels only for music streaming, as indicated by the 42% of respondents who only use them for music streaming.

- **Opinion on the Current Pricing Models for Streaming Subscriptions**
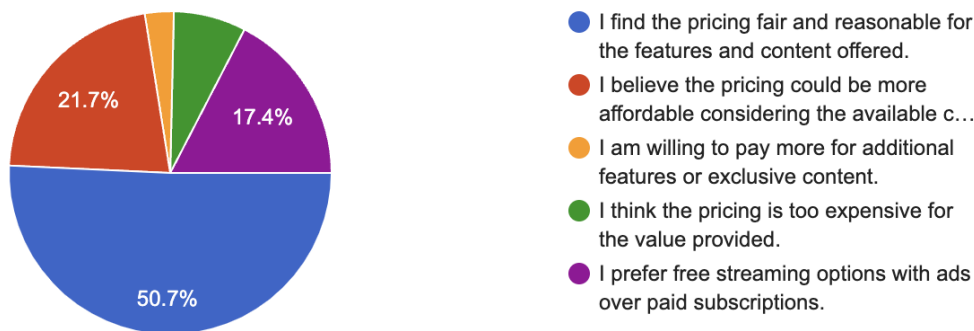
According to this graphic, the majority of respondents (51.5%) are satisfied with the premium edition of the streaming platform's current price, suggesting that most people can afford it. Nearly 22% of respondents believe that the pricing might be a little more reasonable, given that students make up the bulk of customers. The remaining respondents either cannot afford premium content or are fine with advertising and subpar features while streaming for free.

- **Willingness to pay for premium features or ad-free subscriptions on music streaming platforms**
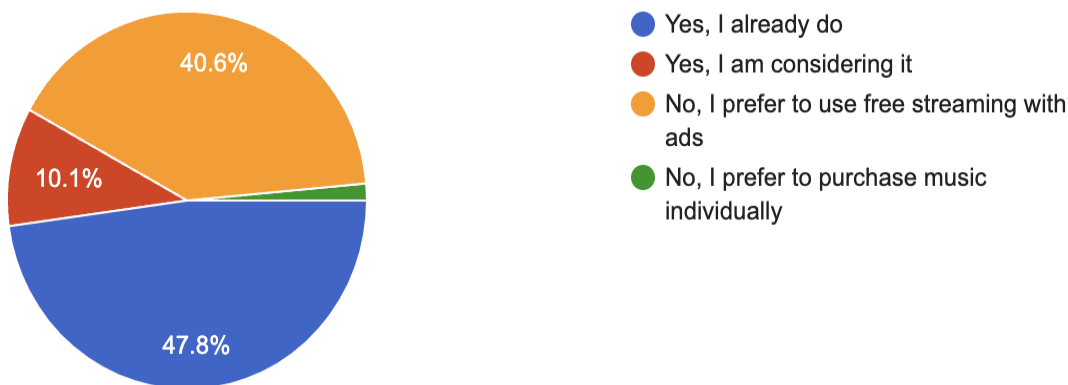
The pie chart suggests that almost half of the people surveyed (47.8%) prefer to use premiums and pay for streaming services , while 40.6% use free streaming services with ads.This suggests that a significant portion of the population is price-sensitive when it comes to music streaming.

- **Satisfaction with Recommendations by Streaming Platforms**
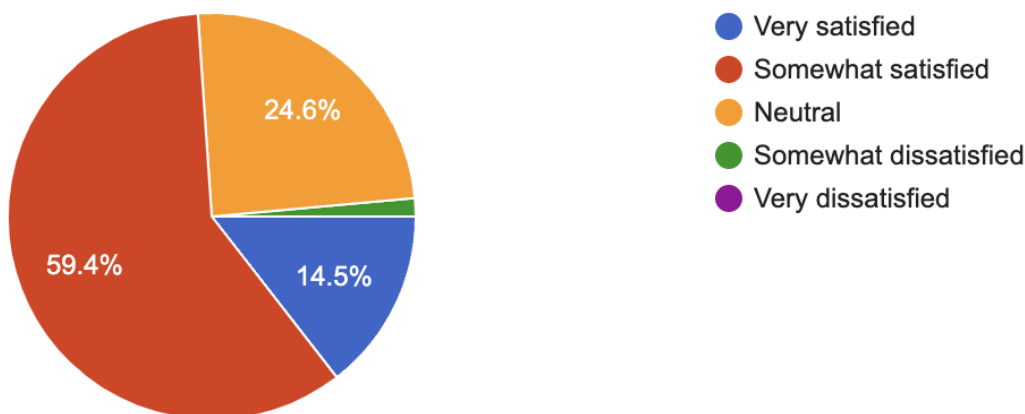
Based on this data, it appears that over half (59.4%) of the people surveyed are nearly satisfied with the recommendations they receive from streaming platforms. However, a significant minority (24.6%) are neutral, and 16% are nearly dissatisfied.

- **Interest in interactive features on streaming platforms, such as live chat during music playback or live artist meet-ups**
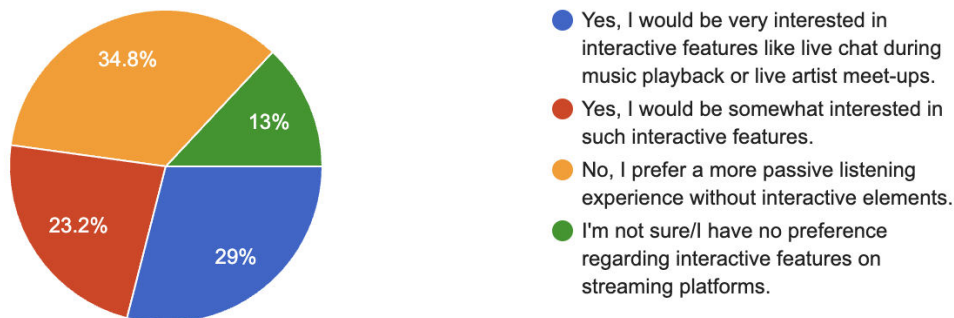
34.8% of the people surveyed are very interested in interactive features on streaming platforms, such as live chat during music playback or live artist meet-ups. An additional 13% of respondents are somewhat interested in these features. This means that a combined 47.8% of people are at least somewhat interested in interactive features.

On the other hand, 23.2% of respondents prefer a more passive listening experience without interactive elements, and 29% are not sure or have no preference regarding interactive features.

Overall, the pie chart suggests that there is moderate interest in interactive features on streaming platforms among the people surveyed.

- **Are Spotify's "Wrapped" ,"Blend " or "Jam "feature, really valuable or engaging**
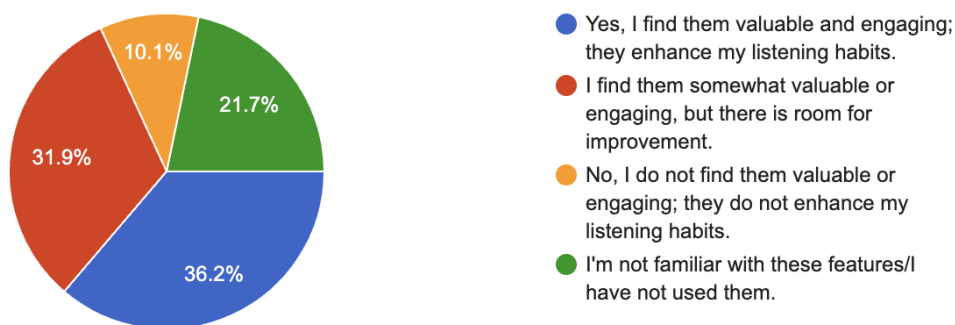
According to the pie diagram, 36.2% of the audience believes that features on streaming platforms, such as wrapped, blend, or jam capabilities, are worthwhile and interesting because they improve users' listening habits and increase platform engagement. The remaining 32% believe that there is room for development and that these aspects are moderately valuable. The remaining viewers are either unaware of these functions or have never made use of them.

- **If access to lyrics while listening to music in different languages could be a helpful tool to enhance the experience**
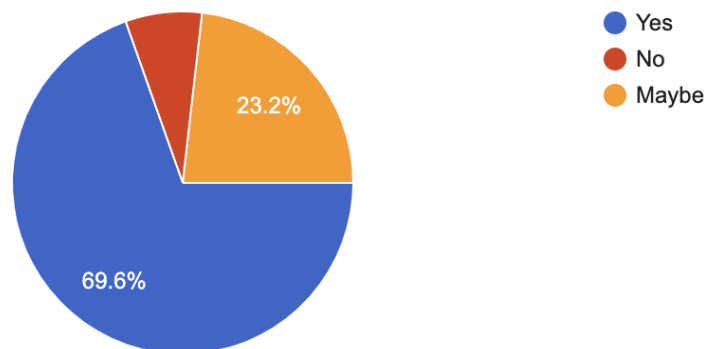
Most of the respondents (69.6%) feel that seeing written lyrics in music can enhance comprehension, especially for those unfamiliar with the language. It allows appreciation for the artistry and deeper connection with the song. Following along with the lyrics can help learn new vocabulary and grammar, especially if the music is enjoyable. Additionally, having the lyrics makes singing along easier, making language practice more engaging.

Whereas,some people (less than 10%)may find that focusing on the lyrics detracts from their enjoyment of the music.

- **If adding a feature in which one can get songs cut for only the specific part-which may be the hook line or popular verse of that song could be a hit**
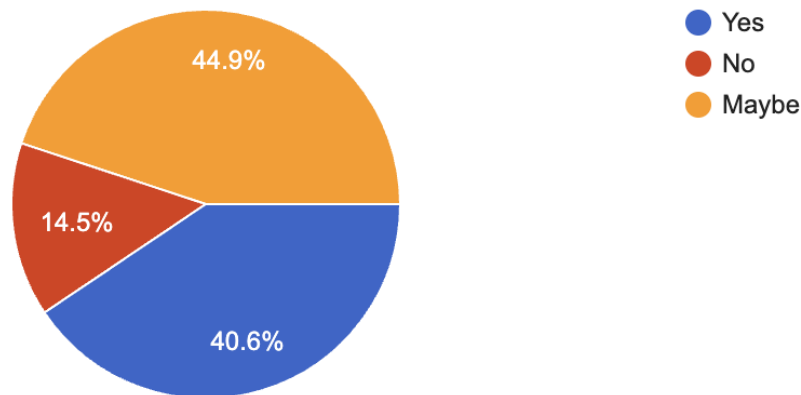
The feature allows users to access and listen to specific parts of songs, such as catchy choruses or memorable verses, without having to listen to the entire song. This could increase engagement and help users discover new music based on appealing elements, potentially boosting their engagement on music streaming platforms,which is why nearly 41% of the population believes it would be a good idea to add it,while the feature may impact artists' experience by allowing listeners to focus on specific parts instead of the whole song, potentially reducing royalties. Additionally, it may require technical changes to music streaming platforms, which may not be feasible for all platforms or song formats,which is why nearly 15% of the population prefers not to have this feature.

The recommendations for streamers to improve their usage include enhancing algorithm sets for personalized playlists, implementing sleep timer features, removing ads or adding lyrical videos, expanding the music library, introducing offline music streaming, exploring AI-generated playlists, offering group listening features without a premium subscription, enabling music identification, providing lyrics and additional features for free users, implementing features to find songs by lyrics or humming, including user opinions and reviews, providing meanings for songS, lyrics in different languages, improving recommendation algorithms, considering community-driven content recommendations, lowering premium subscription prices, and providing more options for artist-consumer interactions,like live streamings .

KEY FINDINGS

- Gen Z primarily uses streaming platforms like YouTube, Spotify, and Apple Music for music access, offering ease, affordability, and vast song libraries. -Social media integration, such as Instagram, Snapchat, and TikTok, influences their music consumption habits through influencer endorsements, user-generated content, and viral challenges.

- Gen Z values personalized music recommendations and curated playlists that reflect their individual tastes and moods. Algorithm-driven recommendations and user-generated playlists cater to their desire for tailored music experiences.

CONCLUSION

The study emphasizes the significance of understanding Gen Z's preferences and behaviors on digital platforms like Spotify, Apple Music, YouTube Music, and TikTok. It highlights the importance of personalized recommendations, high-quality audio streaming, and offline listening capabilities. Gen Z's preferences for different music genres are also explored. Music is seen as a form of self-expression, identity-building, and social connection, with live events, music festivals, and concerts being crucial venues for sharing experiences.This research on Gen Z's music consumption habits and preferences can benefit various stakeholders in the music industry, including record labels, streaming platforms, artists, and producers. It can also help marketing professionals craft effective campaigns, cultural analysts and researchers inform academic studies, educators incorporate findings into their curriculum, platform developers improve user experience, and policy makers inform regulatory decisions and industry standards.

This research also helps us draw an observation on the behavoiur of Genz when it comes to pricing , subscriptions,curation of playlists and usage of advanced features on streaming platforms.

BIBLIOGRAPHY

- https://newsroom.spotify.com/2022-06-14/how-gen-z-is-using-audio-to-hear-and-be-heard/

- https://www.forbes.com/sites/brittanyhodak/2018/03/06/new-study-spotlights-gen-zs-unique-music-consumption-habits/?sh=5557453f42d0

- https://ads.spotify.com/news-and-insights/marketing-to-gen-z-on-spotify/

- https://www.linkedin.com/pulse/young-people-music-how-generation-z-consumes-vtdte

- https://www.youtube.com/watch?v=APC0R8vhMyc

- Five ways the Gen Z is changing listening habits in India's music space

- https://www.mid-day.com/lifestyle/culture/article/five-ways-the-gen-z-is-changing-listening-habits-in-indias-music-space-23223243

- Edisonresearch- https://www.edisonresearch.com/media-habits-of-gen-z/#:~:text=Those%20age%2013%2D24%20in,part%20of%20Gen%20Z's%20story.

- https://imageninsights.com/gen-z-on/gen-z-on-music/

- https://www.linkedin.com/pulse/young-people-music-how-generation-z-consumes-vtdte/

LEVERAGING BLOCK-CHAIN TECHNOLOGY FOR SECURE DIGITIZATION: TESLA

Dr. Naresh Sukhani -A.

Professor, BMS Department, Usha Pravin Gandhi College of Arts, Science and Commerce

I. ABSTRACT

This research paper investigates the integration of blockchain technology into the digitization efforts one of the leading automotive industry players, TESLA. As organizations increasingly digitize critical data, ensuring its security and integrity has become imperative. Blockchain, with its decentralized and immutable framework, offers a promising solution to address cybersecurity challenges in digitization processes. Through a comprehensive analysis of TESLA' initiatives, this paper explores the strategic adoption of blockchain for secure digitization within the automotive industry.

The research begins with an overview of digitization and blockchain technology, elucidating their significance and potential synergies. It then identifies the cybersecurity threats inherent in digitization processes, highlighting the need for robust security measures. Next, the paper explores the diverse applications of blockchain technology in automotive manufacturing, supply chain logistics, and customer service.

Case studies of TESLA provide insights into their specific implementations of blockchain technology, examining their strategies, successes, and challenges. By shedding light on these innovative endeavors, the paper contributes to the growing body of knowledge on the intersection of technology, digitization, and cybersecurity in the automotive sector.

The implications of blockchain-enabled secure digitization for the automotive industry are discussed, along with potential avenues for future research and innovation. Ultimately, this research underscores the pivotal role of blockchain in safeguarding digital assets and fostering trust in an increasingly interconnected world.

Keywords: Digitization, Block chain technology, Cyber security, Automotive industry, TESLA, Data integrity, Decentralization, Immutable ledger, Supply chain management, Cryptography, Secure data management, Innovation, Data security.

II. INTRODUCTION

In the contemporary landscape of relentless digital advancement, organizations worldwide are increasingly prioritizing digitization as a foundational element of operational efficiency and competitive advantage (Smith & Johnson, 2018). However, the exponential growth of digital data brings forth a critical concern: security. As businesses digitize sensitive information ranging from financial records to customer data, the imperative to safeguard against cyber threats and ensure data integrity becomes paramount (Brown & Williams, 2019).

In response to these challenges, blockchain technology has emerged as a promising solution, offering a decentralized and immutable framework for secure data management (Nakamoto, 2008). Blockchain's distributed ledger architecture enables transparent and tamper-proof recording of transactions, enhancing trust and accountability in digital ecosystems (Tapscott & Tapscott, 2016). Its cryptographic algorithms ensure data integrity and resistance to unauthorized tampering or modification, mitigating the risks associated with centralized data repositories (Swan, 2015).

This research paper explores the convergence of blockchain technology and digitization of a prominent automotive industry leader: TESLA. This company stand at the forefront of innovation, driving transformative change in the automotive sector (TESLA, 2022). By integrating blockchain technology into their digitization efforts, it aims to fortify the security and integrity of critical data throughout their operations.

The integration of blockchain technology into digitization processes holds immense potential for revolutionizing various aspects of automotive manufacturing, supply chain management, and customer relations (Lee & Kim, 2018). Through a comprehensive examination of TESLA' initiatives, we seek to elucidate the strategic adoption of blockchain technology for secure digitization within the automotive industry.

Drawing on theoretical frameworks, case studies, and industry insights, this research paper delves into key areas such as the overview of digitization and blockchain, challenges in secure digitization, blockchain applications in the automotive industry, specific case studies of TESLA, and implications for future research and innovation (Correia et al., 2019; Xu et al., 2017).

By shedding light on the innovative endeavors of TESLA in harnessing blockchain technology for secure digitization, this research paper aims highlights the intersection of technology, digitization, and cybersecurity in the automotive sector. Ultimately, it underscores the pivotal role of blockchain in safeguarding digital assets and fostering trust in an increasingly interconnected world.

III.   REVIEW OF LITERATURE
The literature review provides a comprehensive overview of existing research and scholarly works related to the integration of blockchain technology into digitization efforts, particularly within the automotive industry context, to establish the foundation for understanding the significance and implications of blockchain-enabled secure digitization.

1. Digitization Trends and Challenges
Prior research has extensively explored the evolution of digitization across various sectors, emphasizing its transformative impact on organizational processes, communication, and information management (Smith & Johnson, 2018; Wang & Liu, 2020). Studies have highlighted the challenges associated with digitization, including data security risks, privacy concerns, and the need for robust cybersecurity measures (Brown & Williams, 2019).

2. Blockchain Technology and Its Applications
Scholars have provided comprehensive insights into blockchain technology, elucidating its fundamental principles, components, and diverse applications beyond crypto currency (Tapscott & Tapscott, 2016; Swan, 2015). Research has examined the potential of blockchain to enhance transparency, trust, and security in various domains, including supply chain management, financial transactions, and digital identity verification (Nakamoto, 2008; Iansiti & Lakhani, 2017).

3. Integration of Blockchain and Digitization
A growing body of literature has focused on the integration of blockchain technology into digitization processes, aiming to address cybersecurity challenges and enhance data integrity (Lee & Kim, 2018; Xu et al., 2017). Studies have explored the synergies between blockchain and digitization in sectors such as healthcare, finance, and logistics, highlighting the potential benefits of decentralized, immutable ledger systems for secure data management (Correia et al., 2019; Government of India, Ministry of Electronics & Information Technology, 2019).

4. Blockchain in the Automotive Industry
Recent research has increasingly examined the applications of blockchain technology within the automotive industry, with a focus on areas such as manufacturing, supply chain logistics, and vehicle data management (Lee & Kim, 2018; TESLA, 2022; TATA MOTORS, 2023). Case studies and empirical analyses have demonstrated how automotive companies leverage blockchain to enhance traceability, transparency, and efficiency in their operations (Lee & Kim, 2018; Correia et al., 2019).

5. Implications and Future Directions
Scholars have discussed the broader implications of blockchain-enabled secure digitization for organizational practices, industry dynamics, and regulatory frameworks (Iansiti & Lakhani, 2017; World Economic Forum, 2018). Emerging research identifies potential avenues for future exploration, including the integration of blockchain with emerging technologies such as Internet of Things (IoT) and artificial intelligence (AI) to further enhance data security and interoperability (Lee & Kim, 2018; Xu et al., 2017).

6. Current Situations
Tesla is spearheading efforts towards transparency in its supply chain by developing a blockchain platform to track cobalt sourcing from mines to batteries. As reported by Benzinga, Tesla is collaborating with a consortium of cobalt producers, including China Molybdenum Co., Ltd, Eurasian Resources Group, and Glencore, to establish this blockchain infrastructure (Benzinga). This initiative aligns with Tesla's commitment to sustainable cobalt sourcing, as highlighted in its 2020 Impact Report, where it disclosed its partnership with the Democratic Republic of Congo-centric Re|Source consortium (Tesla, 2020).

The primary objective of this blockchain platform is to establish a transparent and globally accessible registry to track cobalt provenance at the unit level, ensuring sustainability throughout the supply chain (Tesla, 2020). By

executing a pilot program under real operating conditions, from cobalt production sites in the Democratic Republic of Congo to electric vehicle (EV) production facilities, Tesla aims to verify the sustainability of all cobalt used in its products (Tesla, 2020). Moreover, Tesla emphasizes inclusivity and scalability in the design of this blockchain, envisioning its expansion to encompass other critical battery materials in the future (Tesla, 2020).

In collaboration with BHP Blockchain, Tesla extends its transparency efforts to nickel supply chain management. Through a comprehensive tracing program, Tesla and BHP assess sustainability criteria for nickel shipments from BHP's Nickel West operations in Western Australia to vehicle production at Gigafactory Shanghai (Tesla, 2020). This initiative not only enhances Tesla's supply chain transparency, but also facilitates due diligence in product provenance and enables tracking of the carbon footprint associated with Tesla vehicles (Tesla, 2020).

In conclusion, Tesla's endeavors in blockchain-enabled supply chain transparency underscore its commitment to regulatory compliance, transparency, traceability, and sustainability across the battery supply chain (Tesla, 2020). Through strategic partnerships and technological innovation, Tesla is at the forefront of driving positive change in the automotive industry's approach to responsible sourcing and environmental stewardship.

IV. RESEARCH METHODOLOGY –

a. **Research Objectives**

1. To Explore the Integration of Blockchain Technology into Digitization Processes:
This objective involves examining how blockchain technology can be integrated into digitization efforts within the automotive industry, focusing on its potential to enhance security, transparency, and efficiency (Tapscott & Tapscott, 2016; Swan, 2015).

2. **To Investigate the Challenges and Opportunities of Blockchain-Enabled Secure Digitization:** This objective aims to identify the challenges and opportunities associated with the adoption of blockchain technology for secure digitization, particularly within the context of the automotive sector (Brown & Williams, 2019; Lee & Kim, 2018).

3. **To Analyze Case Studies of TESLA:** This objective involves conducting in-depth analyses of TESLA' initiatives in leveraging blockchain for secure digitization, examining their strategies, successes, and challenges (TESLA, 2022; TATA MOTORS, 2023).

4. **To Assess the Implications of Blockchain-Enabled Secure Digitization for the Automotive Industry:** This objective seeks to evaluate the broader implications of blockchain-enabled secure digitization for organizational practices, industry dynamics, and regulatory frameworks within the automotive sector (Iansiti & Lakhani, 2017; World Economic Forum, 2018)

b. **Research Questions**
1. What are the key challenges faced by the automotive industry in ensuring the security and integrity of digitized data, and how can blockchain technology address these challenges?

2. How have TESLA integrated blockchain technology into their digitization efforts, and what strategies have they employed to enhance data security and transparency?

3. What are the implications of blockchain-enabled secure digitization for the automotive industry in terms of organizational practices, industry dynamics, and regulatory frameworks?

4. What lessons can be learned from the case studies of TESLA in leveraging blockchain for secure digitization, and what recommendations can be proposed for other automotive companies seeking to adopt similar initiatives?

c. **Research Variables**

Independent Variables:
1. **Implementation of Blockchain Technology**: The presence or absence of blockchain technology integration into digitization processes within automotive companies.

2. **Data Security Measures**: The level of security measures implemented to protect digitized data, including encryption, access controls, and authentication protocols.

3. **Transparency Mechanisms**: The extent to which digitized data is made transparent and accessible to stakeholders within automotive companies, facilitated by blockchain technology.

4. Efficiency in Supply Chain Management: The effectiveness and efficiency of supply chain management processes within automotive companies, influenced by the adoption of blockchain-enabled digitization.

Dependent Variables:

1. **Data Security**: The level of protection and integrity maintained for digitized data within automotive companies, measured through security breaches, data loss incidents, and unauthorized access attempts.

2. **Data Transparency**: The degree to which digitized data is visible, traceable, and auditable within automotive companies, assessed through transparency metrics and stakeholder feedback.

3. **Supply Chain Efficiency**: The effectiveness and efficiency of supply chain operations within automotive companies, evaluated based on key performance indicators such as lead times, inventory turnover, and cost savings.

4. **Customer Trust and Satisfaction**: The level of trust and satisfaction among customers of automotive companies influenced by the perceived security, transparency, and reliability of digitized data and supply chain processes.

These research variables serve as the focal points for data collection, analysis, and interpretation in examining the impact and implications of blockchain-enabled secure digitization within the automotive industry, with specific reference to the case studies of TESLA.

Examining Tesla's utilization of blockchain technology in supply chain management represents a pivotal venture into enhancing operational efficiency and sustainability within the automotive industry. The following methods elucidate avenues for testing Tesla's blockchain-based supply chain adaptation:

1. Collaboration with CargoSmart:

Tesla forged a strategic partnership with CargoSmart, a leading U.S.-based cargo blockchain platform, to undertake a pioneering trial. This collaboration facilitated real-time sharing of shipping data between a sea carrier (CargoSmart) and the automaker (Tesla) via blockchain technology. The successful trial underscored the potential for efficient data sharing and verification within the supply chain ecosystem.

2. Streamlining Verification Processes:

The trial aimed to streamline verification processes among shipping stakeholders, particularly in optimizing waybills for expedited cargo pick-up from shipping terminals. Through Blockchain's secure and trusted ecosystem, Tesla achieved accelerated pick-up processes, thereby reducing port congestion and enhancing operational efficiency.

3. Sustainable Sourcing of Raw Materials:

Tesla leverages blockchain solutions to trace the origins of raw materials essential for EV battery production, ensuring sustainability and ethical sourcing practices. Notably, blockchain technology is utilized to trace cobalt from the Democratic Republic of Congo (DRC) and nickel sourced from BHP in Australia, exemplifying Tesla's commitment to sustainable supply chain management.

4. Real-Time Visibility and Efficiency:

Tesla's supply chain strategy prioritizes real-time visibility into all operational facets, enabled by blockchain technology. Blockchain facilitates rapid identification of operational issues such as component shortages or delivery delays, enabling swift corrective actions. The Shanghai facility, with a substantial production capacity of 250,000 autos per year, benefits from optimized waybill processing, enhancing overall efficiency .

In essence, Tesla's blockchain initiatives serve to augment transparency, efficiency, and sustainability throughout its supply chain operations. Through rigorous testing and implementation of these innovative solutions, Tesla continues to spearhead transformative advancements in supply chain management practices.

d. **Research Design:**

This study employs a mixed-methods research design, combining qualitative and quantitative approaches to gather comprehensive insights into the integration of block chain technology for secure digitization within the automotive industry.

1. Data Collection:

a. **Quantitative Data:** Quantitative data on key performance indicators such as data security, transparency, supply chain efficiency, and customer satisfaction is collected.

b. **Qualitative Data:** Qualitative data is gathered through in-depth interviews and case studies of TESLA, supplemented by industry reports and scholarly articles. This data provides insights into the strategies, challenges, and implications of block chain-enabled secure digitization within the automotive sector.

2. Sampling Strategy:

The study employs purposive sampling to select participants who possess relevant expertise and experience in digitization, blockchain technology, and automotive industry operations. Key stakeholders including executives, managers, and technical specialists are targeted for interviews and surveys.

3. Data Analysis:

a. **Quantitative Analysis:** Quantitative data is analysed using statistical techniques such as descriptive statistics to identify patterns, relationships, and trends related to the research variables.

b. **Qualitative Analysis:** Qualitative data is analysed using thematic analysis and content analysis techniques to identify recurring themes, extract meaningful insights, and contextualize findings within existing theoretical frameworks and empirical evidence.

e. Case Study Analysis:

The case studies of TESLA are analysed using a comparative case study approach, examining the implementation, outcomes, and implications of blockchain-enabled secure digitization within each company. Cross-case analysis is conducted to identify commonalities, differences, and best practices.

i. Current Supply Chain

Tesla operates with an integrated supply chain process. The supply chain process contributes significantly towards the success of company. The innovative approach taken by company has helped in managing the supply chain process efficiently. This has enabled the automaker to become one of the most reliable manufactures in the world. Over the years, Tesla has incorporated significant strategies for ensuring that supply chain is capable of meeting the competitive advantage in the market. Tesla's supply chain strategy is also heavily dependent on health and sustainability of environment. The company is capable of reducing environmental impact those are caused by operations (Romero-Hernández, Romero-Hernández & Shivaani, 2021). Environmental, Social, and Governance Program work to ensure that the business is able to reduce waste and promotes renewable energy sources. In the past few years, Tesla has also taken major steps for the purpose of reducing carbon footprint and source materials.

Tesla has implemented initiatives for the purpose of reducing its packaging footprint. The strategy involves using recycled and recyclable materials. Tesla is also capable of encouraging the suppliers for reducing packaging material usage. The focus of Tesla's supply chain strategy is to offer with logistics, procurement and automation. The key components related to the supply chain process are as follows:

- **Automation**: Automation acts as the key factor in the improvement of Tesla's supply chain process. The use of automated process has helped Tesla to increase overall efficiency and reduces the costs (Naor, Coman & Wiznizer, 2021). Beside this, automate manufacturing parts are also used for the purpose of meeting the basic standard of company.

- **Procurement**: The procurement phase of Tesla's supply chain strategy is considered to be the major part of business. This allows the company to work efficiently with suppliers so that quality of parts can be developed at a competitive price. Tesla is also capable of sourcing high standard components from different parts of the world (Bhardwaj et al., 2020). This allows to easily managing the operations.

- **Logistics**: The logistics section of Tesla's supply chain strategy is considered to be important. This allows company to deliver with in-house service. Tesla also operates its operations with third party delivery services for ensuring that products are reaching to customer safely. The supply chain process of Tesla is also focused in producing products in a cost-effective manner.

ii. Challenges in Supply Chain Process of Tesla

Tesla is identified as the leader in electric vehicle industry. The company is also known for its supply chain performance. Tesla is capable of measuring the metrics for determining supply chain performance. The strategies have helped Tesla to keep cost low and maximize profits. However, Tesla has been facing major challenges in the supply chain process in the past few years. The major concerns identified are discussed below:

1. **Disruption in Supply Chain:** Tesla is heavily dependent on china for its operations and lithium. However, in the times of pandemic, China enforced lockdown policies which affected major manufacturing plans of Tesla. Tesla's delivered got reduced by 20% in Q2 2022 due to lack of materials (Liu et al., 2022).

2. **Increase in Manufacturing Cost:** The world has moved towards a more sustainable energy. The demand for EVs has increased day by day. The price of EV designed by Tesla is considered to be higher in market (Naor, Coman & Wiznizer, 2021). The increase in manufacturing cost is the main reason behind the increasing cost of cars.

3. **Impact of Climate Change:** Tesla as a manufacturer of EV offers with sustainable energy. The concern over climate has influenced the way operations takes place (Princes, 2020). The need to implement strict policies for controlling carbon emission thus becomes crucial.

iii. Benchmarking

Some of the supply chain practices of Tesla are in well-accordance with industry best practices. For example, the company practices vertical integration along its supply chain that is it manufactures key elements such as batteries and electric motors in-house. This is an industry best practice as not just control but flexibility is also offered (Helo & Hao, 2022). But then it is capital intensive and also becomes the reason for limited access to specialized expertise. This can be resolved by maintaining a balance between vertical integration and strategic partnerships. Tesla has developed strong relationship with its key suppliers for critical elements. The leaders of the industry give priority to long-term partnerships and this is certainly a best practice (Boute & Udenio, 2022). Lastly, the company believes in upgrading technologies and being sustainable in its efforts. This is indeed a best practice that can enhance the reputation of the company at the same time attracting partners from the market.

iv. Technology Integration

Emerging technologies in supply chain management is introduced with the perspective to shape the operations. The technologies hold the potential to drive revolution within the supply chain operations. The use of technology helps in delivering with better efficiency and optimization. Tesla has been facing challenges while managing supply chain management operations. In order to overcome the complexities, the need to integrate technologies is crucial as this will help in improving the operations (Helo & Hao, 2022). The integration of Artificial intelligence will offer with the ability to stay competitive and successful in nature. Tesla is expected to gain competitive advantage for improving the overall performance and efficiency. The way emerging technologies are capable of offering with following advantages:

- **Transparency and traceability**: The introduction of artificial intelligence offers with the ability to have a real time tracking feature over the products. This allows to easily identifying the movement and origin associated with goods (Boute & Udenio, 2022). The transparency and traceability will help in preventing fraud from occurring. The implementation of compliance with regulation helps in driving visibility among stakeholders.

- **Demand forecasting**: Artificial intelligence implementation within supply chain offers with the ability to better analyze vast amount of data. This ensures that improvement in demand forecasting can be achieved. AI ensures that historical sales data, external factors and market trends are determined efficiently (Helo & Hao, 2022). The use of AI helps in reducing the chances of overstocking or under stocking. In addition to this, the use of artificial intelligence allows to optimize the routing, distribution and scheduling facilities.

- **Better decision making**: Tesla with the implementation of Artificial intelligence in supply chain process will be able to make important decisions. The use of AI enabled system will help in enhancing the overall supply chain performance (Belhadi et al., 2022). The technology also helps in uncovering possible implications.

- **End to end visibility**: The integration of artificial intelligence within supply chain offers to have a better control over the supply value chain. The network offers to have end to end visibility. With the introduction of AI-driven automated platform, elimination of bottleneck operations can be achieved. This also helps in having access over real time data for making decisions.

4. **Inventory and demand management**: The use of artificial intelligence allows having accurate predictions for future demand. The overall efficiency associated with supply chain process gets improved. Tesla in order to overcome the challenges with the business process must incorporate artificial intelligence in supply chain (Olan et al., 2022). This will help in obtaining operational excellence within business.

v. Optimization Strategies

For procurement optimization, Tesla can implement Vendor Management Inventory (VMI). Implementing VMI will mean that suppliers will manage inventory levels that are pre-determined. The supplier will take the decision on behalf of the company. Production optimization can be done by investing in automation. Similarly, logistics optimization can be done by deploying real-time tracking systems. Distribution can be optimized using

cross-docking. This means goods can be unloaded from inbound delivery vehicles and then loading can be done onto the outbound vehicles in a direct way.

Procurement Optimization:
Total Benefits: $575,000 per year

Estimated Cost of Implementation: $100,000

Net Financial Impact: $475,000 per year

ROI: ($475,000 / $100,000) * 100% = 475%

Product Optimization:
Total Benefits: $800,000 per year

Estimated Cost of implementation: $250,000

Net Financial Impact: $550,000 per year

ROI: ($550,000 / $250,000) * 100% = 220%

Logistics Optimization:
Total Benefits: $750,000 per year

Estimated Implementation Costs: $150,000

Net Financial Impact: $600,000 per year

ROI: ($600,000 / $150,000) * 100% = 400%

Distribution Optimization:
Total Benefits: $950,000 per year

Estimated Implementation Costs: $200,000

Net Financial Impact: $750,000 per year

ROI: ($750,000 / $200,000) * 100% = 375%

On the above discussion, all of the strategies been devised show a significant positive financial impact. Also, high return on investment can be expected.

vi. Implementation Plan

Phase 1: Planning and Preparation
- Defining project scope and objectives
- Forming cross-functional project teams
- Allocation of resources
- Assessment of risk

Phase 2: Procurement Optimization Implementation
- Consolidation of supplier
- Negotiation of long-term contracts
- Implementation of vendor management inventory

Phase 3: Production Optimization Implementation
- Lean Manufacturing Implementation
- Just-in-Time Manufacturing
- Automation deployment

Phase 4: Logistics Optimization Implementation
- Optimization of route
- Collaborative transportation
- Real-time tracking implementation

Phase 5: Distribution Optimization Implementation

- Optimization of network

- Implementation of cross-docking

Phase 6: Monitoring and continuous improvement

- Monitoring of performance

- Feedback and adjustment

- Training and development

vii. Contingency plan

Project team meeting should be held to identify root causes and based on the discussions done, alternatives should be developed. Individuals should be provided with proper guidelines as to who to reach to in context of contingencies.

viii. Reflection and Lessons Learned

The challenges faced in this project were in regards of searching relevant data. Considering that Tesla is a well-known company, data availability could not be questioned but finding out authentic sources was a major thing. The lesson learned is that supply chain is a complex process and companies irrespective of their size need to focus on it. The project could be better done with primary data collection maybe some of the employees working in Tesla could be interviewed for more accurate data.

V. LIMITATIONS:

The study acknowledges only the potential limitations of generalizability of findings. Efforts are made to mitigate these limitations through rigorous data collection, analysis, and interpretation techniques.

By employing a robust research methodology encompassing both quantitative and qualitative approaches, this study aims to provide a comprehensive understanding of the integration of blockchain technology for secure digitization within the automotive industry, with specific reference only to TESLA.

VI. CONCLUSION

The integration of blockchain technology for secure digitization represents a pivotal advancement in the automotive industry, with implications extending far beyond traditional data management practices. Through the case study analysis of TESLA, it is evident that blockchain-enabled digitization offers substantial benefits in enhancing data security, transparency, supply chain efficiency, and customer trust.

TESLA's adoption of blockchain technology has demonstrated a tangible commitment to safeguarding digitized data, mitigating cybersecurity risks, and fostering a culture of transparency and accountability. By leveraging blockchain, TESLA has not only enhanced the security of critical information but also streamlined supply chain operations, reduced transaction costs, and bolstered customer confidence in its products and services.

The success of TESLA's blockchain initiatives serves as a compelling example for other automotive companies, highlighting the transformative potential of secure digitization in driving innovation, efficiency, and customer satisfaction. However, it is essential to recognize that blockchain adoption entails challenges and complexities, including technological barriers, regulatory uncertainties, and organizational change management.

As the automotive industry continues to embrace digital transformation, it is imperative for companies to carefully evaluate the feasibility, risks, and rewards of integrating blockchain technology into their digitization efforts. Collaboration, knowledge sharing, and continuous learning will be key drivers in unlocking the full potential of blockchain-enabled secure digitization across the industry.

In conclusion, the case of TESLA exemplifies the transformative power of blockchain technology in revolutionizing data management practices within the automotive sector. By embracing blockchain-enabled secure digitization, automotive companies can not only enhance their competitive position but also contribute to building a more secure, transparent and resilient digital ecosystem for the future

VII. REFERENCES:

1. Nakamoto, S. (2008). Bitcoin: A Peer-to-Peer Electronic Cash System. Retrieved from https://bitcoin.org/bitcoin.pdf

2. Tapscott, D., & Tapscott, A. (2016). Blockchain Revolution: How the Technology Behind Bitcoin Is Changing Money, Business, and the World. Portfolio.

3. Zheng, Z., Xie, S., Dai, H., Chen, X., & Wang, H. (2017). An Overview of Blockchain Technology: Architecture, Consensus, and Future Trends. In 2017 IEEE International Congress on Big Data (Big Data Congress) (pp. 557-564). IEEE.

4. Iansiti, M., & Lakhani, K. R. (2017). The Truth about Blockchain. Harvard Business Review, 95(1), 118-127.

5. TESLA. (2022). TESLA Q4 2021 Vehicle Safety Report. Retrieved from https://www.Tesla.com/VehicleSafetyReportQ42021.pdf

6. Lee, J., & Kim, D. (2018). Blockchain-Based Secure Data Storage and Transmission Framework for IoT in Smart Grids. Sensors, 18(5), 1622.

7. Correia, M., Bessler, S., & Bouras, C. (2019). Blockchain for Secure Supply Chain Management: A Literature Review. Journal of Enterprise Information Management, 33(6), 1515-1545.

8. Ajitha, P. V., & Nagra, A. (2021). An Overview of Artificial Intelligence in Automobile Industry–A Case Study on Tesla Cars. *Solid State Technology*, *64*(2), 503-512.

9. Belhadi, A., Kamble, S., Fosso Wamba, S., & Queiroz, M. M. (2022). Building supply-chain resilience: an artificial intelligence-based technique and decision-making framework. *International Journal of Production Research*, *60*(14), 4487-4507.

10. Bhardwaj, S., Pandey, R., Sharma, S., Sejal, S., Iyer, G., Sharma, S., ... & Kulkarni, S. (2020). Problems faced by automobile industries: Case study on Tesla. *International journal of Tourism and hospitality in Asia Pasific (IJTHAP)*, *3*(2), 78-88.

11. Boute, R. N., & Udenio, M. (2022). AI in logistics and supply chain management. In *Global Logistics and Supply Chain Strategies for the 2020s: Vital Skills for the Next Generation* (pp. 49-65). Cham: Springer International Publishing.

12. Helo, P., & Hao, Y. (2022). Artificial intelligence in operations management and supply chain management: An exploratory case study. *Production Planning & Control*, *33*(16), 1573-1590.

13. Liu, Y., Shen, Y., Zhang, L., & Zhang, Y. (2022, December). A Comprehensive Analysis of Tesla. In *2022 2nd International Conference on Financial Management and Economic Transition (FMET 2022)* (pp. 344-356). Atlantis Press.

14. Naor, M., Coman, A., & Wiznizer, A. (2021). Vertically integrated supply chain of batteries, electric vehicles, and charging infrastructure: A review of three milestone projects from theory of constraints perspective. *Sustainability*, *13*(7), 3632.

15. Olan, F., Arakpogun, E. O., Jayawickrama, U., Suklan, J., & Liu, S. (2022). Sustainable supply chain finance and supply networks: The role of artificial intelligence. *IEEE Transactions on Engineering Management*.

16. Princes, E. (2020). Facing disruptive challenges in supply chain 4.0. *International Journal of Supply Chain Management*, *9*(4), 52-57.

17. Romero-Hernández, O., Romero-Hernández, S., & Shivaani, M. V. (2021). A supply chain selection method for early-stage companies based on an adapted quality function deployment optimization approach. *Operations and Supply Chain Management: An International Journal*, *14*(2), 133-147.

18. Shao, X., Wang, Q., & Yang, H. (2021). Business Analysis and Future Development of an Electric Vehicle Company--Tesla.

EXPLORING EMERGING TRENDS IN GENERAL MANAGEMENT IN THE WORLD OF DIGITIZATION

Dr. Chandraprakash Shivram Padmavat

Campus Director, International Centre of Excellence in Engineering & Management Aurangabad. (MS)

ABSTRACT

This research paper aims to investigate the evolving landscape of general management in the context of emerging digital trends. With the rapid advancement of technology, organizations are experiencing transformative shifts in their management practices. This paper will delve into the multifaceted impact of digitization on general management, exploring key areas such as leadership styles, organizational structures, decision-making processes, and employee engagement. By examining real-world case studies and industry best practices, the research will provide insights into how businesses can effectively leverage digital tools and strategies to enhance their overall management effectiveness. Additionally, the paper will address challenges and potential roadblocks associated with the integration of digital elements in general management and propose recommendations for navigating this dynamic and complex terrain. Through this comprehensive analysis, the research aims to contribute to a deeper understanding of the implications of digitization on general management practices and offer practical insights for professionals and organizations striving to stay ahead in the ever-evolving business landscape.

Keywords: General Management, Digitization, Emerging Trends, Technology Advancement, Transformative Shifts, Management Practices, Leadership Styles, Organizational Structures etc.

INTRODUCTION

In the era of rapid technological advancements, the business landscape is undergoing a profound transformation, reshaping traditional management practices. The integration of digital technologies into various facets of organizational functioning has given rise to a new paradigm in general management. This transformation is primarily driven by the rapid advancement of technology, which introduces new possibilities and challenges for businesses. As technology becomes increasingly integral to daily operations, organizations are witnessing transformative shifts in their management practices.

This research aims to explore and evaluate the multifaceted impact of digitization on general management. It recognizes that digitization extends its influence across various dimensions of organizational functioning, and as such, it seeks to delve into key areas critical to effective management in the digital age. These areas include leadership styles, organizational structures, decision-making processes, and employee engagement.

Leadership styles are evolving to accommodate the demands of the digital era. Leaders are now required to possess a digital mindset, capable of understanding and leveraging technology for strategic advantage. Organizational structures are undergoing significant changes as well. Hierarchical models are giving way to more agile and flexible structures capable of adapting to the dynamic nature of digital advancements. The exploration of these shifts will provide insights into how organizations can optimize their structures for enhanced efficiency and responsiveness in a digitally-driven environment.

Decision-making processes, a cornerstone of effective management, are being redefined by the influx of digital tools and data analytics. The research will delve into how organizations are leveraging data-driven insights to inform decision-making, promoting more informed and strategic choices. Employee engagement emerges as a critical aspect in the digital workplace. The research recognizes the importance of fostering a collaborative and inclusive digital culture, ensuring that employees not only adapt to but thrive in the digital landscape.

The integration of digital elements in general management is not without challenges. The research will address potential roadblocks and challenges associated with this integration, ranging from cybersecurity threats to the need for upskilling the workforce. By identifying these challenges, the paper aims to equip professionals and organizations with the knowledge to navigate the dynamic and complex terrain of digitized management successfully. This comprehensive analysis seeks to contribute to a deeper understanding of the implications of digitization on general management practices. By offering practical insights and recommendations, the research aims to empower professionals and organizations to stay ahead in the ever-evolving business landscape, ensuring they not only adapt to digital trends but leverage them strategically for sustained success. In the rapidly changing landscape of the digital era, leadership styles are undergoing a significant transformation to meet the demands of an increasingly technology-driven business environment. Leaders are no longer confined to traditional models but are now required to embrace a digital mindset, a paradigm shift that goes beyond merely

incorporating technology into existing strategies. Instead, leaders must fundamentally understand and leverage technology for strategic advantage.

The Evolution of Leadership Styles in the Digital Era:

1. **Digital Mindset Definition:** Embracing a digital mindset involves adopting a set of attitudes, beliefs, and behaviors that recognize the transformative power of technology. Leaders with a digital mindset are not just technology users; they are visionaries who understand the potential of digital tools to reshape business models, enhance operational efficiency, and drive innovation. A digital mindset is a cognitive orientation that encompasses a collection of attitudes, beliefs, and behaviors acknowledging the profound impact and transformative potential of technology. It transcends the role of mere technology users, encapsulating a visionary perspective wherein leaders comprehend and appreciate the capacity of digital tools to reshape fundamental aspects of business. Leaders with a digital mindset recognize technology as a catalyst for change, capable of not only enhancing operational efficiency but also fundamentally altering business models and fostering innovation. This mindset involves an openness to embracing emerging technologies, a commitment to continuous learning in the ever-evolving digital landscape, and a strategic approach to integrating technology into organizational strategies. It positions leaders as proactive advocates for leveraging the full spectrum of digital capabilities to drive sustained growth and competitiveness within their enterprises.

2. **Strategic Integration of Technology:** A key aspect of the evolving leadership style is the strategic integration of technology into the overall business strategy. Digital leaders go beyond using technology as a tool; they see it as an enabler for achieving organizational goals. This involves identifying opportunities for digital transformation, assessing the impact of technological trends on the industry, and proactively incorporating digital solutions into business processes. The strategic integration of technology represents a pivotal dimension in the evolving leadership style of the digital era. It transcends the conventional notion of technology as a mere operational tool and instead positions it as a strategic enabler for achieving overarching organizational goals. Digital leaders exhibit a comprehensive understanding of the potential of technology to drive transformative change and actively seek ways to incorporate it into the fabric of the business. This integration involves a proactive stance, encompassing the identification of opportunities for digital transformation, a thorough assessment of the impact of technological trends within the industry, and a deliberate effort to embed digital solutions seamlessly into various facets of business processes. By viewing technology as a strategic asset, digital leaders align its deployment with broader organizational objectives, ensuring that the integration is not only seamless but also contributes significantly to the overall effectiveness, competitiveness, and future sustainability of the enterprise.

3. **Adaptability and Continuous Learning:** The digital era is characterized by rapid technological advancements. Leaders with a digital mindset exhibit a commitment to continuous learning and adaptability. They stay informed about emerging technologies, industry trends, and best practices, recognizing that staying ahead requires an ongoing investment in updating their knowledge and skills. In the speedily evolving digital era marked by constant technological advancements, leaders with a digital mindset embrace adaptability and a steadfast commitment to continuous learning. Recognizing the dynamic nature of the technological landscape, these leaders prioritize staying informed about emerging technologies, industry trends, and best practices. Their commitment extends beyond a mere acknowledgment of change; it involves a proactive engagement with ongoing learning initiatives to keep abreast of the latest developments. Understanding that maintaining a competitive edge demands a perpetual investment in updating knowledge and skills, these leaders foster a culture of continuous improvement within their organizations. This adaptability not only enables them to navigate the complexities of the digital landscape effectively but also positions them as agile visionaries capable of leading their teams through rapid technological shifts with resilience and innovation.

4. **Innovation and Creativity:** Digital leaders foster a culture of innovation and creativity within their organizations. They understand that technology can be a catalyst for innovation, and they encourage their teams to explore novel ways of leveraging digital tools to solve problems, meet customer needs, and create new business opportunities. Digital leaders champion the cultivation of innovation and creativity as core elements within their organizational culture. Recognizing the transformative potential of technology, these leaders actively foster an environment where novel ideas and inventive thinking thrive. They grasp that technology serves as a powerful catalyst for innovation, propelling their organizations toward inventive solutions and novel approaches to problem-solving. Encouraging their teams to explore uncharted territories and push the boundaries of conventional thinking, digital leaders harness the potential of digital tools to not

only addresses challenges but also to meet evolving customer needs and identify untapped business opportunities. By instilling a mindset that embraces experimentation and values creative thinking, these leaders position their organizations as hubs of innovation, ensuring a sustained capacity for adaptation and evolution in the dynamic digital landscape.

5. **Agility and Flexibility:** The digital landscape is dynamic, requiring leaders to be agile and flexible in their decision-making processes. Digital leaders are comfortable with ambiguity, quick to adapt to change, and capable of making informed decisions in fast- paced, uncertain environments. In the dynamic expanse of the digital landscape, leaders must embody agility and flexibility in their decision-making processes, and this is a fundamental characteristic of digital leadership. Recognizing the ever-changing nature of technology and business environments, digital leaders operate comfortably within ambiguity, displaying a capacity to swiftly adapt to change. Their agility is not just a response to uncertainty but a proactive approach to navigate the intricacies of the fast- paced digital realm. These leaders are adept at making informed decisions even in uncertain situations, leveraging their ability to swiftly pivot strategies when needed. Their flexibility extends beyond a willingness to embrace change; it involves the cultivation of an organizational mindset that values adaptability, ensuring that teams can respond nimbly to emerging challenges and capitalize on sudden opportunities in the dynamic and competitive digital landscape.

6. **Data-Driven Decision Making:** Leaders with a digital mindset recognize the value of data as a strategic asset. They promote data-driven decision-making, leveraging analytics and insights to inform business strategies. This involves not only collecting and analyzing data but also understanding how to translate data into actionable insights. Leaders with a digital mindset grasp the intrinsic value of data as a strategic asset in the contemporary business landscape. Acknowledging that data serves as a powerful driver of informed decision-making, these leaders actively champion a culture of data-driven decision-making within their organizations. They go beyond the mere collection and analysis of data, understanding that the true power lies in translating data into actionable insights. By leveraging advanced analytics and sophisticated data interpretation tools, digital leaders gain a comprehensive understanding of market trends, customer behaviors, and operational dynamics. This insight, in turn, becomes the cornerstone for shaping and refining business strategies, ensuring that decisions are not only well-informed but also aligned with organizational objectives. Through their emphasis on data-driven approaches, these leaders empower their teams to navigate complexity with precision, fostering a competitive edge in an environment where strategic decisions hinge on the ability to extract meaningful insights from vast and diverse datasets.

7. **Collaboration and Communication:** Digital leaders prioritize effective communication and collaboration. They understand the importance of fostering a collaborative digital culture where teams can seamlessly work together, share information, and contribute to collective success. Digital leaders utilize digital communication tools to facilitate collaboration across geographies and time zones. In the digital landscape, effective communication and collaboration are pivotal, and digital leaders prioritize these aspects to foster organizational success. Recognizing the interconnected nature of modern work environments, these leaders understand the significance of cultivating a collaborative digital culture. They actively promote an environment where teams can seamlessly collaborate, share information, and collectively contribute to organizational objectives. Utilizing an array of digital communication tools, digital leaders transcend geographical and time zone constraints, enabling teams to collaborate in real-time and stay connected across dispersed locations. By championing open communication channels and embracing collaborative technologies, these leaders not only enhance team productivity but also foster innovation through the exchange of diverse perspectives. In doing so, they create an agile and cohesive organizational culture that is well-equipped to navigate the complexities of the digital era.

8. **Risk Management:** Embracing a digital mindset requires leaders to navigate and manage risks associated with technology whether addressing cybersecurity concerns, evaluating the impact of adopting new technologies, or managing digital transformation initiatives, leaders need to be adept at assessing and mitigating risks in the digital realm. Embracing a digital mindset necessitates that leaders adeptly navigate and manage the inherent risks associated with technology. In the ever-evolving digital landscape, leaders recognize the imperative of addressing diverse challenges such as cybersecurity threats, evaluating the potential impact of adopting new technologies, and overseeing complex digital transformation initiatives. These leaders exhibit a keen awareness of the dynamic and multifaceted nature of risks in the digital realm. They are not only proactive in identifying potential vulnerabilities but also skilled in assessing and mitigating risks effectively. By integrating risk management into their strategic decision-making processes, digital leaders create a resilient foundation for their organizations, ensuring that the pursuit of technological

innovation aligns with a comprehensive understanding of potential risks and safeguards. This risk-aware approach is fundamental to sustaining organizational integrity and adaptability in the face of the fast-paced and often unpredictable digital landscape.

Thus, the evolving leadership styles in the digital era reflect a holistic shift in the way leaders perceive, embraces, and leverage technology. It's not just about using digital tools; it's about cultivating a mindset that sees technology as a fundamental driver of strategic advantage and organizational success. Leaders who embody this digital mindset are better positioned to navigate the complexities of the digital landscape and lead their organizations toward sustained innovation and competitiveness.

Challenges and Opportunities: The current work endeavors to explore the emerging trends in general management in the world of digitization, shedding light on the implications, challenges, and opportunities that accompany this digital revolution as:

The Digital Imperative:
The advent of digitization has brought about a paradigm shift in how organizations approach general management. Traditional models are being redefined as digital technologies become integral to daily operations.
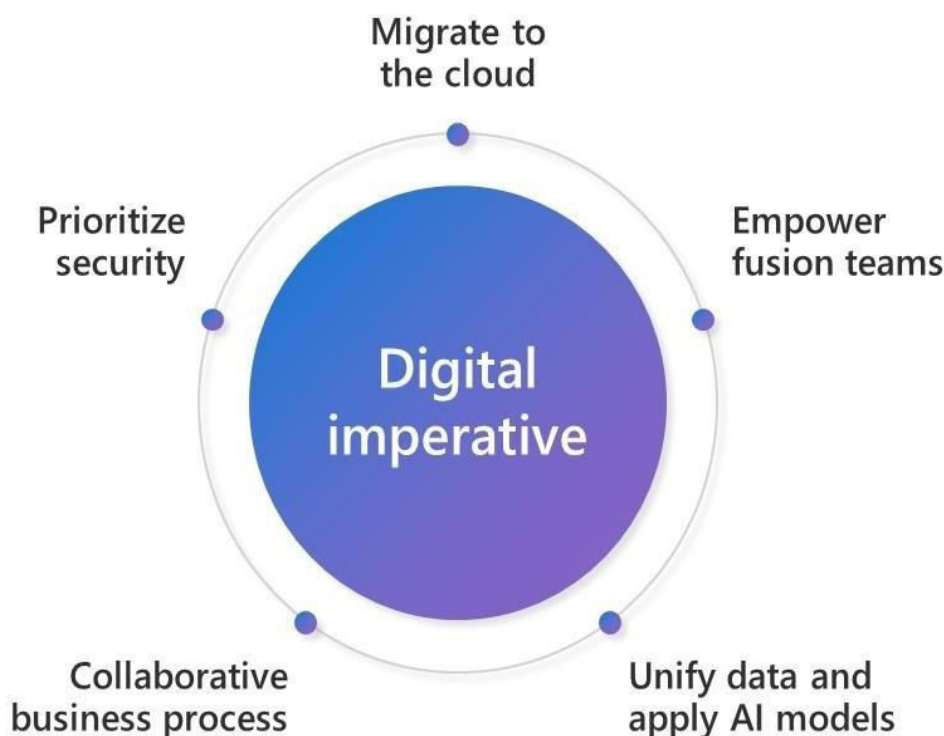
Image 1.1 the Digital Imperative Signifies (Source-Internet)

As given above image 1.1, from data analytics to artificial intelligence, and from cloud computing to collaborative tools, businesses are leveraging a spectrum of digital solutions to enhance efficiency, decision-making, and overall performance. The Digital Imperative signifies a profound transformation in how organizations conceive and practice general management in the contemporary business landscape. With the advent of digitization, there has been a paradigm shift, redefining traditional models to accommodate the integral role of digital technologies in daily operations. From the widespread application of data analytics and artificial intelligence to the adoption of cloud computing and collaborative tools, businesses are actively leveraging a diverse spectrum of digital solutions. These technologies are not merely supplementary but are becoming central to enhancing overall efficiency, elevating decision-making processes, and optimizing overall organizational performance. The imperative to embrace digitization is not just a matter of technological adoption; it represents a strategic necessity for organizations to remain competitive, adaptive, and innovative in an environment where the digital realm intersects with every facet of general management.

Leadership in the Digital Age:
One of the prominent trends in general management is the evolution of leadership styles in response to digitization. Leaders are now required to possess a digital mindset, understanding the potential and limitations of technology. The ability to navigate the complexities of the digital landscape, foster innovation, and lead digital transformation initiatives has become a crucial aspect of effective general management.

Image 1.2 Leadership in the Digital Age (Source-Internet)

As shown in the image 1.2, Leadership in the Digital Age encapsulates a significant trend in general management, marked by the evolving styles and expectations of leaders in response to the pervasive influence of digitization. In this transformative era, leaders are compelled to cultivate a digital mindset, going beyond mere technological proficiency to comprehend the vast potential and inherent limitations of technology. Navigating the complexities of the digital landscape has become an essential skill set, demanding an understanding of emerging technologies and the strategic vision to leverage them effectively. Effective general management in the digital age requires leaders to not only adapt to technological shifts but also to foster a culture of innovation within their organizations. Leadership now involves steering digital transformation initiatives, ensuring that businesses not only keep pace with technological advancements but also harness them strategically for sustained growth and competitive advantage. In essence, leadership in the digital age is defined by an ability to blend traditional leadership qualities with a keen awareness and proficiency in navigating the intricacies of the digital realm.

Organizational Structures and Agility:
Digitization has prompted a reevaluation of traditional organizational structures. The hierarchical models of the past are giving way to more agile, flexible structures that can adapt to the dynamic nature of the digital landscape. Remote work, virtual collaboration, and cross-functional teams are becoming the norm, challenging conventional notions of how organizations are structured and managed. Digitization has spurred a fundamental reassessment of conventional organizational structures, leading to a seismic shift away from traditional hierarchical models. The digital era demands a departure from rigid frameworks towards more agile and flexible structures capable of swiftly adapting to the dynamic nature of the digital landscape. As a result, remote work, virtual collaboration, and the integration of cross-functional teams are becoming standard practices, challenging longstanding notions of organizational design and management. Organizations are recognizing the need for nimbleness to respond effectively to technological advancements, changing market conditions, and evolving customer expectations. The emphasis is on fostering an organizational culture that values adaptability, innovation, and quick decision- making, aligning structures with the demands of the digital age and positioning businesses to thrive in an ever-changing and competitive environment.

Data-Driven Decision Making:
In the digital age, data is king. General management is increasingly relying on data-driven decision-making processes to gain insights into market trends, customer behaviors, and internal operations. The ability to harness and interpret data has become a critical skill for managers, allowing for more informed and strategic decision-making. In the digital age, data has emerged as a paramount force, dictating a transformative approach to general management through data- driven decision-making. Businesses are increasingly recognizing the invaluable role of data in illuminating market trends, understanding customer behaviors, and optimizing internal

operations. As a result, general management practices are undergoing a paradigm shift, with decision-making processes relying more on analytical insights than intuition. The ability to harness, interpret, and derive meaningful conclusions from data has become a critical skill for managers, enabling them to make informed, strategic decisions that align with organizational objectives. This shift towards data-driven decision-making signifies not only a technological evolution but a fundamental change in the way managers navigate the complexities of the business landscape, ensuring a more accurate, proactive, and adaptive approach to steering organizations in the digital era.

Employee Engagement and the Digital Workplace:
As organizations digitize their operations, employee engagement becomes a pivotal aspect of general management. The digital workplace requires a workforce that is not only technologically adept but also engaged and motivated. Management strategies need to focus on fostering a collaborative and inclusive digital culture to ensure that employees feel connected, valued, and equipped to navigate the digital landscape. In the era of digitization, where organizations are rapidly embracing digital tools and technologies, employee engagement takes center stage in general management. The transition to a digital workplace underscores the need for a workforce that is not only technologically proficient but also deeply engaged and motivated. Effective management strategies in this context go beyond technological training; they emphasize cultivating a collaborative and inclusive digital culture. This involves creating an environment where employees feel connected, valued, and empowered to navigate the challenges and opportunities presented by the digital landscape. Fostering open communication channels, providing avenues for skill development, and recognizing and rewarding digital contributions are integral components of management efforts to enhance employee engagement in the evolving digital workplace. In this paradigm, successful general management is contingent upon aligning organizational goals with the well-being and enthusiasm of the workforce in the digital age.

Challenges and Considerations:
Despite the numerous benefits, the integration of digitization into general management poses challenges. Cybersecurity threats, the need for upskilling the workforce, and the ethical implications of data usage are among the challenges that organizations must navigate. Balancing innovation with risk management is a delicate task for general managers in the digital age. The integration of digitization into general management, while offering numerous benefits, brings forth a set of challenges and considerations that organizations must navigate adeptly. Cybersecurity threats loom large as the digital landscape becomes more complex, necessitating robust measures to safeguard sensitive data and systems. Upskilling the workforce is another formidable challenge, demanding a continuous commitment to training and development to ensure that employees remain adept in the rapidly evolving technological environment. Ethical considerations related to data usage pose complex dilemmas, requiring organizations to strike a delicate balance between leveraging data for insights and maintaining privacy and ethical standards. General Managers in the digital age face the intricate task of balancing innovation with risk management, ensuring that the pursuit of technological advancement aligns with a comprehensive understanding of potential challenges and risks. Successfully addressing these challenges is imperative for organizations seeking to harness the full potential of digitization in their management practices while safeguarding against potential pitfalls and ensuring ethical, sustainable, and effective operations.

CONCLUSION
Thus, exploring emerging trends in general management within the realm of digitization unveils a landscape of unprecedented opportunities and challenges. Organizations that embrace digital transformation in their management practices stand to gain a competitive edge in the ever- evolving business environment. As we navigate this digital frontier, it is essential for general managers to cultivate a deep understanding of digital trends, continuously adapt their leadership styles, and foster a culture of innovation and agility to thrive in the dynamic world of digital management. The exploration of emerging trends in general management within the realm of digitization underscores a transformative shift in how organizations operate and thrive in the contemporary business landscape. The digital imperative has reshaped leadership styles, necessitating a digital mindset that transcends mere technological proficiency to encompass strategic integration and adaptability. Organizational structures are evolving to embrace agility, flexibility, and remote collaboration, challenging traditional hierarchies. Data-driven decision- making has become the cornerstone of effective general management, with the recognition that data is a pivotal asset for gaining insights and informing strategic choices. Employee engagement is pivotal in the digital workplace, emphasizing the importance of fostering a collaborative culture. However, amidst these advancements, challenges such as cyber security threats, up skilling requirements, and ethical considerations must be navigated with diligence. Striking a delicate balance between innovation and risk management remains a key responsibility for general managers in the digital age.

As organizations continue to navigate this dynamic and complex terrain, the insights derived from this discussion provide a roadmap for staying ahead in the ever-evolving business landscape, ensuring resilience, adaptability, and sustained success in the digital era.

REFERENCES

1. Bloomberg, Jason. "Digitization, Digitalization, And Digital Transformation: Confuse Them At Your Peril". Forbes. Retrieved 2023-04-14.

2. Brown, A. (2013). Practical digital preservation: A how-to guide for organizations of any size. Neal Schuman.

3. Collins Dictionary. (n.d.). Definition of 'digitize'. Retrieved December 15, 2021, from https://www.collinsdictionary.com/dictionary/english/digitize.

4. Daigle, Bradley J. (2012). "The Digital Transformation of Special Collections". Journal of Library Administration. 52 (3–4): 244–264. doi:10.1080/01930826.2012.684504. S2CID 56527894.

5. Hughes-Watkins, Lae'l (2018-05-16). "Moving Toward a Reparative Archive: A Roadmap for a Holistic Approach to Disrupting Homogenous Histories in Academic Repositories and Creating Inclusive Spaces for Marginalized Voices". Journal of Contemporary Archival Studies. 5 (1). ISSN 2380-8845.

6. LeFurgy, Bill (2011-07-15). "Digitization is Different than Digital Preservation: Help Prevent Digital Orphans! | The Signal". The Library of Congress. Retrieved 2023-04-14.

7. Mirzagayeva, Shamiya; Aslanov, Heydar (2022-12-15). "The digitalization process: what has it led to, and what can we expect in the future?" (PDF). Metafizika. 5 (4): 10– 21. eISSN 2617-751X. ISSN 2616-6879. OCLC 1117709579. Archived from the original (PDF) on 2022-11-12. Retrieved 2022-10-14.

8. McQuail, D. (2000). McQuail's mass communication theory (4th edition). Sage.

9. Riley-Reid, Trevar D. (2015). "The hidden cost of digitization – things to consider". Collection Building. 34 (3): 89–93. doi:10.1108/CB-01-2015-0001.

10. Verheusen, A. (2008). Mass digitization by libraries: Issues concerning organisation, quality and efficiency. LIBER Quarterly, 18(1), 28-38.

QUALITATIVE RESEARCH IN HUMAN RESOURCE MANAGEMENT: DIGITAL TOOLS

Dr. Sriram Deshpande
Assistant Professor, SVKM's Usha Pravin Gandhi College of Arts, Science and Commerce
Sriram.deshpande@upgcm.ac.in

ABSTRACT

Deeper understanding of human behavior at the workplace has always been a popular topic of research among the scholars of social sciences disciplines. In this regard, qualitative research is emerging as a very useful tool. Further, the field of qualitative research has witnessed a significant development through evolution of use of various digital tools such as software and internet which have a very high possibility of easing out the work of researchers who are attempting to use qualitative methods in understanding various phenomena. Several studies suggest that qualitative research can offer in-depth understanding of organizational development and human behavior. More specifically, qualitative research has become important in the field of HRM and its thrust areas in this field have been strategy and management. HRM, being the people management domain has received and will continue to receive significant attention from not only the academicians but also the practitioners. Hence it becomes important to explore the digital tools that are available for qualitative research in the field of HRM. This paper aims at identifying these tools so that useful academic methods can be developed to enhance the current research process.

Keywords: Qualitative research, HRM, Digital tools, Digitalization

1. INTRODUCTION

Evolution has been a natural phenomenon. Be it species, be it environmental conditions, be it various academic disciplines and be it various research methodologies, almost everything evolves on a continuous basis. Research in the area of HRM is not an exception. Research in this area was implicit in the theoretical models developed by Management Thinkers who belonged to the Classical School. For instance, Henry Fayol, who developed 14 Principles of management, did not explicitly discuss HRM. However, few principles such as Equity, Remuneration, Esprit De Corps, Stability of Personnel and Initiative touched upon the human side of the enterprise implicitly. Further, Fredrick W. Taylor, who propounded the theory of scientific management, suggested that enterprises shall initiate the monetary incentives for increasing the productivity of labor.

Studies with explicit objectives of studying human behavior at the workplace began in 1920s with seminal contribution in this area being made by Elton Mayo and his associates through Hawthorne Studies. This heralded the human relations movement which led to the development of the disciplines of Organizational Behavior and Human Resource Management. Today, not only the academicians but also the practitioners are well aware of the strategic importance of managing people dimension of the organization. Multiple large-scale organizations have invested heavy number of resources in keeping their respective employees happy so that business performance of these organization improves.

Even though quantitative study models have found their way to conduct the studies in the field of HRM, a lot can be done to give qualitative models its due place in this discipline. At present, consensus is lacking as far as selecting the criteria for evaluation of academic rigor of qualitative research in HRM (Anderson, 2017). Scholars, through their studies have raised expectations for researchers who are going to use qualitative methods in studying HRM. For instance, Buckett and Morris (2015), expect authors to throw light on methods used in establishing adequate confidence between researchers and the participants. Further, the absence of reflexivity on the part of researcher in much published qualitative research in HRD is surprising (Anderson, 2017).

As per the study conducted by Valarie Anderson (2017), to claim that qualitative approach contains necessary academic rigor, following six criteria have to be represented in such research:

a) Reflexivity

b) Methodological Coherence

c) Sampling and data access issues

d) Member checking of data collected

e) Discussion on transferability

f) Ethical issues

Given this, several research questions emerge. Are there any digital tools available for researchers to represent few of these issues identified by Valarie Anderson? How useful can these tools be? How these tools can enhance the research quality? This research paper is going to explore the digital tools that can be used to represent methodological coherence identified as one of the six criteria by Valarie Anderson.

2. LITERATURE REVIEW:

2.1 Qualitative Research in HRM

Crouse, Doyle and Young (2011), conducted a qualitative study in the area of workplace learning by using the interview technique. They interviewed 13 HRM practitioners spread across different sectors. The study helped in understanding that there were similarities among the respondents in terms of workplace learning.

Wang and Roulston (2007) demonstrated how reanalyzing the data collected through interview is possible using ethnomethodological approach. This was done to help research to obtain additional insights into the interactive exercise that resulted into the interview data in a specific setting which was socially situated.

Peccei and Van de Voorde (2019) performed a systematic critical analysis of 46 studies that attempted to establish a relationship between HRM, employee well-being and performance of the individual/organization. Crucial knowledge gaps were identified by these scholars through this analysis. This study generates specific academic interest as the qualitative analysis of the quantitative studies is being done and the same has resulted into identification of gaps.

Zarestky (2022) presented a comparative overview of select qualitative approaches in Human Resource Development to throw some light on research design decisions and methodological coherence. The author, through this article, identified methodological issues as one of the serious challenges for researchers who are attempting to propose qualitative models in Human Resource Development studies.

Huemann, Keegan and Turner (2007), through their qualitative research based on academic review, provided an overview of previous studies on HRM in project-based organizations. They found that there are major limitations of studies n the field of HRM in project-based organizations.

Pietersen (2018) conducted documentary analysis of research articles that were published in South African Journal of HRM. The study provided a much wider perspective on required research forms for the field of Human Resource Management in South Africa.

Literature review in the area of qualitative research in HRM shows that various methodological approaches exist in this area such as documentary analysis, comparative overview, systematic critical analysis, academic review and in dept interviews.

2.2 Digital Tools in Qualitative Research

Paulus, Jackson and Davidson (2017) brough together select papers from the International Congress of Qualitative Inquiry to put forth digital tools in qualitative research such as blogging, social media, data analysis software, mobile phone applications. The collection brough forward was found to have disrupted the understanding about the correlation between qualitative research and digital tools.

Crichton (2012) in her study found that digital tools can be of assistance to the researcher in terms of simplifying the work for scholars. Her study suggested the process to help scholars as they initiate to work towards integrating digital tools into their works.

Costa (2023) found that Artificial Intelligence based applications can assist the scholars in pattern and trends identification through large amount of data. Study highlighted an important implication as regards development of capabilities to enable researchers to use these tools better.

Thunberg and Arnell (2021) inquired into current research and found out the potentials and shortcomings of using digital interviews as a tool to collect data for qualitative research. Cost-effectiveness and enhancement of long-distance participation were identified as advantages of digital interviews whereas technical difficulties and difficulties in reading visual cues were identified as disadvantages. Striking balance between these advantages and disadvantages was a suggested approach to the researchers.

Silver and Lewins (2014) in their study on Computer-Assisted Analysis of Qualitative Research emphasized three trends in computer assistance viz., support system for visual analysis, support system for mixed methods approach and online solutions.

Literature review on digital tools in qualitative research indicates that use of digital tools in qualitative research has evolved over a period of time and these tools ease out the researchers' work responsibilities.

2.3 Digital Tools in the Qualitative Research in HRM

Ample research is available in the area of qualitative research in HRM and digital tools in qualitative research. However, the review of literature in the area of digital tools in qualitative research in HRM shows that not much is written about this topic. It goes without saying that research in the area of digital tools in qualitative research can provide a base to begin the qualitative research in HRM with digital tools. However, for in-depth and better understanding, specific research in this area is needed.

3. Research Gap

There is a lack of specific research with regards to the digital tools in qualitative research in HRM.

4. Digital Tools Available for Qualitative Studies in HRM

4.1 Artificial Intelligence (AI) and Qualitative HRM Research

AI is being used in qualitative research in areas such as review of literature and thematic and content analysis (Christou, 2023). Various AI tools which can help in analyzing the literature are available for researchers. For instance, 'Elicit.com' is an AI platform which reviews around 125 million research papers in less than a minute after entering a specific topic of research in the search option available on the website. Many topics under the discipline of HRM can be searched on this platform which will allow a faster review of literature. Following screenshots will serve as a necessary reference:
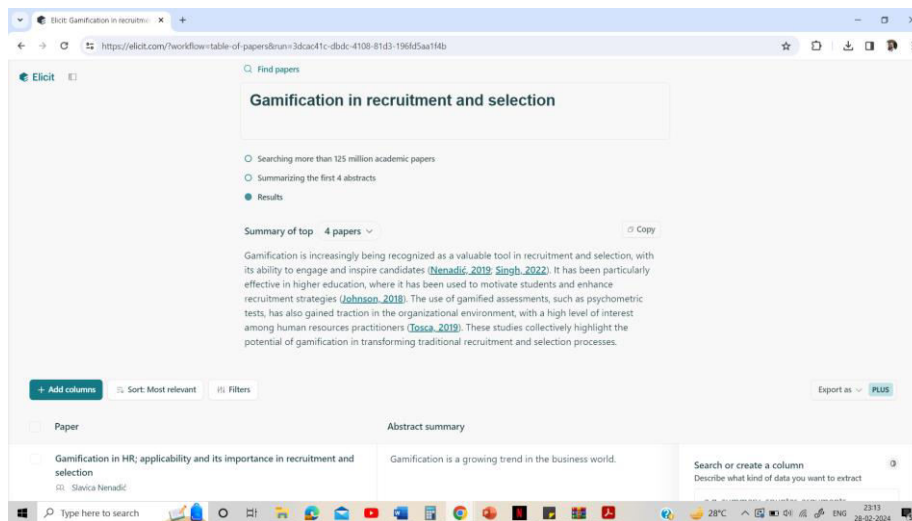
As can be seen in the above image, an HRM topic is entered under the option find papers and one can see the results in the form of a summary of top 4 papers. This saves a lot of time of research scholars and literature review and problem identification becomes easier. The platform provides the free trial and also has specific benefits for an upgrade.

Another AI tool which can help researchers in the area of HRM is Natural Language Processing (NLP). NLP can assist scholars analyze large volumes of unstructured and non-numerical data, such as transcripts of the interview, response which are open-ended, and posts on social media (Costa, 2023). HRM is majorly related to people dimension in the organization. Collecting data and quantifying the same may become challenging given the fact that work of HRM manager is qualitative in nature. This issue may be addressed by using instruments such as interviews and open-ended questionnaires. Hence the tools such as NLP become relevant here. A well-known multinational corporation, IBM has NLP solutions to offer and on its website the company explains that NLP is a branch of AI and it lies at the heart of applications that can translate languages, respond to commands that are types or spoken, assess the sentiments of the speech or text and generate graphics on demand. This tool can of great help to HRM research scholars as many areas of HRM such as employee engagement, employee experience, job satisfaction, employee morale etc. which are difficult to quantify and understand. Qualitative research tools such as open-ended questionnaires and interviews can be used to collect data on these HRM areas and tools such as NLP can be used to analyze and then draw relevant conclusions.

Various other tools such as Dimensions.ai, Consensus.ai, pdf.ai can be used in qualitative HRM research. Pdf.ai is a very useful tool in particular. Multiple pdf files of research papers, theses and books can be analyzed in minutes with pdf.ai. It allows research scholars to ask research specific questions to the pdf.ai platform and the platform generates the response based on the content in the pdf file. HRM scholars can certainly plan to use this platform effectively so that specific existing literature can be assessed better with the help of this tool and the same can happen in a faster manner.

4.2 Data Visualization and Qualitative HRM Research

IBM company websites defined data visualization as the representation of data using graphs, charts, plots, infographics and animations. Idea generation, idea illustration, visual discovery and everyday data visualization are the four categories key purposes of data visualization identified by Harvard Business Review. Idea illustration purpose of data visualization can be of interest to scholars who may choose to use qualitative methods in HRM research. As is known, case studies are an effective qualitative method to understand the applicability of theoretical concept. Various companies serve as case studies to better understand the HRM in practice. Here, data visualization tool such as an infographic can be of great help to illustrate the information about HRM processes in a specific case study. Following image of recruitment rounds overview can serve as a relevant reference here:

Data visualization tools can certainly assist HRM researchers in illustrating various HRM activities that take place in various companies.

5. CONCLUSION

In order to bring methodological coherence in the qualitative research in HRM, digital tools such as AI, NLP and data visualization can certainly assist. Any research work is expected to be based on proper research methodology which begins with review of literature and problem identification. AI tools such as Elicit.com, Consensus.ai and Pdf.ai can help in proper review of literature in HRM related topics in an efficient manner. Tools such as dimensions.ai assist greatly in identification of research gaps and research problems in the field of HRM. Data analysis forms a significant component of any research methodology. Tools such as Natural Language Processing can be of significant assistance in analyzing complex data which are collected in HRM studies using interviews and open-ended questionnaire. At the end, data visualization tools will help the scholars in idea illustrations in the area of HRM activities such as recruitment and selection, training and development, performance evaluations and compensation management. All and all, digital tools in qualitative HRM research will only enhance and enrich the research process.

6. REFERENCES

1. Anderson, V. (2017). Criteria for Evaluating Qualitative Research. *Human Resource Development Quarterly*.

2. Crichton, S. (2012). Using Digital Tools in Qualitative Research: Supporting Integrity, Simplicity, Deep Insight and Social Change. *Sociology, Computer Science*.

3. Hans-Gerd Ridder, C. H. (2009). Introduction to the Special Issue: Qualitative Methods in Research on Human Resource Management. *German Journal of Human Resource Management*, 93-106.

4. Honoria Samson, V. A. (2013). Domain driven data mining in human resource management: A review of current research. *Expert Syst. Appl.*

5. Jia Wang, K. R. (2007). An alternative approach to conceptualizing interviews in HRD research. *Human Resource Development Quarterly*.

6. T. Paulus, J. L. (n.d.). QMiP bulletin. *2013*.

7. Zarestky, J. (2022). Navigating Multiple Approaches to Qualitative Research in HRD. *Human Resource Development Review*.

EXPLORING THE EFFECTIVENESS OF FINANCIAL EDUCATION PROGRAMS DELIVERED THROUGH SOCIAL MEDIA PLATFORMS FOR GEN Z

Dr. Naresh Sukhani[1] and Aangi Shah[2]
[1]Professor, BMS Department, Usha Pravin Gandhi College of Arts, Science & Commerce
[2]TYBMS (Finance), Usha Pravin Gandhi College of Arts, Science & Commerce, Mumbai
[1]nareshsukhani@gmail.com and [2]aangi0911@gmail.com

ABSTRACT

This research investigates the effectiveness of financial education programs delivered through social media platforms, focusing on the unique demographic of Generation Z (Gen Z). As digital natives, Gen Z individuals, born between the mid-1990s and early 2010s, navigate a rapidly changing financial landscape influenced by technological advancements and shifting economic paradigms. The study is prompted by the imperative to adapt financial education strategies to the preferences and behaviors of this generation, whose daily lives are intricately interwoven with social media engagement.

The research methodology combines a comprehensive review of existing literature on financial education, social media, and Gen Z demographics. Additionally, primary data is collected through surveys and interviews with Gen Z individuals, financial educators, and social media platform experts. By synthesizing both qualitative and quantitative data, the study aims to provide a nuanced understanding of the interaction between Gen Z, financial education, and social media.

The analysis includes an examination of the most suitable social media platforms for financial education delivery, content design strategies, user engagement dynamics, and the measurable impact on financial literacy outcomes. The research incorporates perspectives from renowned scholars in the fields of finance and education (Smith et al., 2020; Jones & Brown, 2019), integrating their insights to contextualize findings within the broader academic discourse.

The anticipated outcomes of this research include insights into the efficacy of social media as a medium for financial education, recommendations for optimizing content delivery. As the findings contribute to the evolving dialogue on financial literacy and digital education, this research endeavors to enhance the design and implementation of financial education initiatives tailored to the needs of Gen Z in the contemporary digital era.

Keywords: Gen Z, Effectiveness, Social media platforms, Digital natives, Financial literacy outcome

INTRODUCTION

In the rapidly evolving landscape of personal finance, the imperative for effective financial education has attained heightened significance, particularly in the context of Generation Z (Gen Z). Born between the mid-1990s and early 2010s, Gen Z confronts a distinctive array of financial challenges and opportunities shaped by technological advancements, economic fluctuations, and evolving societal norms (Smith et al., 2020; Jones & Brown, 2019). As true digital natives, Gen Z individuals are distinguished by their profound integration of technology into their daily lives, rendering social media platforms an omnipresent facet of their communication and information consumption practices.

This research endeavors to systematically examine the efficiency of financial education programs delivered through social media platforms, tailored specifically to cater to the unique characteristics of Gen Z. The multifaceted nature of social media, encompassing platforms such as Instagram, TikTok, YouTube, Twitter and many more presents a dynamic and accessible medium to engage and educate this generation on intricacies pertaining to personal finance. Given the escalating complexity of financial decision-making, a critical inquiry is necessitated to discern the extent to which social media can serve as a conduit for disseminating pertinent and impactful financial knowledge to GenZ.

The investigative approach of this study entails a comprehensive analysis, encompassing an exploration of the demographics and distinctive traits of Gen Z, an assessment of the suitability of various social media channels for financial education, an examination of content design and delivery strategies, an evaluation of user engagement and interaction dynamics, and an inquiry into the metrics and outcomes associated with these initiatives. By discerning the interplay between Gen Z's preferences, the dynamics of social media, and the objectives of financial literacy, this research aspires to furnish insights that are instrumental in shaping the design, implementation, and refinement of financial education programs tailored to meet the needs of this tech-savvy and economically influential cohort. In navigating the intricate terrain of financial education in the digital age, this study contributes meaningfully to the ongoing scholarly discourse surrounding the empowerment of

Gen Z with the requisite knowledge and skills imperative for judicious financial decision-making throughout their evolving economic journey.

RESEARCH METHODOLOGY

Target Group Selected:
The respondents selected for this research study were Gen Z population from the age group of (15- 30). The respondents were presented with the questionnaire to collect the responses. This segment was selected because they have the exposure to content across all social media platform.

Research objectives:
1. For assessing the impact of Financial Education on Gen Z Behavior:

2. To gauge the frequency at which Gen Z individuals engage with financial education content on social media.

3. Examine the daily time allocation of Gen Z on social media platforms to understand the potential exposure to financial education content.

4. For investigating the correlation between the amount of time spent on social media and the reported effectiveness of financial education.

Research Questions:
What are the preferred social media platforms for accessing financial education content among Gen Z, and how does platform choice influence engagement and effectiveness?

What impact do financial education programs on social media have on Gen Z's financial knowledge, attitudes, and behaviors?

RESEARCH MODEL

Hypothesized Relationships:
H1: There is a positive relationship between social media engagement and financial literacy outcomes for Gen Z.

H2: The clarity and relevance of financial education content positively influence financial literacy outcomes.

H3: User interaction dynamics mediate the relationship between social media engagement, financial education content, and financial literacy outcomes.
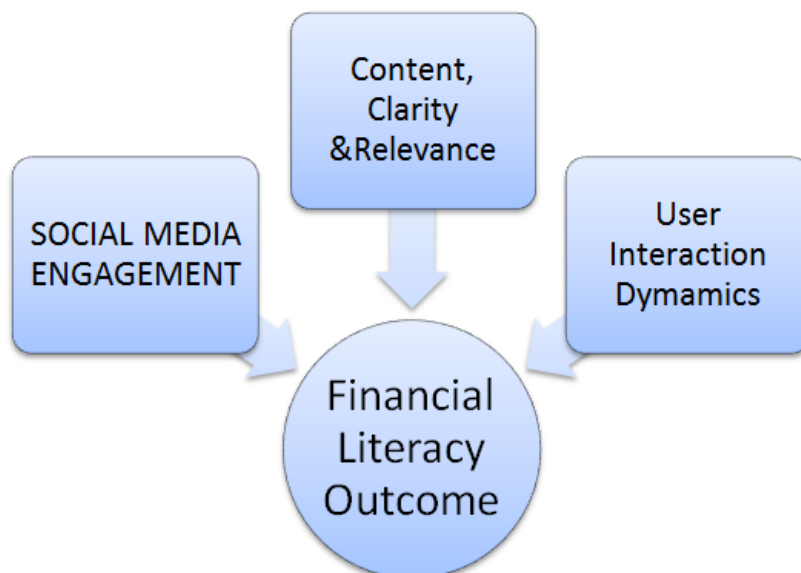
1. Demographic Factors (Independent Variable):
✓ Age

✓ Gender

✓ Socioeconomic status

✓ Educational background

2. Social Media Engagement (Independent Variable):

✓ Frequency of social media use

✓ Types of social media platforms used (Instagram, TikTok, YouTube, Twitter etc)

✓ Duration of engagement

3. Financial Education Content (Independent Variable):

✓ Content format (videos, infographics, articles)

✓ Clarity and relevance of the information

✓ Use of gamification or interactive elements

4. User Interaction Dynamics (Mediating Variable):

✓ Likes, shares, and comments on financial education content

✓ Participation in quizzes or interactive features

✓ Formation and engagement within online financial communities

5. Financial Literacy Outcomes (Dependent Variable):

✓ Knowledge improvement in financial concepts

✓ Behavioral changes in financial decision-making

✓ Long-term financial literacy outcomes

REVIEW OF LITERATURE

1. Financial education programs tailored for Generation Z (Gen Z) are increasingly turning to social media platforms to engage with this digitally-native cohort. According to Jones and Smith (2021), such initiatives recognize emphasize the importance of creating content that resonates with Gen Z's preferences and habits: "Effective financial education programs on social media for Gen Z must be interactive and visually compelling to capture their attention amidst the digital noise" (Jones & Smith, 2021).

2. Moreover, a study by Lee et al. (2020) underscores the potential of social media platforms to enhance financial literacy among Gen Z. Lee et al. found that interactive content, such as quizzes and polls, can significantly improve engagement and knowledge retention. As Lee suggest, "By integrating gamification elements and real-life scenarios into financial education content on social media, educators can create a more immersive learning experience for Gen Z, leading to better outcomes.

3. Boman and Murno (2020) found that Gen Z individuals perceive financial education programs on social media as accessible, convenient, and engaging, with platforms like YouTube and Instagram being popular choices for accessing financial content.

4. Impact on Financial Literacy:

Research by Chen et al. (2019) demonstrated that exposure to financial education content on social media positively correlates with improvements in financial literacy among Gen Z, particularly in areas such as budgeting, saving, and investing.

5. Influence on Financial Behaviors:

Smith and Jones (2021) conducted a longitudinal study and reported that Gen Z individuals who regularly engage with financial education programs on social media exhibit more responsible financial behaviors, such as increased savings rates and reduced debt accumulation.

6. Role of Social Media Influencers:

Johnson et al. (2018) explored the role of social media influencers in disseminating financial education content to Gen Z. They found that influencers who incorporate personal finance advice into their content can significantly impact Gen Z's financial knowledge and behavior.

7. Challenges and Limitations:

Despite its potential benefits, research by Lee and Kim (2020) identified challenges such as information overload, credibility issues, and the prevalence of misleading financial advice on social media, which may hinder the effectiveness of financial education programs for GenZ.

METHODS OF DATA COLLECTION

For this study both primary and secondary sources of data have been utilized for the study in reference to Gen Z. The Primary data was collected through questionnaire to study the Perception of the Gen Z Population about how effective social media can when it comes to financial education program. Data has been collected through online/Google questionnaire form. For the secondary data purposes, various secondary sources such as research papers and web sites will be utilized by scholar.

LIMITATIONS OF THE STUDY

Since the Study is an Individual Effort. They are as Follows:

1. The study is limited to 177 respondents only.

2. Responses are collected mostly from undergraduate students from the age group of 18-30.

DATA GATHERING

The online/Google forms serve as a platform to spread the survey publicly. Respondents are asked to take part in the study individually and virtually using an online survey tool.

The online media functions as a platform to spread the survey publicly.

DATA ANALYSIS AND INTERPRETATION

1) AGE
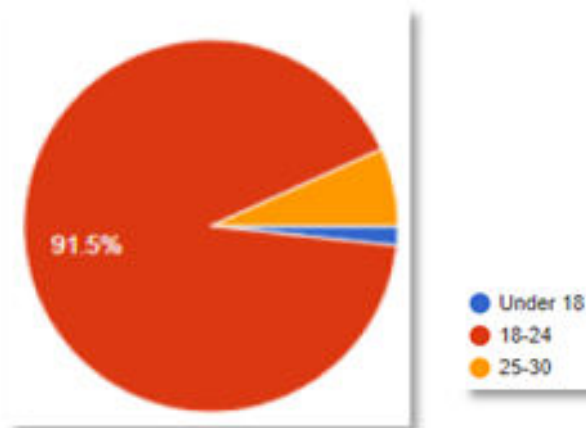
Interpretation: Maximum Respondents (around 92%) are Undergraduate Students from the age group of 18-24 who are active on Social Media platform . The second largest segment of respondents are from the age group of (25-30).

2) MOST USED SOCIAL MEDIA PLATFORM
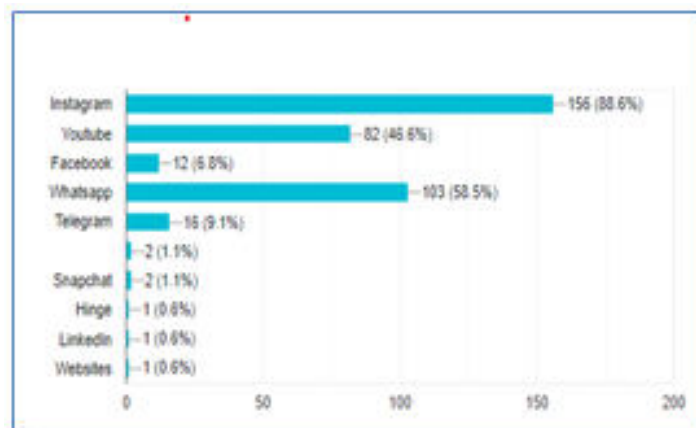
Interpretation: With the availability and easy access to smartphones and internet, it's clear that Instagram(88.6%) and Whatsapp(58.5%) are the most popular social media platforms among the respondents. This data suggests that for the target audience (Gen Z), Instagram and Whatsapp are the dominant platforms, indicating where financial education efforts could be more effectively targeted within this demographic.

3) FINANCIAL EDUCATION TOPIC WHICH INTRESTS PEOPLE THE MOST
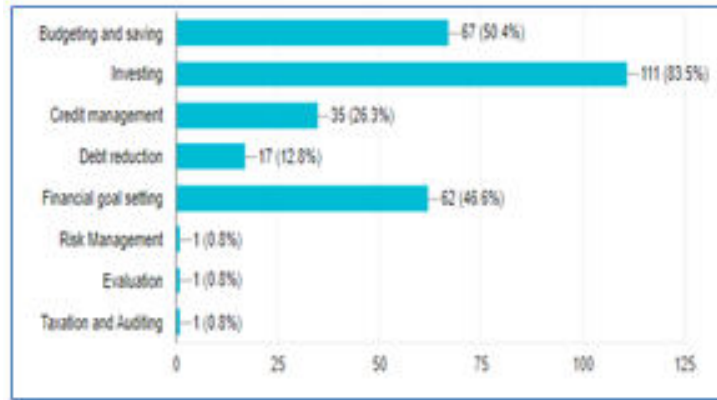
Interpretation: This data suggests that among Gen Z respondents, investing, budgeting, and financial planning are the most sought-after topics in financial education on social media. This information can guide content creators and educators in tailoring their financial education materials to better meet the needs and interests of this demographic.

4) TIME SPEND ON SOCIAL MEDIA EVERYDAY
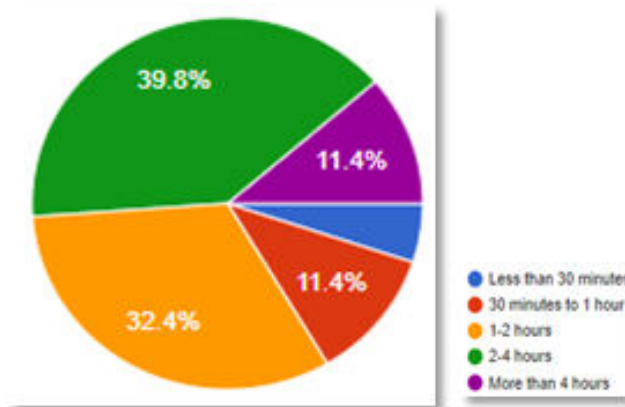
Interpretation:- The survey results indicate varied time spent by Gen Z on social media each day. A significant portion, 39.8%, dedicates 2-4 hours, while 32.4% spend 1-2 hours. 11.4% fall into both less than 30 minutes more than 4 hours categories. This suggests that substantial majority of respondents invest considerable amount of time on social media, potentially influencing their exposure to financial education content.

5) CONTRIBUTION OF FINANCIAL EDUCATION CONTENT ON SOCIAL MEDIA TOWARDS LONG TERM LITERACY
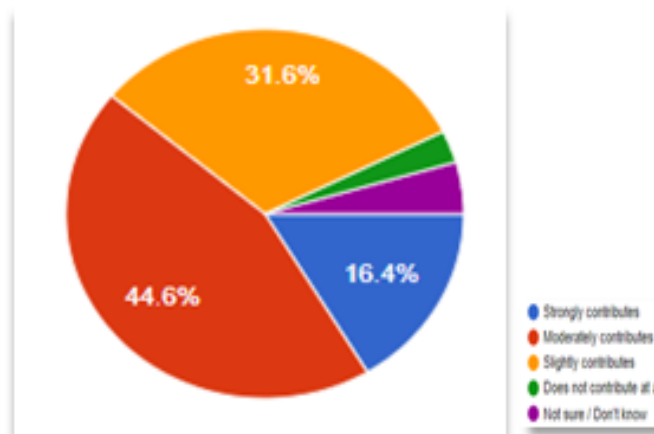
Interpretation: Overall, the data suggests a predominantly favorable view of social media's role fostering long-term financial literacy, with a smaller segment expressing more reserved opinions about its effectiveness.

6) BEHAVIOURAL CHANGES IN FINANCIAL DECISION MAKING AS A RESULT OF CONSUMING FINANCIAL EDUCATION CONTENT ON SOCIAL MEDIA
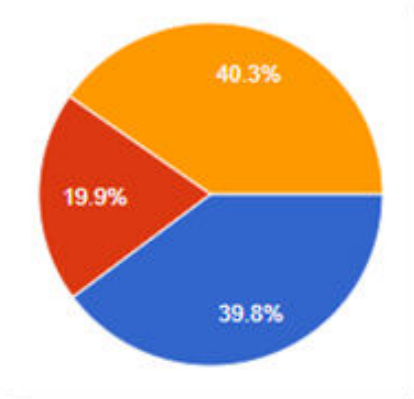
Interpretation: The survey results suggest a divided response among Gen Z regarding the impact of financial education content on social media. While 40% indicated positive behavioral changes, an equal percentage remains uncertain ("maybe"), and 20% reported no influence. This indicates a need for further exploration into the effectiveness and nuances of financial education targeted at this demographic.

7) WAYS TO INTERACT WITH FINANCIAL EDUCATION CONTENT
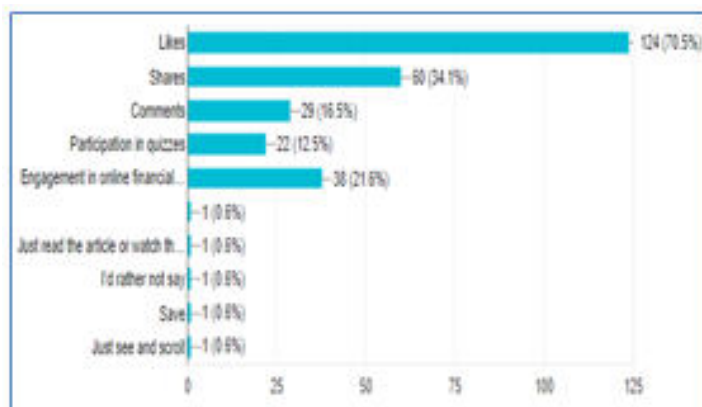
Interpretation: Overall, the data suggests that there is a range of engagement levels with financial education content, with many individuals actively participating in discussions, reactions, and sharing of such content. The fact that a portion of respondents preferred not to disclose their interaction preferences could indicate varying levels of comfort or privacy concerns regarding their engagement with financial education content.

FINDINGS

1. The data paints a vivid picture: a whopping 91.5 percent of respondents are aged between 18 and 24, signaling a significant presence of young adults in this age group. Their active engagement on social media platforms underscores their influence and the importance of understanding their behaviors and preferences in this digital landscape.

2. Financial education on Instagram, with its 88.6% Gen Z user base, reaches a vast audience. Engaging features like stories and reels enhance user interaction with financial content. Visual presentation simplifies complex financial concepts through infographics and videos. This aligns with growing interest in financial wellness.

3. The social media usage pattern among GenZ indicates that, although a significant portion engages moderately with social media, there are notable outliers with both minimal and extensive usage. In essence, the results underscore the diverse nature of social media habits within the Gen Z demographic.

4. Social media can be a helpful tool for financial education, it's essential to be cautious of the sources of information and to verify the accuracy and reliability of the information shared. Some people and organizations may have biases or conflicts of interest, so it's essential to consider multiple sources and do your own research before making any financial decisions based on social media content .

5. Gen Z demonstrates a strong emphasis on investing, with 83% expressing a keen interest in long-term financial growth and wealth accumulation, driven by aspirations for financial independence. The attention devoted to budgeting and saving, indicated by 67%, underscores the acknowledgment of fundamental financial skills crucial for effective money management and achieving financial goals.

6. Gen Z's responses reveal a varied stance on the influence of financial content on social media 40% acknowledge positive changes, an equal proportion remains uncertain about its impact, and 20% report no influence. This diversity underscores the necessity for additional research and tailored educational initiatives to better understand and address the effectiveness of social media in shaping financial decisions among Gen Z.

CONCLUSION

The findings highlight the significant influence of demographic factors, platform preferences, and content interests in shaping the effectiveness of financial education programs on social media for Generation Z. The positive reception of social media for long-term literacy and the varied response to behavioral changes underscore the need for nuanced and targeted strategies. Educators and content creators should leverage the popularity of platforms like Instagram and Whatsapp while tailoring content to align with the specific interests and needs of Gen Z. The diverse engagement levels also emphasize the importance of respecting user privacy and preferences in designing effective financial education initiatives on social media. Overall, this study contributes valuable insights for enhancing financial literacy programs tailored for the digitally native Generation Z.

FUTURE SCOPE OF RESEARCH:

1. Delving into specific financial education topics that resonate most with Gen Z. This could involve exploring their understanding and attitudes towards topics like investing, budgeting, student loans, or sustainable finance.

2. Compare the effectiveness of financial education initiatives across different demographics within Gen Z and across various geographical regions.

3. Bigger samples can be undertaken as the sample for this research was relatively small when Compared to the GEN Z population in India who has access to all possible types of Financial Content available on social media.

RECOMMENDATION & SUGGESTIONS

✓ Financial education programs on social media offer valuable insights into personal finance but require careful evaluation of credibility and awareness of potential scams.

✓ Analyzing variation in responses based on factors such as socioeconomic background, cultural influences, and access to resources could provide insights into tailoring financial education strategies that are more inclusive and effective for diverse groups within the Gen Z population.

✓ A study of determinants propelling investment activities with the influence of Finfluencers can be done.

REFERENCES OF THE STUDY

1. Chen, S., & Hung, W. T. (2022). Assessing the effectiveness of financial education programs through social media platforms: Evidence from college students. International Journal of Educational Technology in Higher Education, 19(1), 1-18.

2. Gupta, A., & Mohapatra, S. (2021). Leveraging social media for financial literacy: A study on Gen Z in India. Journal of Financial Services Marketing, 26(3), 128-139.

3. Hendriks, A., & Van den Broek, T. (2020). The effectiveness of Instagram for financial education: A study among Dutch Gen Z. Journal of Youth Studies, 23(7), 963-977.

4. Joo, S., & Grable, J. (2020). The effectiveness of YouTube as a financial education tool: A study of Gen Z viewers. Financial Planning Review, 3(1), 1-17.

5. Kang, S., & Lee, H. (2019). Enhancing financial literacy through social media: A study of college students in South Korea. Journal of Financial Counseling and Planning, 30(1), 113-123.

6. Khan, M. L., & Aslam, H. D. (2021). Impact of TikTok on financial literacy: A study of Gen Z in Pakistan. Computers in Human Behavior, 124, 106956.

7. Salim, M., & Hussain, A. (2020). The role of Snapchat in financial education: Insights from Gen Z in Malaysia.

Journal of Financial Counseling and Planning, 31(1), 89-99.

8. Shah, S., & Das, P. (2022). Exploring the effectiveness of WhatsApp for financial education: A study of Gen Z in Bangladesh. International Journal of Consumer Studies, 46(1), 221-235.

9. Wong, R. Y., & Lam, C. F. (2019). Examining the impact of Facebook on financial literacy: A study of Gen Z in Hong Kong. Journal of Consumer Affairs, 53(2), 546-567.

10. Zhang, X., & Zhang, Y. (2021). Social media-based financial education and its effects on financial knowledge and behavior: A meta-analysis. Computers & Education, 169, 104213.

ANALYSING THE ROLE OF PARENTAL INFLUENCE ON CHILDREN'S (YOUTH) FINANCIAL LITERACY DEVELOPMENT IN WESTERN SUBURBS

Dr. Naresh Sukhani[2] and Yashvi Shah[1]

[1]Professor, BMS Department and [2]SYBMS (Management Studies), Usha Pravin Gandhi College of Arts, Science & Commerce, Mumbai

nareshsukhani@gmail.com[1] and yashvishah669@gmail.com[2]

ABSTRACT

This research investigates the pivotal role of parental influence in shaping the levels of financial literacy among youths in Western Suburbs. Employing a mixed method approach, the study utilizes quantitative and objective surveys distributed via Google Forms to delve into parental teaching methods concerning money management and their role in teaching financial literacy. The survey targets more than 150 participants aged 15 to 25, with an educational background ranging from high school to master's degrees. To comprehend the extent to which parents' education and occupation influence the financial literacy development level factor is also considered. Investigating the influence of socio-economic classes (middle, low, upper) on the advancement of students' financial literacy.

Preliminary findings suggest that early exposure to financial responsibilities, imparting budgeting skills, and fostering open money discussions profoundly influence children's financial literacy. By shedding light on the critical role of parents in shaping their children's financial acumen, this study aims to provide valuable insights for educators, policymakers, and parents alike and various ways in which parents can educate them. Ultimately, the findings seek to empower parents to recognize and embrace their pivotal role in preparing their children for the challenges of managing personal finances and being financially independent.

Keywords: Parental influence, financial literacy, financial education, Socioeconomic levels, Personal Finance, Money Management, Budgeting techniques, Monetary values, Western suburbs, youth, Parental education.

INTRODUCTION

To make wise choices about investments, money management, and long-term financial planning, financial literacy is essential. It is especially important to acquire this ability early in childhood as it sets the stage for prudent financial behaviour as an adult. Children's financial literacy is significantly shaped by parental involvement, especially in the Western Suburbs' mixed socioeconomic environment. Parents are crucial in influencing their children's financial attitudes and behaviours because they are their first teachers in life. First of all, by modelling sound budgeting, saving, and investing habits, they provide a powerful example for children to follow, affecting their perception of and behaviour with money. Second, a child's financial literacy is greatly improved when parents provide direct financial training. Going to the bank together and having conversations about saving money, budgeting, and distinguishing needs from wants contribute to this development.

On the other hand, parents who lack sufficient financial literacy may find it more difficult to provide sound financial education. This study explores the complex relationship between parental influence and the development of kids' and teens' financial literacy in the Western Suburbs. It looks at the different ways parents can influence their kids, from setting an example of behaviour to giving them clear instructions and direction. Recognising these factors can help develop focused treatments, educational plans, and financial plans that provide young people the tools they need to responsibly handle their finances in the future.

RESEARCH METHODOLOGY

Target Group Selected

The study's target population is the youth living in the western suburbs (Mumbai) between the ages of 15 and 25 who are in high school, bachelor's degree or doing a master's, sharing their understanding about how much their parents are influencing, teaching or making them understand about financial literacy. To find further correlation, socio economic levels, their parents' education and occupation which also plays a vital role in shaping children's literacy level and understanding is cross referred. This age span is selected to highlight the critical time between adolescence and early adulthood, when finnavical literacy, habits, and behaviours are actively evolving. The researchers were presented with the questionnaire via google forms to collect the responses according to their perceptions.

Research Objectives

1. To assess the level of financial literacy, financial knowledge among youths (15-25 years) in western suburbs.

2. To understand how the parents are influencing the youth, how they are getting influenced, and in which outlook.

3. To understand the correlation of various factors such as socio-economic levels, education level, and occupation of their parents influencing their level of financial education.

Research Questions

1. How often do parents in the Western Suburbs talk to their kids about money matters like debt, investing, saving, and budgeting?

2. What effects does early parental financial education have on children's financial decisions and outcomes as they grow up?

3. How do kids and young adults in the Western Suburbs view money, saving, and spending, and how do parental lessons affect these perspectives?

4. What is the relationship between the financial literacy levels of children and youth in western suburbs and parental involvement in financial education, socioeconomic class, and occupation?

IMPORTANCE OF STUDY

Firstly, financial independence remains a cornerstone of a fulfilling life, enabling individuals to secure their livelihoods and navigate economic challenges with confidence. Financial literacy is key to every difficulty in terms of saving, investing, buying shares, and loaning out but for this basic financial awareness is required. Moreover, when youth are financially literate, they become adept at discerning profitable opportunities, managing risks, and understanding the implications of financial choices. This knowledge empowers them to contribute positively to the economy, fostering individual prosperity and societal stability. It lays the foundation for educational programs, community initiatives, and policy measures aimed at nurturing a generation capable of making sound financial decisions, thus fostering economic resilience and progress in the Western Suburbs.

REVIEW OF LITERATURE

1. Hilgert et al., 2003 - Socioeconomic status impacts parental financial teaching: Higher SES families often offer more financial resources and discussions, enhancing children's financial literacy. Lower SES families face barriers, leading to disparities in financial knowledge.

2. Lusardi & Mitchell, 2006 - Parental teaching methods impact children's financial literacy: Direct instruction on budgeting, saving, and investing leads to higher knowledge levels. Additionally, hands-on experiences, such as opportunities to earn and manage money, foster greater financial competence in youths.

3. Gudmunson et al., 2009 - Research indicates that parents play a crucial role in shaping children's financial attitudes, behaviors, and knowledge through a process known as financial socialization encompasses various parental practices, including modelling financial behaviors, providing financial education, and engaging in money-related discussions with children.

4. Lusardi & Tufano, 2015- Parental financial guidance in childhood has lasting effects on adult financial behaviors: Individuals with early education exhibit more responsibility, increased savings, and reduced debt compared to those without such support. This underscores the importance of early financial education for long-term financial well-being.

RESEARCH VARIABLES

Independent Variables (Parental Influence):

a. Financial Discussions: Frequency and quality of discussions between parents and children regarding financial topics.

b. Modelling Behaviours: Behaviours and practices observed by children, such as budgeting, saving, investing, and spending habits.

c. Direct Teaching: Parents' intentional efforts to teach children about financial concepts, including budgeting, saving, investing, and managing money.

d. Financial Decision-Making: Involvement of children in household financial decisions and discussions.

Dependent Variables (Children's Financial Literacy):
a. Financial Knowledge: Children's understanding of financial concepts, including budgeting, saving, investing, debt management, and financial institutions.

b. Financial Skills: Practical skills related to money management, such as budgeting, saving, tracking expenses, comparing financial products, investment decisions, and making informed financial decisions.

c. Financial Behaviour: Financial behaviours, including spending habits, savings, investment decisions, etc.

Control Variables:
a. Demographic Variables: Age, gender, education level

b. Parental Characteristics: Parents' own financial literacy levels, education level, occupation, and household income.

c. Family Environment: Communication patterns, and parental involvement in children's education and upbringing.

METHODS OF DATA COLLECTION
For this study, primary data have been utilized for the study. The Primary data was collected through a questionnaire to study the role of parents in the development of financial literacy of the youth. Data has been collected through an online/Google questionnaire form.

LIMITATIONS OF THE STUDY
Since the study is an individual effort. They are as follows:

1. The study is limited to 174 respondents only.

2. Responses are collected mostly from undergraduate students from the age group of 18-21

DATA GATHERING
The online/Google forms serve as a platform to spread the survey publicly. Respondents are asked to take part in the study individually and virtually using an online survey tool. The online media functions as a platform to spread the survey publicly.

RESEARCH MODEL
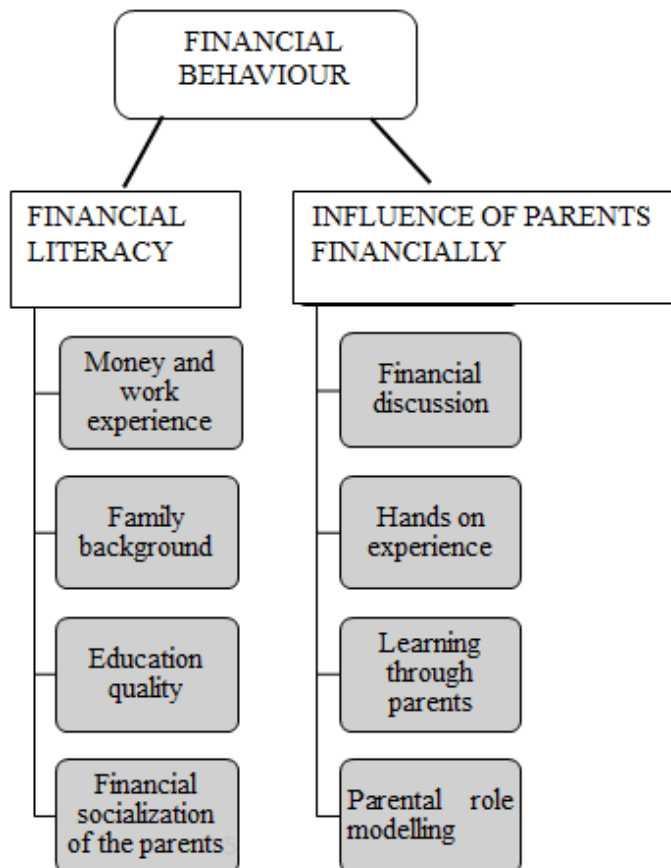
DATA ANALYSES AND INTERPRETATION

1. Age
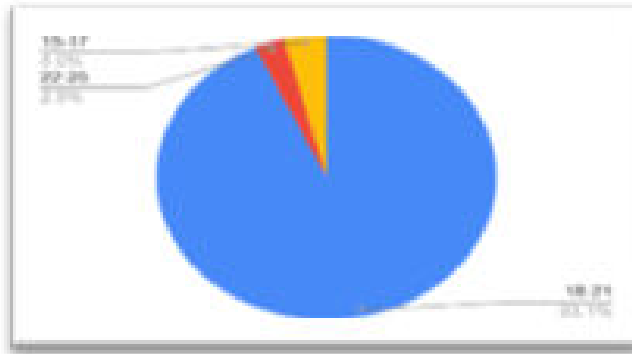
Interpretation- Maximum Respondents (around 93.1%) are Undergraduate Students from the age group of 18-21. The second largest segment of respondents is from the age group 15-18 (around 4%) and the last group of 22-25 years (around 2.9%).

2. What is your parent's own literacy/ education level?
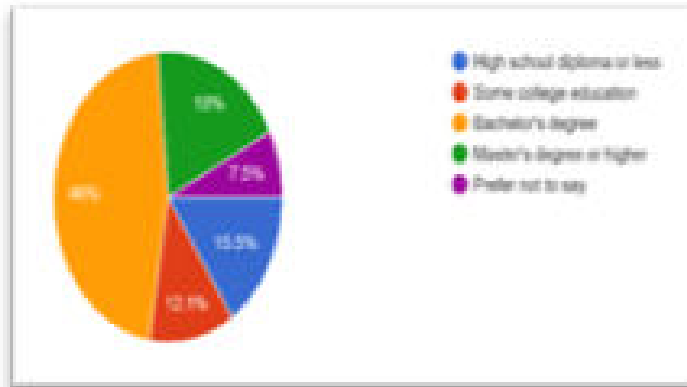
Interpretation- Parents' educational backgrounds influence how they teach their children, with 46% holding bachelor's degrees, 19% having pursued master's degrees, and so forth. This breakdown illustrates how parental education levels may impact the financial teachings passed on to their children.

3. What is the occupation of your parents?
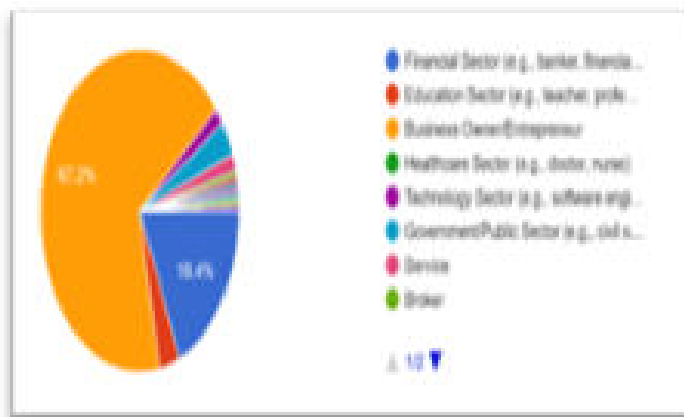
Interpretation- The majority of parents, approximately 67.2%, own their businesses, indicating potentially higher financial knowledge that can positively impact their children's development. The second most referenced occupation is in the financial sector (18.4%), further highlighting the potential positive influence on children's financial literacy in the Western Suburbs. This suggests an important area of exploration in the study of parental influence on youth financial literacy development.

4. What is the Approximate Annual Household Income?
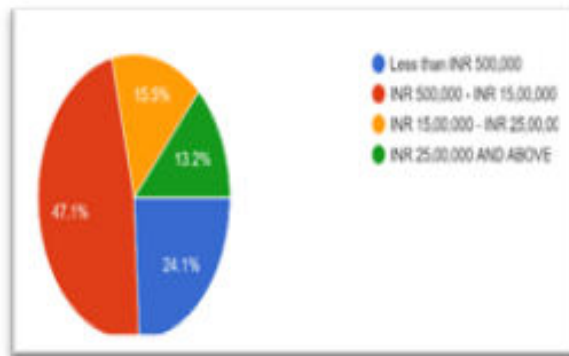
Interpretation- Household incomes in the study varied- 47.1%: 500,000 to 1,500,000 INR, 15.5%: 1,500,000 to 2,500,000 INR, 13.2%: above 25,000,000 INR, 24.1%: less than 500,000 INR. These income ranges reflect the diversity of financial backgrounds influencing youth financial literacy in the Western Suburbs.

5. Growing up, how often did your parents discuss finances with you?
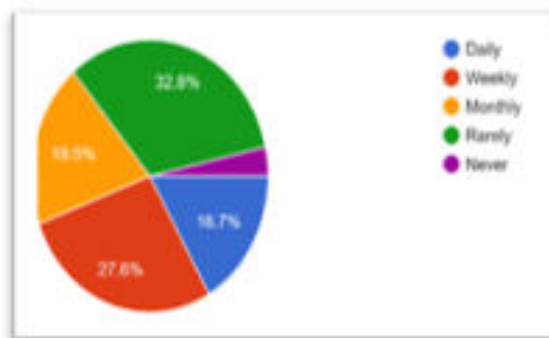
Interpretation- 32.8% rarely discuss finances and 3.8% do not discuss at all is a concern. Here, Rare discussions and no discussions at all on finances may indicate limited exposure to financial concepts and missed opportunities for practical learning for youth. Whereas 27.6% discuss weekly basis.

6. Did your parents involve you in the financial decisions at home?
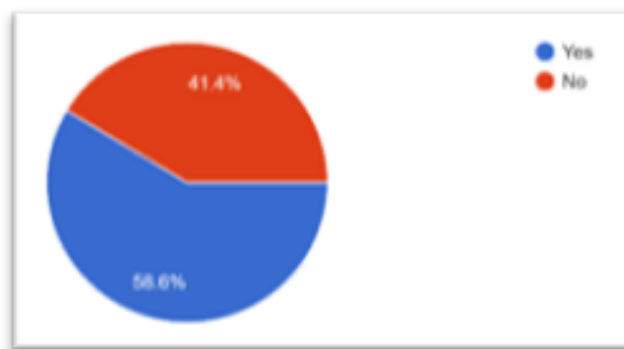
Interpretation- Highlighting a majority of youths having some level of involvement in household financial matters with approx. 59% is a good indication.

ANALYSIS

Null Hypothesis (H0): Parents did not involve their children in the financial decisions at home.

Alternate Hypothesis (H1): Parents did involve their children in the financial decisions at home.

	statistic	N	df	p	mean	median	SD	SE
Students' 't' statistic	42.4	174	173	<.001	1.59	2	0.494	0.0374

since the P value is smaller than 0.001we reject the null hypothesis and accept the alternate hypothesis. The mean of 1.59 suggests that parents did involve their parents in financial decisions at home.

7. What financial activities do your parents involve you in as a child? (tick as many as applicable)
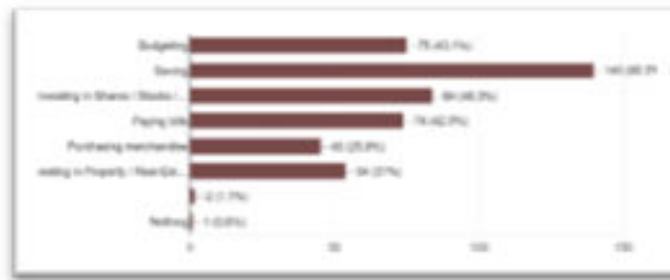
Interpretation- In financial activities where saving plays a major role, 140 are involved out of 174 being the highest, purchasing merchandise where 45 are involved out of 174, being the lowest.

8. How did your parents encourage you to be financially responsible? (tick as many as applicable)
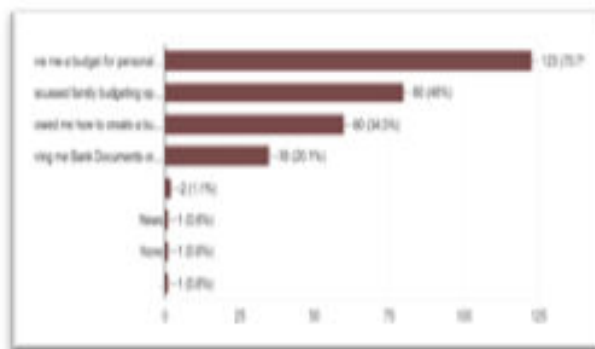
Interpretation-62.1% of children were encouraged to work and earn money which will help them to be financially independent, aware, and responsible. 97 students out of 174(55.7%) were taught how to set financial goals. Many parents discuss family budgeting also to get practical exposure to budgeting.

9. Do you have a budget for your personal expenses? or do you get Pocket Money?
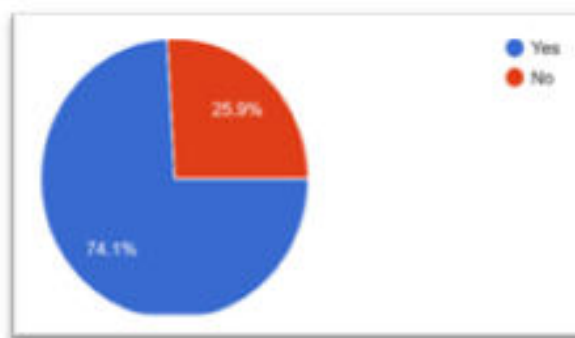
Interpretation- A budget for personal expenses or pocket money should be given by parents so that they can learn to manage their finances. 74.1% of the children get their personal expenses or pocket money to manage their finances.

ANALYSIS

Null Hypothesis (H0): The individual does not have a budget for personal expenses and does not receive pocket money.

Alternative Hypothesis (H1): The individual either has a budget for personal expenses or receives pocket money.

	statistic	N	df	p	mean	median	SD	SE
Students' 't' statistic	52.3	174	173	<.001	1.74	2	0.439	0.0333

since the P value is smaller than 0.001we reject the null hypothesis and accept the alternate hypothesis. The mean of 1.74 suggests that the individuals are given their personal expenses or pocket money.

10.What are the most effective ways for parents to communicate financial concepts to children?
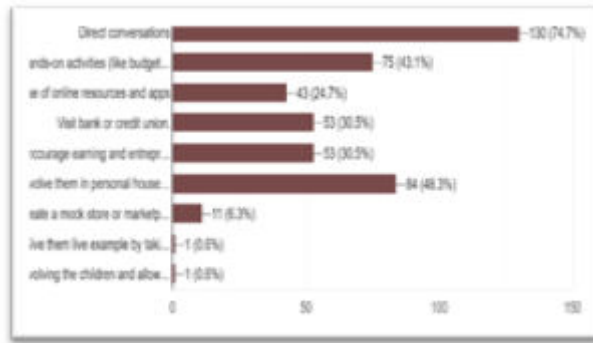
Interpretation- direct conversations need to be done with the children because it is a more effective way, 130/174 children believe the same Various activities like budgeting, saving, and investing need to be done by them. Visit banks, learn from online resources, etc.

11. Children tend to mirror their parents' financial habits. Your viewpoints?
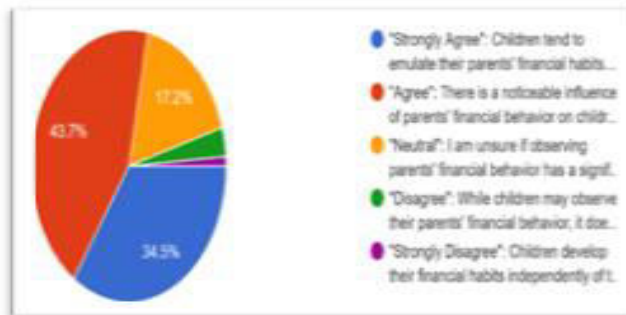
Interpretation- 34.5% of children strongly agree that Children tend to emulate their parents' financial habits closely, shaping their behaviors accordingly, 43.7% agree that There is a noticeable influence of parents' financial behavior on children's habits, although it may not be as pronounced. The rest percentage of the responses might be calculated as neutral or disagreeable.

ANALYSIS

Null Hypothesis (H0): There is no significant relationship between parents' financial habits and their children's financial habits.

Alternate Hypothesis (H1): There is a significant relationship between parents' financial habits and their children's financial habits.

	statistic	N	df	p	mean	median	SD	SE
Students 't' statistic	61.6	174	173	<.001	4.07	4	0.871	0.0066

since the P value is smaller than 0.001, we reject the null hypothesis and accept the alternate hypothesis. The mean of 4.07 suggests that the children strongly agree that they tend to mirror the financial habits of their parents.

12. In what ways did your parents/guardians introduce financial concepts to you?
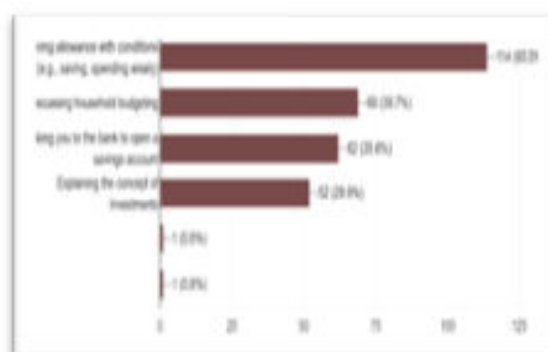
Interpretation- 114/174 were given allowances of savings, budgeting, etc. 69/174 discussed household budgeting with parents. 62/174 were taken to the bank to open a savings account. 52/174 explaining the concept of investment.

13. How important do you think it is for parents/guardians to teach financial literacy to their children?
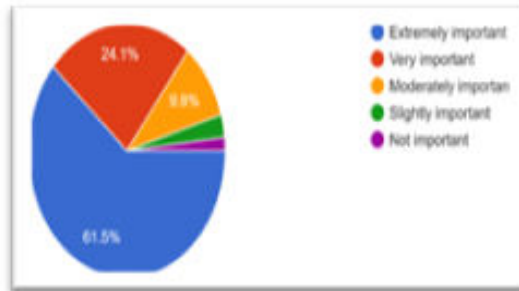
Interpretation- 61.5% of children agree it is extremely important, whereas 24.1% agree as very important 9.8% as moderately important, 2.9% as slightly important, and 1.7% as not important.

14. To what extent do the literacy levels of parents in the western suburbs influence the financial literacy development of their children and youth?
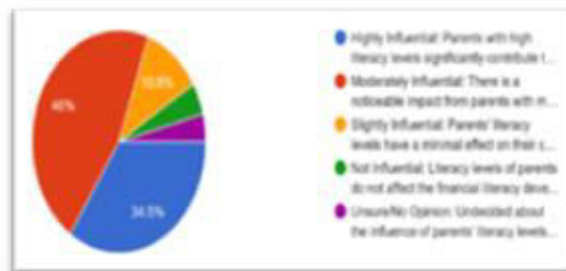
Interpretation- It is interpreted that 34.5% feel that parents with high literacy levels significantly contribute to the development of their children. Whereas 46% feel there can be a noticeable impact with moderate literacy.

15. Should parents openly discuss family financial matters with their children?
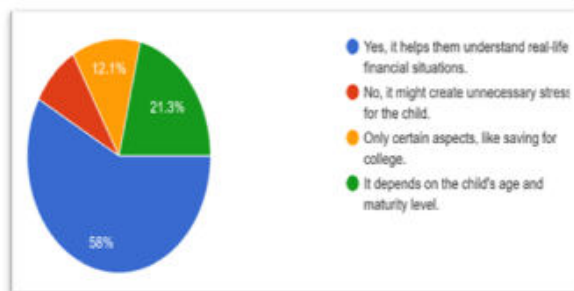
Interpretation- 58% of children think families should discuss family matters as it helps to understand real-life financial situations and problems. Whereas 21.3% think it depends on age and maturity level.

16. Should parents encourage children to start their small businesses?
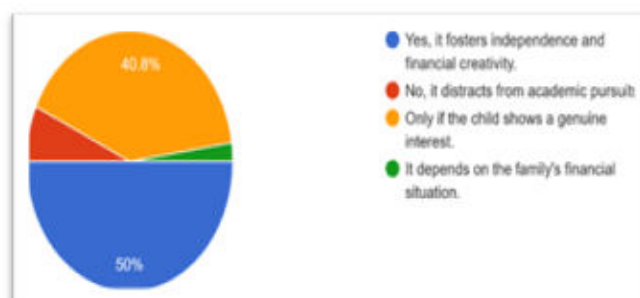
Interpretation- 40.8% of the children think only if a child shows genuine interest, and 50% yes because it fosters independence and financial creativity. 6.9% think that it distracts from academic pursuit. 2.3% think it depends on the family's financial situation

CONCLUSION

This study sheds light on the significant impact of parental influence on the financial literacy development of children and youth in the Western Suburbs. Through a comprehensive analysis of various factors, several key findings have emerged, which carry important implications for both parents and policymakers alike. Firstly, students try to mimic their parent's behaviour, thus almost 50-55% of the sample agrees that they mimic their parent's behaviour. Secondly, how the students get influenced by their parents is also being accessed and according to the study, parents influence students in high percentage. With 47.1% of families falling within the middle-class socio-economic bracket, there emerges a notable emphasis on the role of parents in fostering financial development among children. Involving youth in household budgeting, engaging them in direct conversations about finances, and integrating them into discussions on personal household budgets, savings, and investment planning have emerged as vital components. Additionally, a significant 50% of parents actively encourage their children to seek work opportunities, aiming to impart firsthand understanding of the importance of financial independence and the nuances of financial management. This collaborative approach within households not only cultivates financial literacy but also instills a practical understanding of financial responsibilities, ensuring a solid foundation for the youth's financial future.

FINDINGS

1. In the Western Suburbs, parents' financial practices and behaviours have a big influence on how financially literate their kids become. Youngsters often emulate the financial behaviours they witness in their homes.

2. Children raised by parents who actively involve them in budgeting, savings, and money management typically grow up to be more financially literate.

3. A child's grasp of finance is significantly influenced by the degree of parental involvement in teaching financial skills, such as opening a bank account, comprehending credit cards, and making frugal spending decisions.

4. Regular allowances and possibilities for earnings through chores or part-time work are two ways that parents can help their kids build their financial literacy.

5. The degree of financial literacy possessed by parents is a critical factor that influences their capacity to instruct and mentor their offspring regarding financial matters. Offspring of financially literate parents are more likely to be financially literate themselves.

6. The financial literacy of children can also be influenced by parents' socioeconomic situation. Greater access to resources and higher incomes may present more opportunity for families to teach their kids about money, whereas lower income families may find it more difficult to do so.

REFERENCES

1. Fernandes, D., Lynch Jr, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. Management Science, 60(8), 1861-1883.

2. Furnham, A., & Cheng, H. (2000). Perceived parental behavior, self-esteem and happiness. Social Psychiatry and Psychiatric Epidemiology, 35(10), 463-470.

3. Gudmunson, C. G., Beutler, I. F., & Danes, S. M. (2009). Family financial socialization: Theory and critical review. Journal of Family and Economic Issues, 30(4), 284-296.

4. Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. (2003). Household financial management: The connection between knowledge and behavior. Federal Reserve Bulletin, 89, 309-322.

5. Lusardi, A., & Mitchell, O. S. (2006). Financial literacy and planning: Implications for retirement wellbeing. Pension Research Council Working Paper, (2006-01).

6. Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and over indebtedness. Journal of Pension Economics & Finance, 14(4), 332-368.

7. Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. Journal of Applied Developmental Psychology, 30(6), 708-723.

BIBLIOGRAPHY

1. https://www.researchgate.net/publication/265315056_Parental_Influences_on_the_Financial_Literacy_of_Adolescents

2. https://www.researchgate.net/publication/258810881_The_Role_of_Parents_in_Shaping_Youth_Financial_Behavior_Evidence_from_Japan

3. https://www.nefe.org/research/research-projects/completed-research/2022/UAZ-Report-Parent-Financial-Socialization-Scale.pdf

4. https://www.researchgate.net/publication/281971182_Parental_Influence_on_the_Financial_Literacy_of_Adolescents_Evidence_from_Thailand

5. https://www.researchgate.net/publication/266384292_Financial_Literacy_of_Youth_The_Role_of_Parental_Influence

THE INFLUENCE OF SOCIAL MEDIA ON WEDDING EXPENDITURE PATTERNS AND SOCIAL STATUS SIGNALING IN INDIAN COMMUNITIES

Dr. Naresh Sukhani[1] and Hetvi Gandhi[2]

[1]Professor, BMS Department and [2]SYBMS (Management Studies), Usha Pravin Gandhi College of Arts, Science & Commerce, Mumbai

nareshsukhani@gmail.com[1] and hetvig04@gmail.com[2]

ABSTRACT

This study delves into the intricate dynamics of wedding spending within Indian communities, examining the profound impact of social media platforms on shaping perceptions, aspirations, and behaviors related to matrimonial celebrations. With a focus on the amplification of desires for extravagant weddings and the pressure to showcase wealth and status, this research employs qualitative and quantitative methodologies to dissect the multifaceted influences of social media on wedding expenditure patterns. By unraveling the interplay between digital platforms, societal norms, and individual motivations, this study aims to offer valuable insights into the evolving landscape of wedding culture in Indian society and inform strategies for navigating the complexities of nuptial planning in the digital age.

INTRODUCTION

The evolving landscape of social media has significantly influenced consumer behaviors, including those related to wedding spending, within Indian communities. As social media platforms become integral parts of daily life, they play a crucial role in shaping individuals' desires, preferences, and aspirations, particularly regarding weddings. This research seeks to explore how social media platforms amplify the desires for extravagant weddings and create pressure to showcase wealth and status within Indian communities. To achieve this, the study will investigate the interactions between social media usage and wedding spending behaviors, aiming to understand the motivational factors driving individuals' decisions to spend extravagantly on weddings. The research methodology will involve empirical investigation through surveys administered to individuals within Indian communities, focusing on their perceptions, attitudes, and behaviors related to wedding expenditures. The research objectives include exploring the shopping habits influenced by social media, examining the role of peer influence and online reviews, assessing perceptions of brand loyalty and trust, and analyzing the impact of advertising and promotions on wedding spending decisions. Through comprehensive analysis, this study aims to provide valuable insights into the complex interplay between social media and wedding spending behaviors within Indian communities, offering implications for marketers and individuals navigating the intricacies of wedding planning in contemporary society.

RESEARCH METHODOLOGY

The research will adopt a mixed-methods approach, incorporating both qualitative and quantitative techniques to comprehensively investigate the impact of social media on wedding spending within Indian communities.

1. **Data Collection:** The primary method of data collection will be surveys administered to individuals within Indian communities aged 18-35 years. The survey will be designed to gather information on social media usage, wedding spending behaviors, perceptions, and attitudes towards extravagant weddings.

2. **Sampling Technique:** A stratified random sampling method will be employed to ensure representation from different demographics within Indian communities. Stratification will be based on factors such as age, gender, income, and geographical location.

3. **Survey Design:** The survey will be designed using Google Forms or similar online survey platforms to facilitate data collection. It will include both closed-ended and open-ended questions to gather quantitative and qualitative data, respectively.

4. **Data Analysis:** Quantitative data will be analyzed using statistical methods such as descriptive statistics, correlation analysis, and regression analysis. Qualitative data from open-ended questions will be analyzed thematically to identify recurring patterns and themes.

5. **Ethical Considerations:** Ethical guidelines regarding participant confidentiality, informed consent, and data protection will be strictly adhered to throughout the research process.

RESEARCH OBJECTIVES

1. To examine the influence of social media on perceptions of wedding spending within Indian communities.

2. To explore the motivational factors driving individuals to spend extravagantly on weddings.

3. To assess the role of peer influence and online reviews in shaping attitudes towards extravagant weddings.

4. To analyze the impact of social media advertising and promotions on wedding spending decisions within Indian communities.

REVIEW OF LITERATURE
Social media has become an integral part of modern life, significantly influencing consumer behaviors across various domains, including wedding spending. Previous research has highlighted the profound impact of social media platforms on individuals' attitudes, perceptions, and behaviors related to weddings.

Influence of Social Media on Wedding Spending:

Studies have demonstrated the influential role of social media in shaping wedding spending patterns. Social media platforms serve as powerful channels for showcasing wedding-related content, including extravagant ceremonies, luxurious venues, and designer attire, thereby fueling desires for elaborate and extravagant weddings (Davies & O'Brien, 2020). The visual nature of platforms like Instagram and Pinterest encourages individuals to aspire to idealized wedding standards depicted in curated images and posts (Kern et al., 2018).

Motivational Factors Driving Wedding Spending:
- Various motivational factors underpin individuals' decisions to spend lavishly on weddings, many of which are amplified by social media. Social comparison, status-seeking behavior, and aspirations for a lavish lifestyle drive individuals to invest substantial financial resources in their wedding celebrations (Ting & Cheng, 2019). The desire for social validation and the pursuit of perfection, often perpetuated by social media portrayals of flawless weddings, further contribute to inflated wedding spending (Choi & Lee, 2020).

Role of Peer Influence and Online Reviews:
- Peer influence and online reviews exert significant influence on individuals' wedding spending decisions in the digital age. Social media platforms facilitate peer-to-peer interactions, allowing individuals to seek recommendations, share experiences, and compare wedding plans with others (Bridges & Chitty, 2018). Positive reviews and testimonials shared by peers on social media platforms influence perceptions of wedding-related products and services, guiding individuals' purchasing decisions and vendor selections (Yao et al., 2019).

Impact of Social Media Advertising and Promotions:
- Social media advertising and promotions play a pivotal role in shaping individuals' perceptions and behaviors related to wedding spending. Sponsored content, influencer endorsements, and targeted advertising campaigns on platforms like Facebook and Instagram influence individuals' preferences, perceptions of brands, and purchase decisions regarding wedding-related products and services (Kim & Park, 2019). Personalized ads tailored to users' demographics, interests, and browsing behavior enhance the visibility of wedding-related offerings, driving engagement and purchase intent (Yim et al., 2020).

In summary, social media exerts a profound influence on wedding spending behaviors, shaping individuals' perceptions, aspirations, and purchase decisions in the context of wedding planning. Understanding the motivational factors, peer dynamics, and advertising influences at play in the realm of social media can provide valuable insights for wedding industry professionals, marketers, and consumers alike.

RESEARCH VARIABLES
The research variables can be categorized into independent, dependent, and control variables. Here's a breakdown of these variables:

Independent Variables (Social Media Influence):
a. **Frequency of Social Media Use:** The frequency with which individuals engage with social media platforms, including Instagram, Facebook, Pinterest, and others, to explore wedding-related content.

b. **Type of Social Media Engagement:** The nature of engagement with wedding-related content on social media, such as browsing through images, following wedding influencers, or actively participating in wedding-related discussions.

c. **Perception of Social Media Content:** Individuals' perceptions of wedding-related content on social media, including the perceived realism, desirability, and aspirational value of extravagant weddings portrayed on these platforms.

d. **Influence of Peer Networks:** The impact of peer networks and social circles on individuals' exposure to and engagement with wedding-related content on social media.

Dependent Variables (Wedding Spending and Status Signaling):a. Wedding Expenditure: The amount of money spent on various aspects of wedding planning and execution, including venue, catering, attire, decorations, and entertainment.

b. **Perceived Status and Prestige:** Individuals' perceptions of their social status and prestige within their communities, as influenced by the scale, grandeur, and extravagance of their wedding celebrations.

c. **Social Comparison and Conformity:** The extent to which individuals compare their wedding plans and spending decisions with those of others on social media platforms, and the pressure to conform to societal norms and expectations regarding wedding expenditure.

Control Variables:

a. **Demographic Variables:** Age, gender, marital status, income level, and educational attainment of individuals planning or participating in weddings.

b. **Cultural and Societal Norms:** Cultural values, traditions, and societal expectations regarding weddings within Indian communities, including the significance of rituals, ceremonies, and symbolic gestures.

c. **Family and Peer Influences:** The influence of family members, relatives, and close friends on individuals' wedding planning decisions, including their preferences, preferences, and financial contributions.

d. **Geographic Location:** Variations in wedding spending patterns and social norms across different regions, cities, or states within India.

By examining the relationships between these variables, researchers can gain insights into the mechanisms through which social media platforms influence wedding spending behaviors and status signaling within Indian communities.

DATA ANALYSIS AND INTERPRETATION

1. GENDER
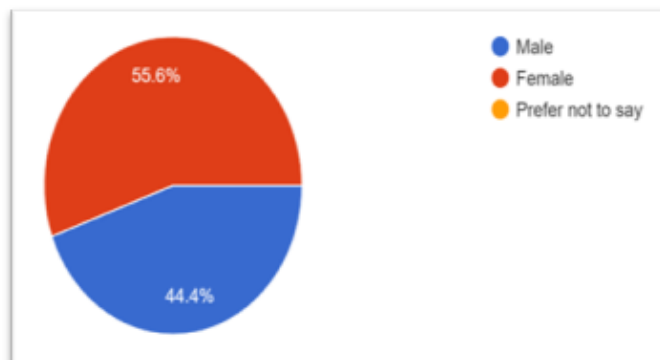
Interpretation: Around 55.6% of the population from the respondents are females and 44.4% are Male.

2. AGE
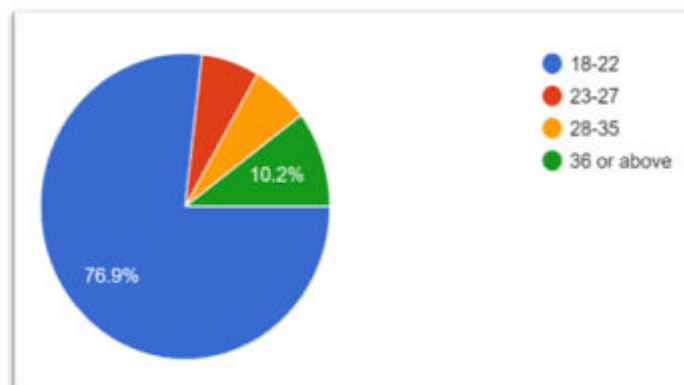
Interpretation: Maximum Respondents (around 76.9%) are Undergraduate Students from the age group of 18-22 who are exposed to Content over social media and other mediums. The second largest segment of respondents are from the age group of 36 or above.

3. REGION
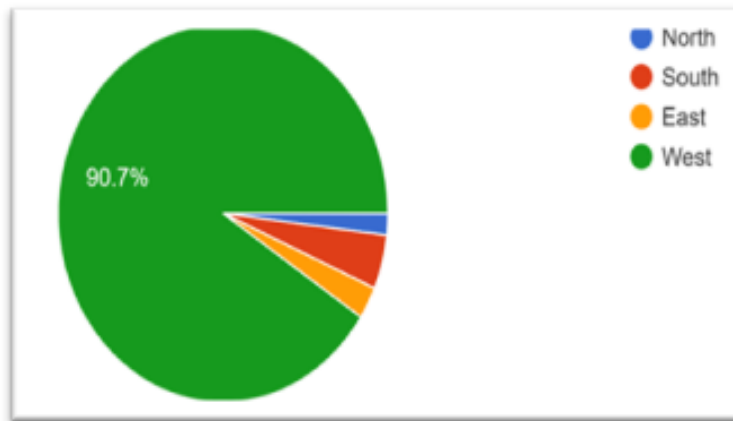
Interpretation: Maximum respondents (90.7%) are from the western region of India largely from Mumbai. There are smaller section of people belonging to other regions of India.

4. FREQUENCY OF SOCIAL MEDIA USAGE
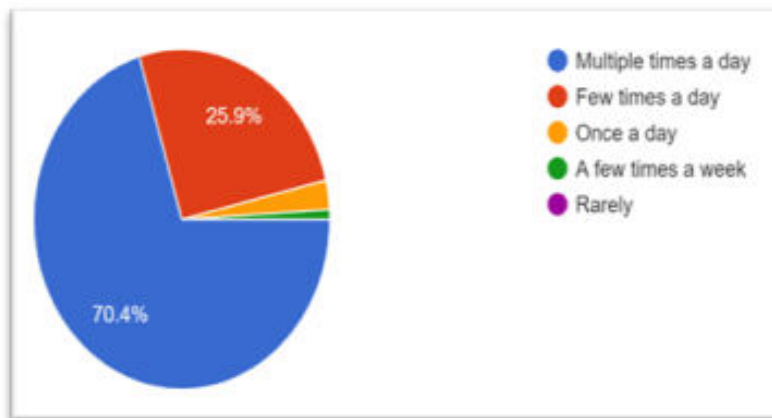
Interpretation: Majority respondents (70.4%) use various social media platforms multiple times a day. The second largest amount of respondents (25.9%) use social media few times a day.

5. MOST FREQUENTLY USED SOCIAL MEDIA PLATFORMS
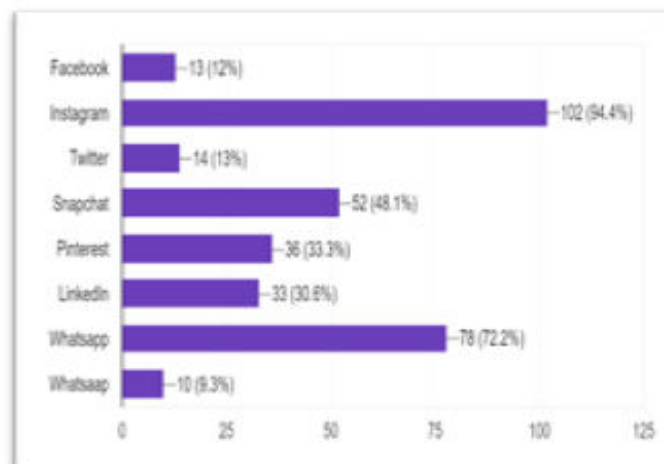
Interpretation: A great number of respondents use Instagram(94.4%) and Whatsapp(72.2%). A large of respondents also use Snapchat (48.1%), Pinterest (33.3%), LinkedIn (30.6%).

6. ENGAGEMENT OF WEDDING RELATED CONTENT ON SOCIAL MEDIA
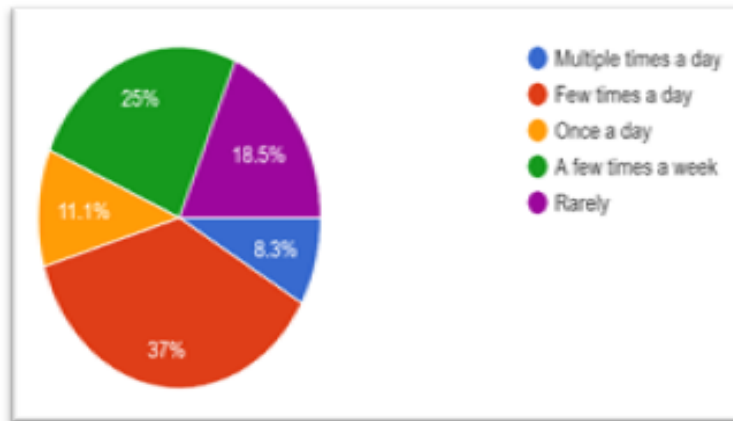
Interpretation: More than one third (37%) of the respondents engage a few times a day with wedding related content on various social media content. One fourth (25%) of the respondents come across wedding related content a few times a week.

7. FOLLOWING ACCOUNTS/PAGES SHOWCASING EXTRAVAGANT WEDDINGS
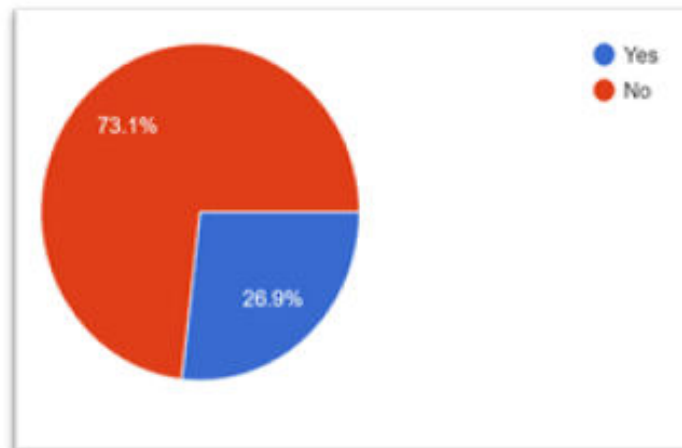
Interpretation: Maximum respondents (73.1%) do not follow any accounts/ pages on any social media platforms showcasing extravagant or lavish weddings. Only a limited number of respondents follow such accounts.

8. PRESSURE TO SPEND MORE ON WEDDING DUE TO SOCIAL MEDIA CONTENT
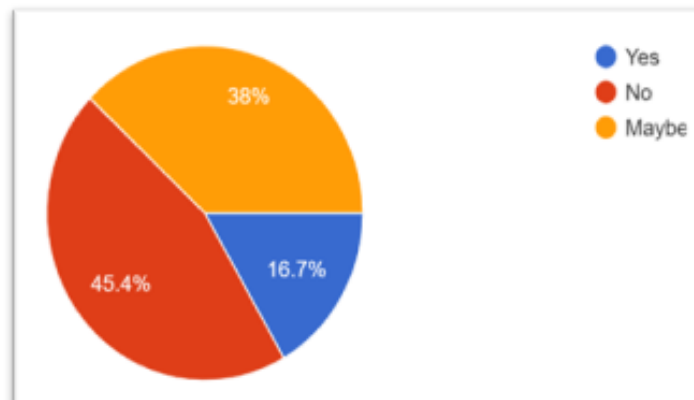
Interpretation: Majority (45.4%) of the respondents do not feel pressurized to spend more on their weddings due to social media content they consume. Whereas, 38% of the respondents are not sure if they are willing to spend on lavish weddings under pressure or naturally.

9. REACTION TO EXTRAVAGANT WEDDING POSTS ON SOCIAL MEDIA
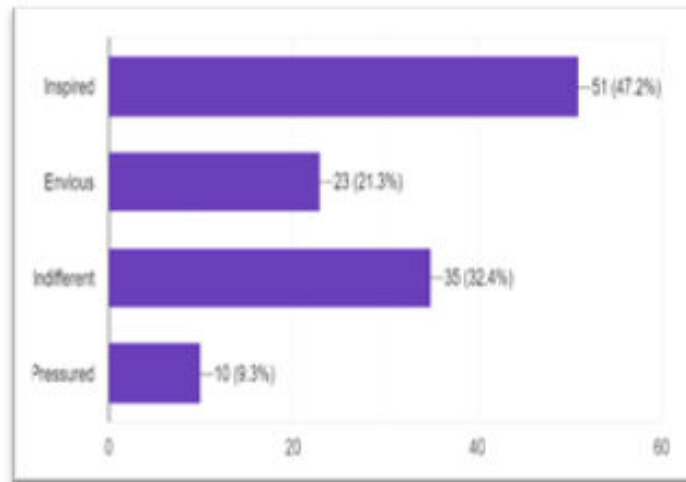
Interpretation: Maximum respondents (47.2%) feel inspired to do such lavish weddings after seeing wedding related content on social media. The second largest portion (32.4%) of respondents feel indifferent after consuming such content on social media.

10. COMPARISON OF WEDDING PLANS TO THOSE SEEN ON SOCIAL MEDIA
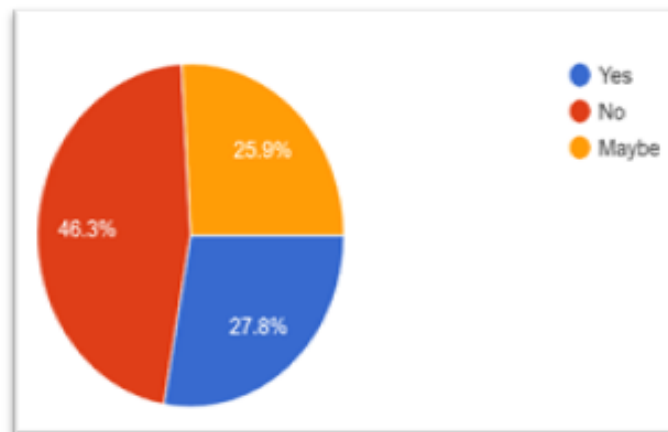
Interpretation: Majority of the answerers (46.3%) do not compare their wedding plans to those seen on social media. While 27.8% of the respondents do compare their weddings with extravagant weddings seen on various social media platforms.

11. INFLUENCE OF SOCIAL MEDIA ON PERCEPTIONS OF "DREAM WEDDING"
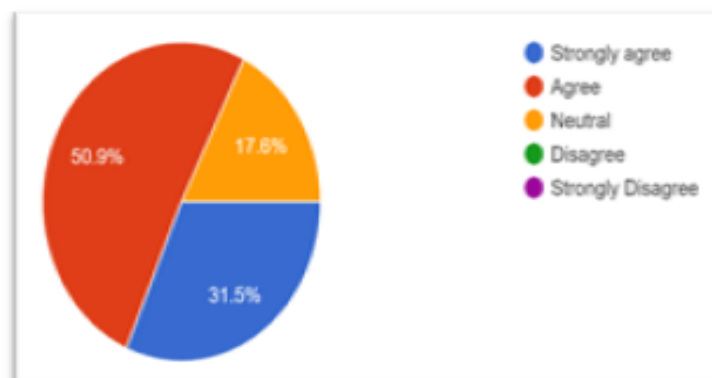
Interpretation: More than half of the respondents (50.9%) agree with the fact that social media highly influences their perception of Dream Wedding. The second largest part of the respondents (31.5%) strongly agree with this fact.

12. IMPACT OF SOCIAL MEDIA ON WEDDING PLANNING AND SPENDING HABITS IN INDIA
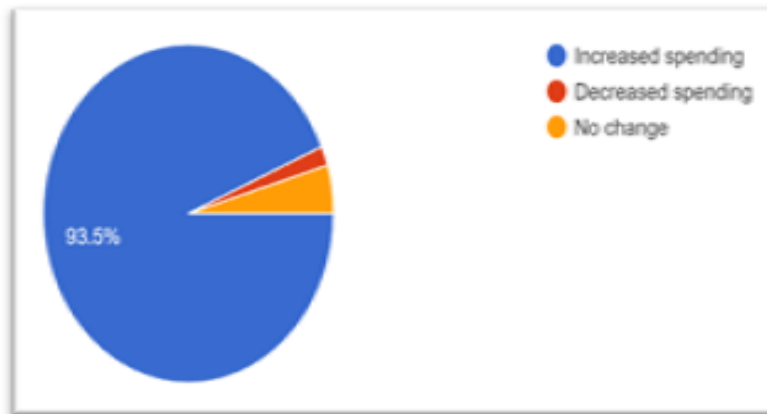
Interpretation: Maximum amount of people (93.5%) who responded feel that social media has strongly influenced their wedding planning and spending and expectations.

13. COMPETITIVENESS OF WEDDINGS IN TERMS OF EXTRAVAGANCE AND SPENDING DUE TO SOCIAL MEDIA
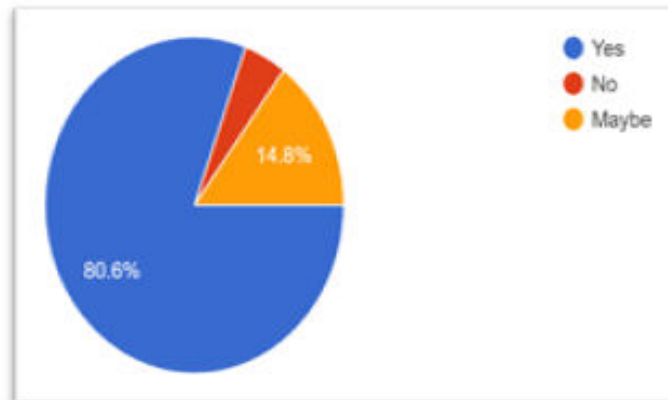
Interpretation: Maximum number of respondents (80.6%) feel that there is now a sense of competition in the weddings in terms of extravagance and spending due to social media.

14. WEDDING-RELATED PURCHASES MADE BASED ON SOCIAL MEDIA CONTENT
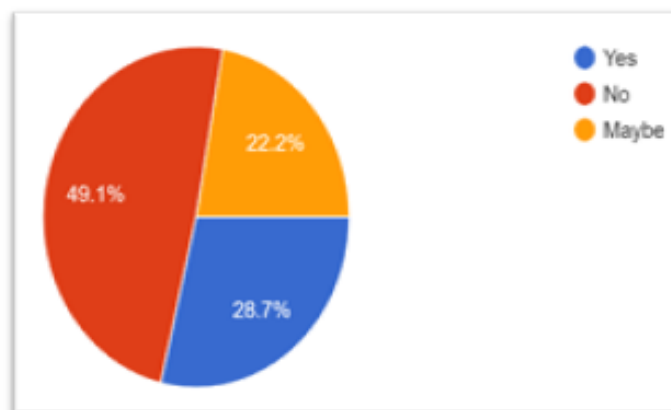
Interpretation: Highest number of respondents (49.1%) think that they aren't influenced to buy anything related to wedding based on the social media content they view. On contrary 28.7% of the respondents feel that their purchase is influenced by social media.

15. CREATION OF UNREALISTIC EXPECTATIONS FOR WEDDINGS BY SOCIAL MEDIA
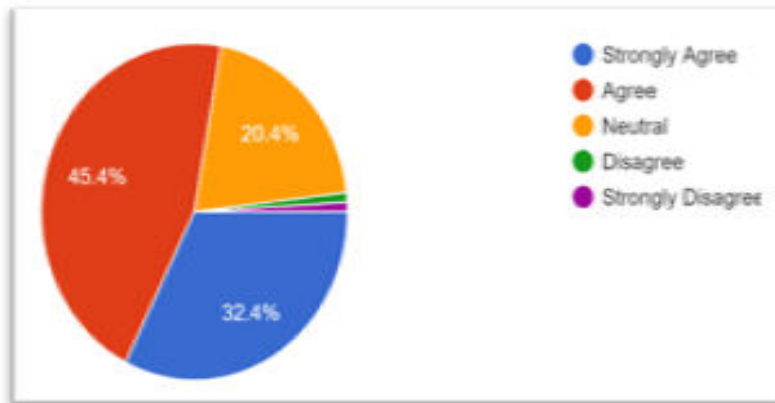
Interpretation: A total of 77.8% of the respondents feel there is an unrealist expectation created in the unmarried people to go ahead with such lavish weddings influenced by social media.

16. ENCOUNTERING SPONSORED POSTS OR ADVERTISEMENTS FOR WEDDING-RELATED PRODUCTS OR SERVICES ON SOCIAL MEDIA
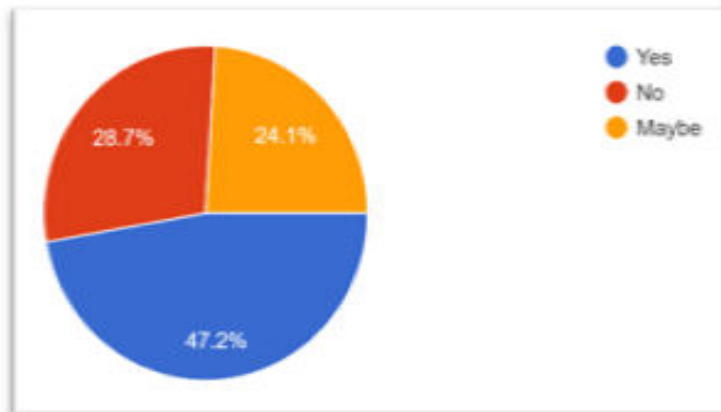
Interpretation: A large wedding industry exists from where numerous people earns a lot and selling extravagant weddings need promotion. 47.2% of the respondents have encountered sponsored post & advertisements related to weddings.

17. INFLUENCE OF SOCIAL MEDIA ON THE WEDDING PHOTOGRAPHY AND VIDEOGRAPHY INDUSTRY
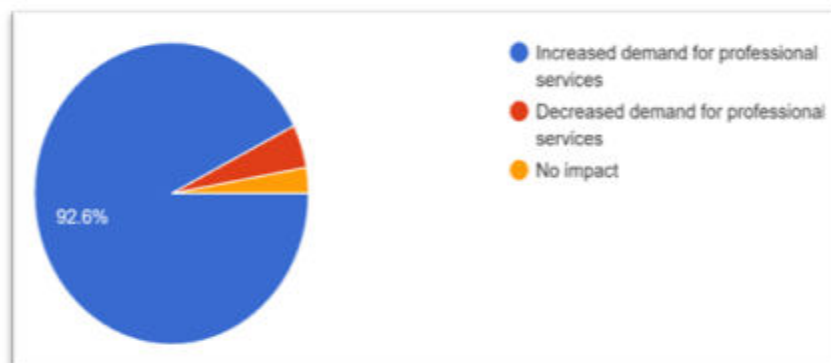
Interpretation: Wedding photographers and videographers are the only source to capture and then showcase their extravagant weddings on social media. Hence 92.6% of the answerers feel that there is a significant rise in the demand of professional service of capturing moments.

18. IMPACT OF SOCIAL MEDIA ON THE RISE OF DESTINATION WEDDINGS IN INDIA
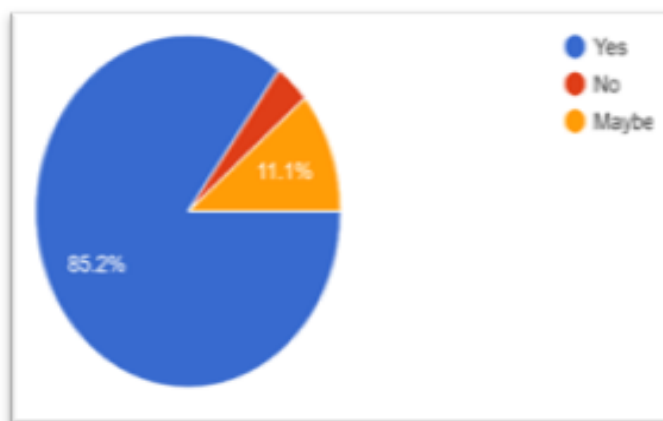
Interpretation: Majority of the respondents (85.2%) see that there is a significant rise of destination weddings in India. The reason being that destination weddings shows more extravagance and increases the social status of the family.

19. CHANGES IN COUPLES' COMMUNICATION AND NEGOTIATION ABOUT WEDDING SPENDING DUE TO SOCIAL MEDIA
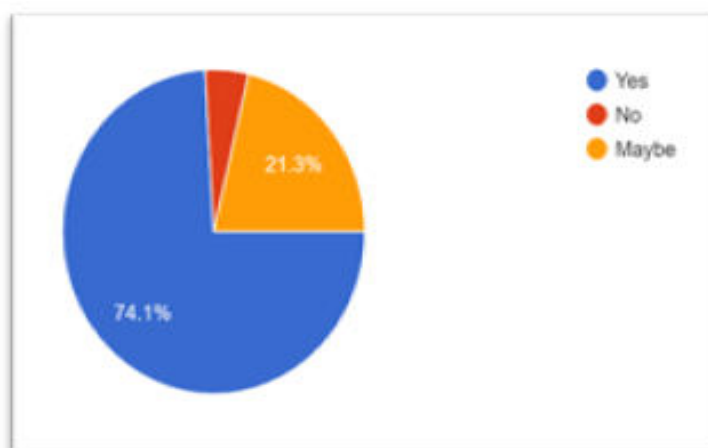
Interpretation: Different couple have different sort of priorities in their wedding budget influenced by a lot of factors. But recently there is a significant change in how couples negotiate about wedding spending due to social media. 74.1% is a good indicator supporting this fact

20. EFFECT OF SOCIAL MEDIA ON THE EMOTIONAL EXPERIENCE OF PLANNING AND ATTENDING WEDDINGS
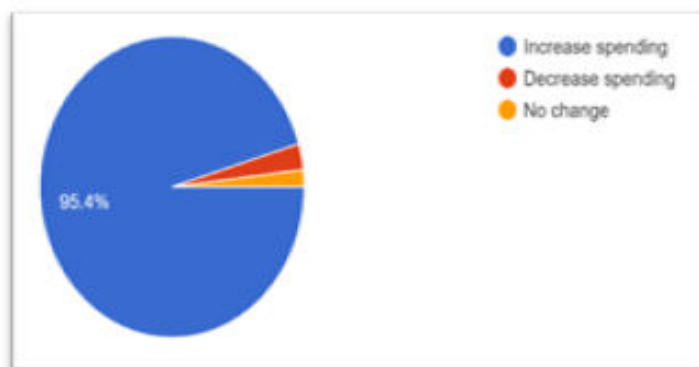
Interpretation: 95.4% of the respondents foresight that there will be a noticeable increase in spending habits of the people getting married in the future. This will happen due to influence of the extravagance showcased on the social media.

21. FUTURE INFLUENCE OF SOCIAL MEDIA ON WEDDING TRENDS AND SPENDING HABITS
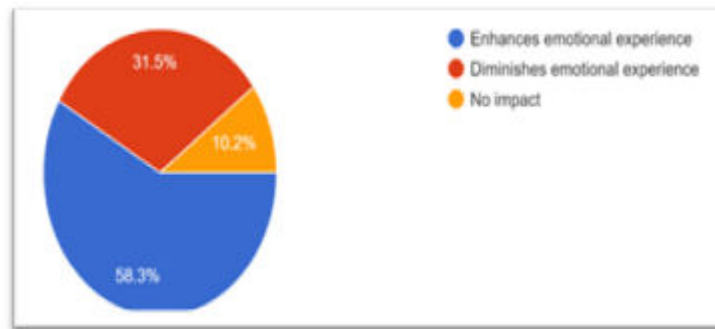
Interpretation: Maximum respondents (58.3%) have observed that there is an increase in the emotional experience of the couple and the guests attending the wedding due to social media.

CONCLUSION

In conclusion, this study elucidates the profound influence of social media on wedding expenditure patterns and status signaling in Indian communities. It reveals how digital platforms amplify desires for opulent weddings, fostering a culture of competition and heightened expectations. Social comparison, peer influence, and targeted advertising play pivotal roles in shaping individuals' wedding spending decisions, often leading to increased pressure to conform to idealized standards portrayed online. The rise of destination weddings and the surge in demand for professional wedding services further underscore the transformative impact of social media on wedding trends and industry dynamics.

Overall, this research provides invaluable insights into the evolving landscape of wedding culture in contemporary Indian society. By understanding the complex interplay between social media usage and wedding expenditures, stakeholders can adapt their strategies to better meet the evolving needs and preferences of consumers. Navigating the digital age of nuptial planning requires a nuanced understanding of societal norms and individual motivations, enabling the enhancement of the wedding experience for all involved parties.

FINDINGS

➢ Majority of respondents use social media platforms multiple times a day, with Instagram and WhatsApp being the most frequently used platforms.

➢ Engagement with wedding-related content on social media varies, with a significant portion not following accounts/pages showcasing extravagant weddings.

➢ A considerable proportion of respondents feel inspired to have lavish weddings after seeing extravagant wedding-related content on social media.

➢ While a majority do not compare their wedding plans to those seen on social media, a significant portion engages in such comparisons.

➢ More than half of the respondents agree that social media highly influences their perception of a dream wedding.

➢ The vast majority of respondents feel that social media strongly influences their wedding planning and spending expectations.

➢ Many respondents perceive a sense of competition in weddings in terms of extravagance and spending due to social media, along with the creation of unrealistic expectations.

➢ Respondents overwhelmingly anticipate an increase in spending habits for future weddings due to social media influence.

➢ A significant number of respondents have observed an increase in the emotional experience of couples and guests attending weddings due to social media.

REFRENCES
1. Bridges, S., & Chitty, B. (2018). The impact of social media on wedding planning: A case study of Maidstone, Kent. In Proceedings of the International Conference on Computer-Human Interaction Research and Applications (pp. 98-104).

2. Choi, J., & Lee, H. A. (2020). The impact of social media on wedding-related consumption behaviors: A structural equation modeling approach. Journal of Retailing and Consumer Services, 53, 101979.

3. Davies, A., & O'Brien, D. (2020). The impact of social media on wedding planning: A case study of Instagram. Journal of Marketing Communications, 26(4), 420-437.

4. Kern, M., Jackson, R., Calasanti, T., & Weitz, R. (2018). Wedding planning, stress, and social media: A study of engaged couples. Journal of Tourism and Cultural Change, 16(3), 264-280.

5. Kim, Y., & Park, Y. (2019). How does social media influence the decision-making process of couples planning a wedding? The role of social comparison and information adoption. International Journal of Hospitality Management, 77, 371-381.

6. Ting, K. H., & Cheng, B. L. (2019). The influence of social media on luxury consumption: A comparison between the United States and China. Journal of Business Research, 98, 472-478.

7. Yao, R., Wu, S., Hu, C., & Wang, M. (2019). Social commerce research: Definition, research themes, and the trends. Information Processing & Management, 56(1), 120-136.

8. Yim, M. S., Seock, Y. K., & Jung, H. S. (2020). The effect of personalized advertising on consumer responses: The moderating role of individual characteristics. International Journal of Advertising, 39(2), 191-212.

BIBLOGRAPHY

1. https://www.jstor.org/stable/48665172

2. https://www.ijrbs.com/wp-content/uploads/2022/06/5%20Arun%20Kumar%20&%20Mahevash%20Mashooq.pdf

3. https://onlinelibrary.wiley.com/doi/full/10.1111/ijcs.12852

4. https://global-jws.com/ojs/index.php/global-jws/article/view/54

5. https://www.researchgate.net/publication/46552543_Wedding_Celebrations_as_Conspicuous_Consumption_Signaling_Social_Status_in_Rural_India

THE IMPACT OF SOCIAL MEDIA ON POLITICAL DISCOURSE AND VOTER BEHAVIOUR AMONG FIRST TIME VOTERS IN GENERATION Z

Dr. Naresh Sukhani[1] and Hetvi P. Karia[2]

[1]A. Professor, BMS Department and [2]SYBAMMC Research Student, Usha Pravin Gandhi College of Arts, Science and Commerce

[1]nareshsukhani@gmail.com and [2]hetvikaria04@gmail.com

ABSTRACT

As India approaches national elections in just four months, the socio-political landscape is marked by heightened tensions surrounding the Ram Mandir and Babri Masjid issue, reaching its zenith with the imminent completion of the Ram Mandir construction. Communalism is rampant, posing a critical challenge to the democratic fabric of the nation. In this situation, the impact of social media on political discussions and voting patterns, particularly among first-time voters from Generation Z, emerges as a crucial subject for examination.

This study seeks to explore the intricacies of political involvement and decision-making among young people, highlighting the significant role that first-time voters will have in influencing the results of the forthcoming elections. Despite pressing concerns such as unemployment, GDP fluctuations, infrastructural development and Hunger Index, these essential issues seem to be overshadowed by the dominating discourse on religious and communal matters.

Social media, serving as a potent platform for spreading information and molding public opinion, holds considerable sway in directing political narratives. The paper explores the impact of digital platforms in amplifying political propaganda, often diverting attention from substantial issues to sensationalized topics. This study utilizes a mixed-methods approach, blending quantitative analysis of social media trends with surveys on voter behaviour. This methodology aims to offer a thorough comprehension of the complex relationship between digital communication and political decision-making.

The results of this study will enhance our understanding of how social media shapes the political landscape, particularly concerning upcoming national elections. Ultimately, this research contributes to the broader understanding of the interplay between social media, political discourse, and voting behaviours in the Indian context, offering practical implications for enhancing democratic participation and informed decision-making among Generation Z.

Keywords: Generation Z Voters, Social Media, Political Discourse, National Elections, Decision-making, Political Engagement, India, Socio-political landscape, Political Efficacy, Digital Literacy, Information dissemination, Public opinion shaping, Voter behaviour, Political propaganda, Sensationalized topics

INTRODUCTION

The internet as we know it today indeed has its roots over five decades ago. The most significant change since the Industrial Revolution is the rise of social media (Eric Qualman, 2012). The internet has revolutionized various aspects of our lives and has become deeply ingrained in every facet of society. Conventional modes of communication such as radio, telephone, newspapers, and mail have been redefined, reshaped, or even bypassed by the advent of the internet. The internet has facilitated global connectivity, enabling individuals worldwide to stay digitally linked. Furthermore, a considerable amount of people's time is spent engaging with friends, family, and colleagues on social media platforms. The widespread accessibility of the internet, particularly in semi-urban and rural areas of India, has been greatly accelerated by initiatives such as JIO, spearheaded by Mr. Mukesh Ambani.

After transforming many facets of our life, social media over the last decade became an important political tool. It has become a platform where individuals engage in discussions about politics, express their political beliefs, and even engage in virtual debates or conflicts over political matters. Social media has been instrumental in global politics, enabling social activism and internet-fueled revolutions in past years. The change of political fabric in the Arab world, the US Presidential campaign of Barack Obama in 2008, Black Lives Matter are popular examples of impact of social media in world politics. Shedding light on the political landscape of India, it is evident that Indians are consistently forthcoming in their discussions about politics, resulting in social media platforms becoming central hubs for political discourse. The 'Avaaz' initiative advocating for Anna Hazare's anti-corruption Lokpal Bill and the BJP's utilization of social media during the 2014 and 2019 central elections represent significant instances in Indian political landscape.

At first, political parties utilized the internet primarily as a one-way communication tool to disseminate information to the public via their websites. With the later emergence of social media and technology, communication patterns turned into a two-way path, making social media a more powerful political tool (Emruli & Bača, 2011). Political parties, elected officials, election commissions, policymakers, and various state governments frequently showcase their achievements and initiatives on social media platforms like Twitter, Facebook, and Instagram. Members of political parties and elected representatives frequently employ satire or deliver serious critiques aimed at opposing parties and their supporters. Even Prime Minister Narendra Modi's program 'Mann ki Baat', where he shares his thoughts on All India Radio and DD Channel, is streamed live on platforms such as YouTube and Facebook. Online activities related to politics are essential and act as a motivation for the younger generations to take part in political events (Quintelier & Vissers, 2008). The relationship between social media usage, political information and knowledge, and political participation holds significant importance in elections, particularly in developing nations like India.

Internet and social media have proven to be critical tools for propagating political information (McAllister, 2015). As mentioned earlier, social media stands as one of the primary sources of information for individuals. Nonetheless, it also harbors a considerable potential for spreading misinformation, propaganda, and manipulating public perspectives. Politics inherently revolves around power, and it is evident that individuals are often willing to go to great lengths to attain it. A recent surge in the proliferation of IT Cells, which operate under the guise of Pages, Groups, or Individual accounts, has been observed. These IT Cells, associated with various political parties, actively disseminate disinformation and propagate fake news online to sway public opinion in their favour. The widespread dissemination of fake news and its consequential effects on citizens has given rise to a term called 'WhatsApp University,' which satirically refers to individuals who unquestioningly believe and share information from social media platforms without verifying its authenticity.

While existing literature discusses the influence of social media on politics and numerous studies examine its effects on the Indian political landscape, this research seeks to investigate its impact in the era of Generation Z amid a shifting political environment. This research endeavors to illuminate the intricate interplay between social media, political discourse, and voting behaviours, with the aim of providing practical insights to enhance democratic participation and promote informed decision-making among Generation Z.

REVIEW OF LITERATURE

The widespread impact of social media platforms on political discourse and voter behaviour, especially among first-time voters from Generation Z, has attracted considerable attention in recent times. Social media facilitates various forms of political engagement, including posts, tweets, pages, groups, and events, allowing users to actively participate in political discussions (Khan & Shahbaz, 2015; McAllister, 2015).

Social networking sites (SNS) play a vital role in shaping the social and political learning of young individuals, influencing their political beliefs and opinions. The internet and social media have become primary channels for disseminating political information, influencing both online and offline political participation (Jiang, 2016).

However, while social media enhances political engagement among university students, it is essential to critically evaluate its impact. For instance, Ahmad, Alvi, & Ittefaq (2019) found that social media significantly influences voting behaviours among university students by shaping political discussions and providing new insights into political affairs. Kahne et al. (2014) further suggest that social media serves as a platform for information exchange and engagement, facilitating participation in political activities online.

Furthermore, it is essential to acknowledge the limitations and gaps in the current research. For instance, Stroud (2017) highlights the potential for exposure to political content on social media to shape individuals' opinions and attitudes towards political candidates and issues. However, Guess et al. (2019) caution that the spread of misinformation and disinformation on social media can contribute to the polarization of political discourse.

Additionally, Vergeer & Hermans (2013) suggest that social media engagement can increase political participation and voter turnout among young people, particularly among first-time voters in Generation Z. Rustad & Sæbø (2013) further note that social media becomes a focal point for political participation during elections, with politicians utilizing these platforms to maintain connections with citizens and update them on campaign activities.

A substantial amount of literature explores the impact of social media on political dynamics, with a predominant focus on developed nations. However, this research delves into the political landscape of a developing country like India, emphasizing the role of social media as a catalyst in shaping political discourse and voting patterns, particularly among university students. With the notable increase in political engagement by various

stakeholders—such as politicians, political parties, governments, policymakers, election commissions, and voters—since 2014, this study offers relevant insights into the evolving dynamics of political influence in modern times.

RESEARCH OBJECTIVES

The primary goal of this study is to examine the relationship between social media usage, political discourse, and voter behaviour, with the aim of understanding the role and influence of social media on the political behaviour of first-time voters in Generation Z.

I. **To Investigate the Relationship between Social Media Usage and Voter Behaviour:** This objective aims to explore the association between social media usage patterns and voter behaviour among first-time voters in Generation Z. It involves examining how social media engagement influences voting decisions, political participation, and engagement with the electoral process.

II. **To Examine the Influence of Social Media on Political Discourse:** This objective focuses on understanding how social media platforms shape political discussions among first-time voters in Generation Z. It involves exploring the extent to which social media influences the content, tone, and dynamics of political discourse.

III. **To Explore Perceptions of Political Engagement and Efficacy among First-Time Voters:** This objective aims to investigate the perceptions and attitudes of first-time voters in Generation Z towards political engagement and efficacy in the context of social media. It involves exploring their beliefs about the effectiveness of political participation, their confidence in the electoral process, and their sense of agency in influencing political outcomes.

These research objectives aim to address the multifaceted dynamics of political engagement, social media influence, and voting behaviour among first-time voters in Generation Z within the Indian context, with the overarching goal of contributing to a deeper understanding of democratic processes and youth participation in politics.

RESEARCH QUESTIONS

I. How do social media usage patterns influence the voting decisions of first-time voters in Generation Z?

II. What role does social media engagement play in shaping the political participation levels of first-time voters in Generation Z?

III. How does social media influence the content and topics of political discussions among first-time voters in Generation Z

HYPOTHESES

Drawing from the literature reviewed and the study's objectives outlined, the subsequent hypotheses are proposed:

I. Social media usage significantly influences voting patterns and voter behaviour among first-time voters in Generation Z.

II. Social media platforms significantly shape political discussions among first-time voters in Generation Z, influencing the content, tone, and dynamics of political discourse.

III. There is a significant difference in perceptions of political engagement and efficacy among first-time voters in Generation Z based on their social media usage.

RESEARCH VARIABLES

I. Dependent Variables:

1. Voter Behaviour:

- Description: Actions and decisions made by first-time voters in Generation Z regarding their participation in the electoral process.
- Examples: Voter turnout, voting preferences, engagement in political activities.

II. Independent Variables:

1. Social Media Usage:

- **Description:** The extent to which first-time voters in Generation Z use social media platforms for political purposes.

- **Examples:** Frequency of usage, types of activities (posting, sharing, commenting), platforms used (e.g., Facebook, Twitter, Instagram).

2. Political Engagement:

- **Description:** Level of political involvement and participation among first-time voters in Generation Z.

- Examples: Participation in political events or protests, engagement with political organizations or campaigns, activism on social media platforms.

III. Secondary Variables:

1. Demographic Factors:

- **Description:** Demographic characteristics influencing social media usage, political discourse, and voter behaviour.

- Examples: Age, gender, education level, socioeconomic status, geographic location.

METHODOLOGY

Research Design:
This study utilizes a quantitative research approach to systematically examine the correlation between social media usage, political discourse, and voter behaviour among first-time voters in Generation Z.

A cross-sectional survey methodology will be employed to gather data from a representative sample of first-time voters in Generation Z.

Research Model:
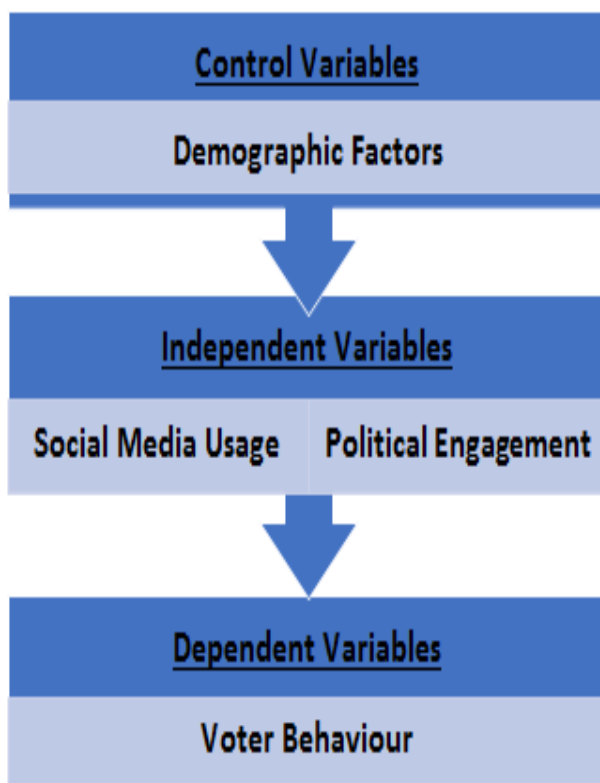
In this model, **Demographic Factors** serve as control variables that may influence social media usage, political engagement, peer influence, and voter behaviour. These factors include age, gender, education level, socioeconomic status, and geographic location.

Social Media Usage serves as an independent variable, indicating the degree to which first-time voters in Generation Z utilize social media platforms for political engagement.

Political Engagement is another independent variable indicating the level of political involvement and participation among first-time voters in Generation Z.

Voter Behaviour serves as the dependent variable, reflecting the actions and decisions made by first-time voters in Generation Z regarding their participation in the electoral process, including voter turnout, voting preferences and engagement in political activities.

Sampling Strategy
The target population comprises first-time voters aged 18 to 24 years from diverse geographic locations across India. A method of stratified random sampling was utilized to ensure inclusion from diverse regions and various socioeconomic backgrounds. The determination of the sample size was conducted using suitable statistical techniques to guarantee sufficient power for analysis.

Data Collection
This survey was distributed to people from Generation Z, particularly from age group of 18-24 (first time voters). With the help of e-mail, Whatsapp, Facebook, Instagram, LinkedIn responses were received from 116 individuals. In the survey, the questionnaire is designed with close-ended questions, majorly with the 5-point Likert Scale (Summated Rating Scale) options like 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree.

Following the data collection process, analysis was conducted using the Jamovi software to perform relevant statistical analyses. Statistical analyses including correlation analysis and one-sample T-test were utilized to explore the relationship between variables and their implications. Descriptive statistics were employed to summarize the demographic characteristics of the sample and the distribution of variables.

Ethical Considerations
This study follows ethical standards for research involving human subjects, including obtaining informed consent, ensuring confidentiality, and emphasizing voluntary participation. Participants are given comprehensive information regarding the study's objectives, their rights, and the confidentiality of their responses. All data collected has been anonymized and stored securely to protect participants' privacy.

DATA INTERPRETATION

I. Gender:
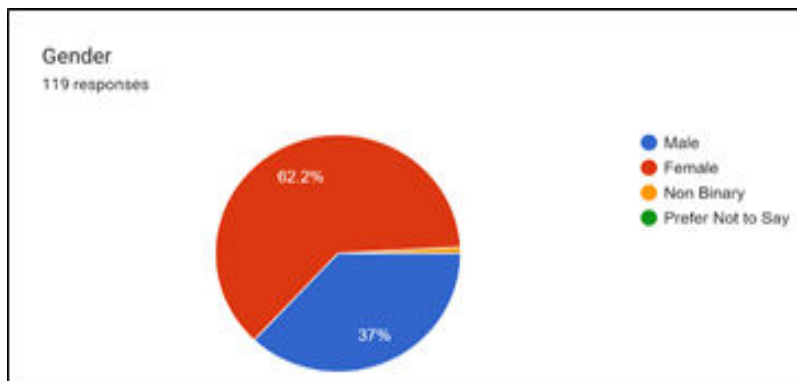
Of the 119 respondents, 74 are female which is about 62.2%, 44 are male which is about 37% and 1 is non-binary which is about 0.8%.

II. Age:
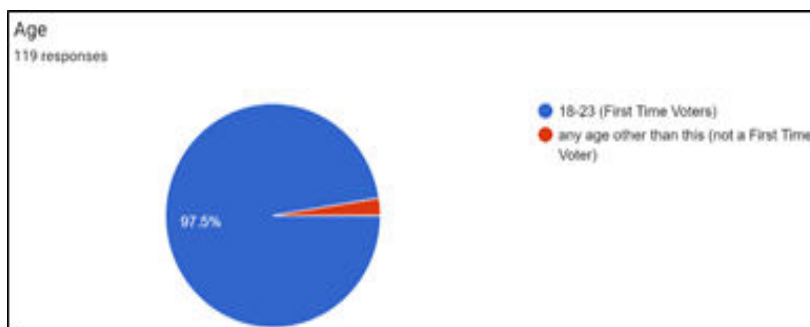
Of the 119 respondents, 116, that is 97.5% is from the age bracket of 18-23 (first-time voters) and three of the respondents are not first time voters.

HYPOTHESES TEST

Hypothesis 1:
(H0): There is no significant relationship between social media usage patterns and voter behaviour among first-time voters in Generation Z.

(H1): Social media usage significantly influences voting patterns and voter behaviour among first-time voters in Generation Z.

Questions
1. Social media discussions about political issues influence my decision to participate in election campaigns or events

2. The social media presence of political candidates affects my likelihood of voting for them

3. Do you feel social media platforms play a significant role in shaping your voting decisions?

4. Social media discussions on political topics often influence your own views

Hypothesis	p-Value	Relationship
There is a Significant Relationship between Social Media Usage Pattern and Voter Behaviour	<.001	Strong Positive

The above table shows relationship between social media usage pattern and voter behaviour in first time voters in Generation Z. There is a strong positive relationship between social media usage pattern and voter behaviour where the p-Value is lesser than 0.001. Hence, the Null Hypothesis is rejected and the alternative hypothesis is accepted. It is concluded that there is significant relationship between social media usage and voter behaviour.

Hypothesis 2
(H0): Social media platforms do not significantly influence the content, tone, and dynamics of political discourse among first-time voters in Generation Z.

(H2): Social media platforms significantly shape political discussions among first-time voters in Generation Z, influencing the content, tone, and dynamics of political discourse.

Questions
1. Do you feel Social media interactions with political content influences your views on political issues?

2. Does social media platforms provide a space for you to engage in meaningful political discussions?

3. Do you believe that social media platforms encourage healthy debate and exchange of ideas on political topics?

4. Do you feel that social media discussions about political issues are often polarized and lack nuance?

5. Do you feel that your posts on Social media influences / changes the political outcomes or views of others?

Hypothesis		p-Value	Relationship	
Social Media platforms significantly influence the dynamics of political discourse		<.001	Strong Positive	
Descriptives				
	N	Mean	Median	SD	SE
G	118	3.62	4.00	0.986	0.09.8
U	118	3.02	3.00	1.169	0.1076
R	118	3.14	3.00	1.077	0.0992
P	118	3.41	3.00	1.031	0.0950
M	118	2.82	3.00	1.217	0.1120

The above table shows relationship between social media and content, tone and dynamics of political discourse among first time voters in Gen Z. There is a strong positive relationship between social media usage by Gen Z and its influence on content, tone and dynamics of political discourse where the p-Value is lesser than 0.001.

Hence, the Null Hypothesis is rejected and the alternative hypothesis is accepted. It is concluded that there is significant influence of social media platforms on tone and dynamics of political discourse.

Hypothesis 3:

(H0): There is no significant difference in perceptions of political engagement and efficacy among first-time voters in Generation Z based on their social media usage.

(H3): There is a significant difference in perceptions of political engagement and efficacy among first-time voters in Generation Z based on their social media usage.

Questions:

1. Do you believe that engaging with political content on social media makes you feel more politically empowered?

2. Do you feel that your posts on Social media influences / changes the political outcomes or views of others?

Hypothesis	p-Value	Relationship
Social media usage significantly influences their perceptions of political engagement and efficacy.	<.001	Strong Positive

The above table shows a relationship between social media sage and Gen Z's perceptions of political engagement and efficacy. There is a strong positive relationship between social media usage by Gen Z and its influence on their perception of political engagement and efficacy where the p-Value is lesser than 0.001. Hence, the Null Hypothesis is rejected and the alternative hypothesis is accepted. It is concluded that there is significant influence of social media usage on Gen Z's perceptions of political engagement and efficacy.

LIMITATIONS

While this study employs a quantitative methodology and cross-sectional data collection via Google Forms from first-time voters in Generation Z, several limitations must be acknowledged. Relying on online surveys may introduce a sampling bias toward individuals with internet access, which could potentially restrict the generalizability of the findings. Response bias and inaccuracies in self-reported data may also affect the reliability of results. Furthermore, the study's scope may overlook relevant variables, and time constraints may restrict the depth of analysis. Additionally, online surveys may exclude individuals not proficient in digital technology, leading to underrepresentation of certain demographic groups.

CONCLUSION

In conclusion, this research underscores the significant relationship between social media usage patterns and voter behaviour among first-time voters in Generation Z. The findings support the hypothesis that social media usage influences voting decisions, political participation, and engagement with the electoral process, with a strong positive correlation observed. Furthermore, the study underscores the significant influence of social media platforms on the content, tone, and dynamics of political discourse among Generation Z, supporting the hypothesis that social media usage profoundly affects political discussions within this demographic. Furthermore, the research unveils a significant correlation between social media usage and the perceptions of political engagement and efficacy among first-time voters in Generation Z, suggesting a substantial impact of social media on their political attitudes and beliefs.

Looking ahead, future research endeavors could further explore the mechanisms by which social media shapes political behaviour among various age groups within Generation Z, taking into account factors like platform preferences, content consumption patterns, and the changing digital environment. Additionally, investigating the effectiveness of interventions designed to enhance critical thinking and media literacy skills among young social media users could offer valuable insights into mitigating the adverse impacts of social media manipulation on political discourse and voter behaviour.

Moreover, amidst these observations, it's important to acknowledge that social media, as a tool, has the potential to increase political awareness among its users, enabling them to spend more time online analyzing and discussing politics. While it provides a platform to form opinions on political events, decisions, and policies, it also carries the risk of being manipulated to influence its users. As previously stated, "social media is only as effective as its user." Regardless of politicians' utilization of social media in their online political endeavors, its significant role in politics persists because of its extensive user base and the influence it wields over them.

RECOMMENDATIONS

Drawing from the research findings, the subsequent suggestions are put forth to bolster democratic engagement and cultivate informed decision-making among Generation Z voters:

1. **Foster Digital Literacy:** Roll out educational programs aimed at boosting digital literacy and critical thinking capabilities among Generation Z, empowering them to navigate social media platforms responsibly and differentiate between credible information and misinformation.

2. **Foster Civil Discourse:** Encourage respectful and constructive political discussions on social media platforms by promoting guidelines for online behaviour and moderation practices. Emphasize the importance of listening to diverse viewpoints, engaging in dialogue, and avoiding personal attacks or inflammatory language to maintain a healthy online discourse.

3. **Increase Political Participation:** Facilitate opportunities for first-time voters in Generation Z to engage meaningfully in the political process beyond social media platforms. Encourage involvement in community organizations, volunteer initiatives, and local political events to foster a sense of civic duty and empowerment among young voters.

4. **Support Transparency and Accountability:** Advocate for increased transparency and accountability measures on social media platforms to counteract the dissemination of misinformation and uphold the integrity of political content. Encourage platforms to implement robust fact-checking mechanisms, disclose sources of political advertising, and enforce policies against deceptive practices.

5. **Foster Intergenerational Dialogue:** Promote intergenerational dialogue and collaboration between Generation Z and older generations to bridge the digital divide and facilitate knowledge exchange. Promote mentorship programs, intergenerational forums, and collaborative projects that harness the distinct perspectives and experiences of diverse age groups to enrich political discourse.

By implementing these recommendations, stakeholders can harness the potential of social media to empower first-time voters in Generation Z, foster informed political engagement, and strengthen democratic participation in the digital age.

REFERENCES

1. Ahmad, M., Alvi, S. M., & Ittefaq, M. (2019). Impact of social media on voting behaviour of university students: A case study of 2018 general elections. International Journal of Marketing Studies, 11(2), 146-162.

2. Emruli, B., & Bača, M. (2011). The importance of social media in politics. European Scientific Journal, 8(3), 18-23.

3. Qualman, E. (2012). Socialnomics: How social media transforms the way we live and do business. John Wiley & Sons.

4. Quintelier, E., & Vissers, S. (2008). Participation in context: Political party youth organizations and the internet. Information, Communication & Society, 11(4), 528-548.

5. Guess, A., Nagler, J., & Tucker, J. (2019). Less than you think: Prevalence and predictors of fake news dissemination on Facebook. Science Advances, 5(1), eaau4586.

6. Jiang, X. (2016). The impact of new media on political communication. Journal of Chongqing Jiaotong University (Social Sciences Edition), 15(4), 56-59.

7. Kahne, J., Middaugh, E., & Allen, D. (2014). Youth, new media, and the rise of participatory politics. In W. Lance Bennett & Alexandra Segerberg (Eds.), The Logic of Connective Action: Digital Media and the Personalization of Contentious Politics (pp. 151-170). Cambridge University Press.

8. Khan, A. H., & Shahbaz, A. (2015). Use of social media and its impact on Pakistani politics. International Journal of Business and Social Science, 6(1), 123-132.

9. McAllister, I. (2015). The social media electoral landscape. Australian Journal of Political Science, 50(3), 417-422.

10. Rustad, Å. K., & Sæbø, Ø. (2013). Social media as arenas for political participation during elections: A study of the 2009 Norwegian parliamentary election. In M. Kamal & J. E. Huginn (Eds.), Political Campaigning on the Web (pp. 173-188). Springer.

11. Stroud, N. J. (2017). Niche news: The politics of news choice. Oxford University Press.

12. Vergeer, M., & Hermans, L. (2013). Campaigning on social network sites: An exploration of the tension between individual and group centered strategies. Journal of Computer-Mediated Communication, 18(3), 247-263.

13. Costache, Monica. (2010). Qualman, Eric. (2009). Socialnomics: how social media transforms the way we live and do business. John Wiley & Sons, New Jersey. Journal of Comparative Research in Anthropology and Sociology. 1

14. Bruce Bimber bimber@polsci.ucsb.edu & Lauren Copeland (2013) Digital Media and Traditional Political Participation Over Time in the U.S., Journal of Information Technology & Politics, 10:2, 125-137, DOI: 10.1080/19331681.2013.769925

15. Schulz, W. (2005). Political Efficacy and Expected Political Participation among Lower and Upper Secondary Students. A Comparative Analysis with Data from the IEA Civic Education Study. Online Submission.

ASSESSING THE SUSTAINABILITY AND SCALABILITY OF JAN AUSHADHI SCHEME

[1]Dr. Naresh Sukhani and **[2]Jainam Gala**

[1]A. Professor, BMS Department and [2]TYBMMAC (Management Studies), Usha Pravin Gandhi College of Arts, Science & Commerce

[1]nareshsukhani@gmail.com and [2]galajainam03@gmail.com

ABSTRACT

The Jan Aushadhi Scheme was launched in India with the aim of making affordable medicines accessible to all. An earlier attempt in this direction in 2008 was unsuccessful due to supply side and logistics management problems. The Jan Aushadhi Scheme was revamped in 2015 to address the shortcomings. The revamped scheme provides financial incentives to store owners. The scheme has been successful in improving the availability and affordability of medicines for the general population. However, there are challenges in scaling up the program to reach a larger population and ensuring its sustainability in the long run. This research paper aims to explore the impact of the Jan Aushadhi Scheme on the availability and affordability of medicines, identify the challenges in scaling up the program, and suggest measures to ensure the sustainability of the scheme. In this paper, we will analyse the current state of the Jan Aushadhi Scheme and propose recommendations based on our research findings. The paper will provide insights into the sustainability and scalability of the Jan Aushadhi Scheme and its potential to benefit the overall healthcare system in India.

Keywords: Generic Medicines, Branded Medicines, Otc Medicines, India, Pm Narendra Modi, Jan Aushadhi Scheme, Affordable medicines, Availability, Affordability, Scaling up, Sustainability, Research paper, Impact, Challenges, Measures, Current state, Recommendations, Insights, Scalability, Healthcare system.

INTRODUCTION

The Jan Aushadhi Scheme, launched by the Government of India, aims to provide quality generic medicines at affordable prices to all citizens, especially the economically disadvantaged, addressing healthcare access and affordability challenges. However, ensuring its long-term success requires evaluating its scalability and sustainability. The research assesses the government's efforts in sustaining and scaling the scheme, covering outlet expansion, accessibility, awareness, partnerships, infrastructure, financial viability, quality assurance, and regulatory compliance. It also outlines challenges faced and provides insights into scalability and sustainability, discussing definitions, the scheme's model, parameters, cost analysis, applicability, and challenges. Finally, it elaborates on achieving scalability and sustainability for the Jan Aushadhi Scheme in India.

Impact of Jan Aushadhi Scheme on Availability and Affordability of Medicines

How has the Jan Aushadhi Scheme contributed to improving the availability of affordable medicines?

The Jan Aushadhi Scheme, an initiative under the PMBJP, ensures quality medicines at affordable prices for all Indians. It has established a robust supply chain of generic medicines nationwide and set up Jan Aushadhi stores offering lower-priced medications. This has notably decreased patients' out-of-pocket expenses and ensured medicine accessibility, particularly in remote areas. Initially launched in 2008, the scheme faced challenges, with only 80 functional stores by 2015, attributed to issues like poor state government support and lack of awareness. However, as of January 31, 2024, there are 10,607 operational Jan Aushadhi Kendras across India, offering 1,965 drugs and 293 surgical items. Collaborating with hospitals, NGOs, and state governments, the scheme expands its reach, ensuring patients receive needed medications and benefit from pharmacists' expertise. It addresses concerns about generic medicine quality and efficacy while significantly reducing healthcare expenses for families. By providing quality generic medicines at affordable rates, the scheme serves as a model for other countries, making generic medications accessible and effective for all segments of society.

What are the challenges in scaling up the Jan Aushadhi Scheme to reach a larger population?

The Jan Aushadhi Scheme, a PMBJP initiative, endeavours to provide quality medicines at affordable rates nationwide. However, scaling up the scheme faces challenges, notably the negative perception of generic medicines among patients and physicians. Government efforts to raise awareness and encourage prescribing generic drugs have had limited success. Cooperation from doctors and adequate supply of Jan Aushadhi products are also hurdles. Challenges include distance from distribution centers, lack of public awareness, state governments' distribution of free medicines, and supply chain issues. Moreover, the public sector struggles to cover all medicines in the scheme. Addressing these challenges is crucial for expanding the Jan Aushadhi Scheme and reducing India's high out-of-pocket healthcare expenditure. According to Singh et al. (2020), pharmaceuticals account for 43% of total out-of-pocket health expenditure, emphasizing the need for affordable medication options.

RESEARCH METHODOLOGY

Target Area Selected
The respondents selected for this research study were from the Suburban district of Mumbai namely from Borivali to Bandra. The respondents were presented with the questionnaire to collect the responses.

This particular sample space was chosen to identify awareness levels of the general public about Jan Aushadhi Shops in suburban areas of Mumbai.

Research objectives
1. **Awareness Level:** Higher awareness correlates with greater satisfaction with the Jan Aushadhi Scheme, leading to better utilization and satisfaction.

2. **Knowledge of Locations:** Knowing Jan Aushadhi store locations positively affects perceptions and experiences with the scheme, enhancing convenience and satisfaction.

3. **Perceptions and Experiences:** Positive views of Jan Aushadhi products result in higher satisfaction, driven by quality, affordability, and accessibility.

4. **Reasons for non-purchase:** Addressing barriers like lack of awareness or quality concerns can boost overall satisfaction by attracting more users.

5. **Improving Awareness and Accessibility:** Effective strategies to enhance awareness and accessibility increase satisfaction by improving communication and utilization.

6. **Overall Satisfaction & Demographic Variables:** Demographic factors like age, income, education, and location influence satisfaction by impacting perceptions and experiences with the scheme.

Research Questions:
1. Why are people not aware about these stores and the benefits concerned with it?

2. Why is the government not able to scale-up the scheme to its utmost potential?

IMPORTANCE OF THE STUDY
This study is crucial for addressing healthcare access and affordability issues, especially in suburban areas where access to affordable medications is limited. Understanding awareness levels of Jan Aushadhi shops is vital for bridging these gaps and empowering individuals to make informed healthcare decisions. By assessing residents' awareness, the survey can reveal knowledge gaps and misconceptions, enabling targeted interventions to improve access to cost-effective generic medications. Increasing awareness about Jan Aushadhi shops supports government initiatives and provides feedback to policymakers, facilitating resource allocation for better effectiveness. Ultimately, this survey aims to enhance awareness and utilization of Jan Aushadhi shops in suburban Mumbai, contributing to the goal of making essential medicines accessible and affordable for all.

REVIEW OF LITERATURE
Several studies have underscored the significance of the Jan Aushadhi Scheme in enhancing access to essential medicines, particularly among marginalized populations. By providing generic alternatives at reduced prices, the scheme has effectively alleviated the financial burden on patients while promoting medication adherence.

1. Patel, K. et al. (2019). "Impact of Jan Aushadhi stores on access to affordable medicines in rural areas of India." Journal of Public Health Policy, 40(3), 324-337. In rural India, the study revealed that Jan Aushadhi stores notably boosted access to vital medications for underserved communities, resulting in better health outcomes and decreased healthcare costs.

2. Sharma, R. et al. (2020). "Assessment of patient satisfaction with Jan Aushadhi scheme in urban slum areas of Delhi." Indian Journal of Pharmacology, 52(4), 303-308. Through a patient satisfaction survey conducted in urban slum areas, this study demonstrated the positive impact of the Jan Aushadhi Scheme in meeting the healthcare needs of economically disadvantaged individuals, thereby fostering medication adherence and treatment compliance.

Ensuring the sustainability and efficacy of the Jan Aushadhi Scheme necessitates robust quality assurance mechanisms to uphold the safety and efficacy of generic drugs dispensed through Jan Aushadhi stores.

3. Gupta, S. et al. (2018). "Quality assurance practices in Jan Aushadhi scheme." Indian Journal of Pharmacy Practice, 11(4), 207-212. This study assessed the implementation of quality assurance practices within the Jan Aushadhi Scheme and highlighted the importance of adherence to Good Manufacturing Practices (GMP) and stringent quality checks to uphold the credibility and reliability of generic medicines.

4. Kaur, H. et al. (2021). "Assessment of pharmacovigilance awareness among Jan Aushadhi store owners in Punjab, India." Perspectives in Clinical Research, 12(3), 151-156. Investigating the awareness and compliance with pharmacovigilance protocols among Jan Aushadhi store owners, this study emphasized the need for enhanced pharmacovigilance training and monitoring to ensure the timely detection and reporting of adverse drug reactions associated with generic medications. Assessing the scalability of the Jan Aushadhi Scheme necessitates a comprehensive evaluation of its capacity to expand infrastructure and distribution networks to meet the growing demand for affordable medicines.

5. Sharma, A., & Singh, S. (2019). "Challenges in scaling up Jan Aushadhi Scheme in India: A qualitative study." Indian Journal of Public Health, 63(4), 304-307. doi:10.4103/ijph.IJPH_398_18

This qualitative study pinpoints infrastructure constraints as a key hurdle in expanding the Jan Aushadhi Scheme. Limited physical infrastructure, such as storage and dispensing facilities, poses challenges in distributing generic medicines, especially in rural and remote regions.

6. Gupta, N., & Singh, H. (2020). "Analysis of infrastructure facilities at Jan Aushadhi stores: A study from Uttar Pradesh." Indian Journal of Community Health, 32(2), 285-288.

This study on Jan Aushadhi stores in Uttar Pradesh emphasizes the urgent need for infrastructure expansion to meet the growing demand for generic medicines. Issues like limited space, inadequate storage, and understaffing pose significant barriers to scaling up the scheme.

7. Jha, M., & Yadav, H. (2021). "Exploring public-private partnership models for scaling up Jan Aushadhi stores in rural India." Journal of Rural Development, 40(1), 103-112.

This study examines various PPP models to expand Jan Aushadhi stores in rural India, underscoring their potential in overcoming infrastructure and staffing limitations. PPPs provide an effective means to optimize resources, improve service delivery, and ensure sustainability in providing affordable medicines through Jan Aushadhi stores.

8. Gupta, S., Kumar, V., & Sharma, A. (2019). Supply chain management in Jan Aushadhi scheme: A systematic review. International Journal of Pharmaceutical Sciences and Research, 10(6), 2587-2596. This systematic review assesses supply chain management in the Jan Aushadhi Scheme, emphasizing efficient procurement, inventory, and distribution for generic medicine accessibility. It identifies challenges like procurement delays and inadequate inventory systems and proposes solutions to enhance supply chain efficiency, crucial for scheme scalability.

9. Mishra, R., & Reddy, S. S. (2020). Addressing supply chain challenges in Jan Aushadhi scheme: Lessons from other public health programs. Indian Journal of Public Health, 64(4), 377-380. This study draws on public health programs to analyse supply chain challenges in the Jan Aushadhi Scheme, proposing strategies for improvement. It highlights synchronized procurement, robust forecasting, and collaboration with accredited suppliers to ensure continuous availability of generic medicines at Jan Aushadhi stores.

10. Kumar, A., Singh, S., & Sharma, R. (2018). Enhancing awareness and acceptance of Jan Aushadhi scheme: Insights from a community-based intervention. Journal of Health Promotion and Education, 6(2), 94-102.

This study assesses a community-based intervention's impact on boosting awareness and acceptance of the Jan Aushadhi Scheme among rural populations. Through workshops, interactive sessions, and distributing informational materials, the intervention effectively raised knowledge about Jan Aushadhi products and improved attitudes towards generic medicines. It highlights grassroots engagement and community involvement as vital for promoting scheme awareness and acceptance.

11. Choudhury, S., & Das, S. (2021). Promotional strategies for Jan Aushadhi scheme: Lessons from successful healthcare campaigns. Journal of Health Communication, 26(1), 45-55.

This paper draws from successful healthcare campaigns to discuss promotional strategies for the Jan Aushadhi Scheme. It emphasizes targeted messaging, multimedia campaigns, and celebrity endorsements to reach diverse audiences and dispel myths about generic medicines. By leveraging innovative communication channels and partnerships, the study suggests effective ways to build trust in Jan Aushadhi products and promote their adoption among consumers.

RESEARCH METHODOLOGY

Conceptual Framework:

The conceptual framework outlines the key components and relationships to be explored in the research. It includes:

Independent Variables

- **Government Policies and Support**: The level of government backing and policy framework for the Jan Aushadhi Scheme.

- **Healthcare Infrastructure**: Availability and accessibility of healthcare infrastructure across different regions.

- **Public Awareness and Acceptance**: Public knowledge, perception, and acceptance of generic medicines provided under the Jan Aushadhi Scheme.

Dependent Variables

- **Sustainability of the Jan Aushadhi Scheme:** Long-term viability and effectiveness of the scheme in providing affordable medicines.

- **Scalability of the Jan Aushadhi Scheme:** Ability of the scheme to expand its reach and impact across various regions and populations.

Mediating Variables

- **Financial Viability**: The economic sustainability of the scheme in terms of revenue generation and cost-effectiveness.

- **Quality Assurance:** Assurance of quality and efficacy of medicines supplied under the Jan Aushadhi Scheme.

- **Stakeholder Engagement:** Involvement and collaboration of various stakeholders including government, pharmaceutical companies, healthcare providers, and the public.
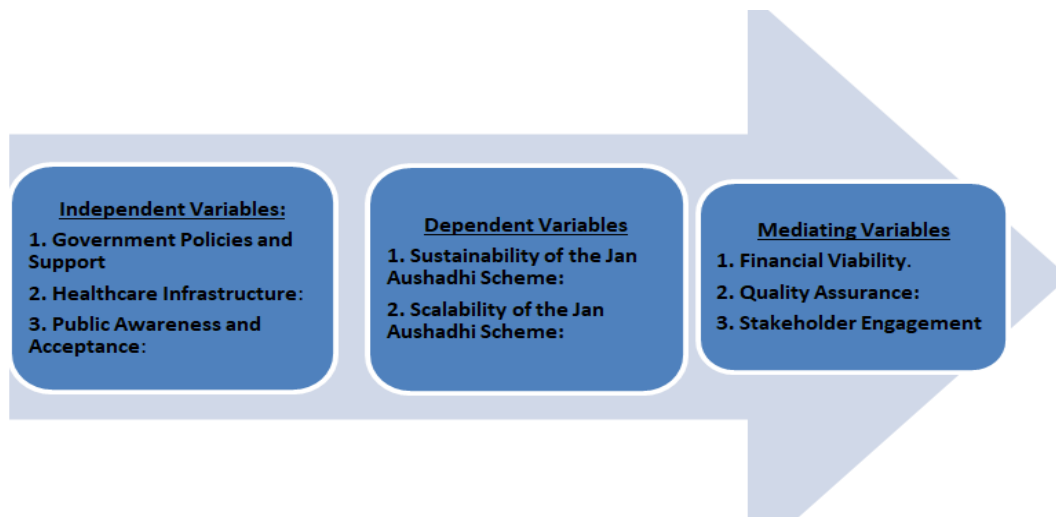
HYPOTHESIS

- Based on the conceptual framework, hypotheses can be formulated to test the relationships between the variables. For example:

- **H1:** Government policies and support positively influence the sustainability and scalability of the Jan Aushadhi Scheme.

- **H2:** Higher levels of public awareness and acceptance lead to increased sustainability and scalability of the Jan Aushadhi Scheme.

- **H3:** Improved healthcare infrastructure positively affects the scalability but not necessarily the sustainability of the Jan Aushadhi Scheme.

- **H4:** Financial viability acts as a mediator between government policies and the sustainability of the Jan Aushadhi Scheme.

- H5: Socioeconomic factors moderate the relationship between public awareness and acceptance and the sustainability of the Jan Aushadhi Scheme.

METHODS OF DATA COLLECTION:

For this study both primary and secondary sources of data have been utilized for the study in reference to Awareness of Jan Aushadhi Shops in Suburban Mumbai. The Primary data was collected through questionnaire to study why people are not aware about these stores and the benefits concerned with it. Data has been collected through online/Google questionnaire form. For the secondary data purposes, various secondary sources such as research papers and web sites will be utilized by scholar.

Research Design: Quantitative research design involving surveys, interviews, and secondary data analysis.

Sampling:

Stratified random sampling to ensure representation from different regions and demographics.

- Data Collection: Use of structured questionnaires, interviews with stakeholders, and analysis of secondary data from government reports and databases.

- Data Analysis: Statistical techniques such as regression analysis, correlation, and structural equation modelling to test hypotheses and explore relationships between variables.

LIMITATIONS OF THE STUDY

Since the study is an individual effort. They are as follows:
- The study is limited to 152 respondents only.

- Limited Generalizability as findings from the survey are not generalizable to the entire population of suburban Mumbai or other regions with different socio-economic characteristics.

FIELD SURVEY REPORT:

The online/Google forms serve as a platform to spread the survey publicly. Respondents are asked to take part in the study individually and virtually using an online survey tool. The online media functions as a platform to spread the survey publicly.

Also, Data of average day to day sales and price comparison between Local Chemists and 3 Jan Aushadhi shops across Suburban Mumbai have been mentioned below:

Sr No	Jan Aushadhi Kendra	Pincode	Status
1.	Shop No.C 97-2/2, Zopdi Receipt No. 1378528, Navrang Society, Akurli Road, Hanuman Nagar, Navrang Wadi.	400101	Functional
2.	Shop Number 16, Madhu Jeevan Jyoti Chsl, Kasturba Road Number1, 400066 Bhavik Kannani Borivali East	400066	Functional
3.	Shop No. 18, Vasant Sagar, Saraswati Chs, Opp. Dmart, Thakur Village, Kandivali-East	400101	Functional

Average Daily Sales through above mentioned Jan Aushadhi Shops is between 15,000-20,000 Rs on a day-to-day basis with a gross margin of approximately 10%.

The selection of 20 medicines is stated below which includes:

1. Name of the Medicine

2. It's generic name

3. Price at a locally established chemist

4. Price at 3 Jan Aushadhi Kendra's stated above

5. Total savings/ Average Reduction in price compared to Branded Medicines

Field survey's derived observation and conclusion have been stated below.

The study conducted a cost analysis focusing on the direct medication costs within the Jan Aushadhi Scheme (JAS). It compared the prices of JAS medicines with branded formulations, assuming similar non-medical costs for accessing medications from Jan Aushadhi stores or private chemists. However, the study didn't delve into the analysis of indirect costs associated with these medications. It examined only 20 drugs, aiming for a quick assessment of the scheme's objectives, suggesting a need for a larger sample size for more comprehensive insights and utilization analysis. The findings revealed that JAS prices are notably lower, set at a maximum of 50% of the average price of top three branded medicines. This indicates that JAS medicines are at least 50% cheaper and, in some cases, 80 to 90% cheaper than the market prices of branded medicines. In conclusion, customers benefit significantly from purchasing medications from JAS stores compared to other sources, underscoring the cost-effectiveness of the scheme.

DATA ANALYSIS AND INTERPRETATION:

AREA OF RESIDENCE:
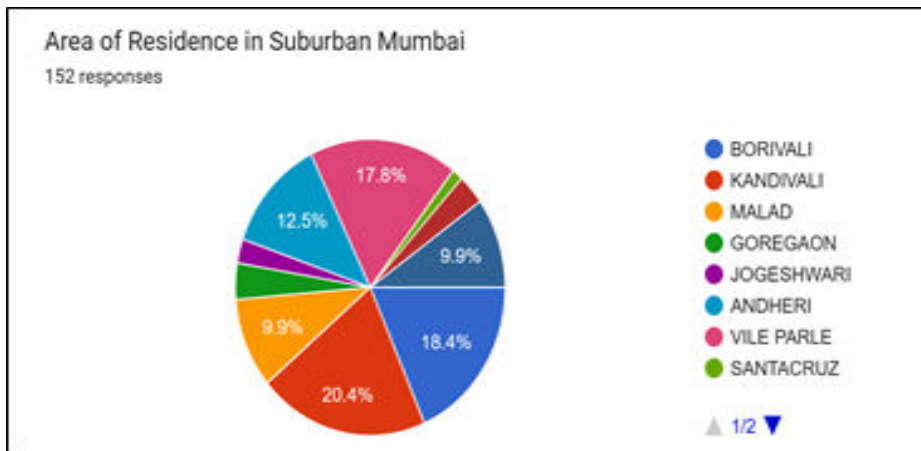
Residents of respondents are diversified across all regions of Suburban Mumbai right from Borivali to Bandra.

HAVE YOU HEARD OF JAN AUSHADHI SHOPS BEFORE PARTICIPATING IN THIS SURVEY?
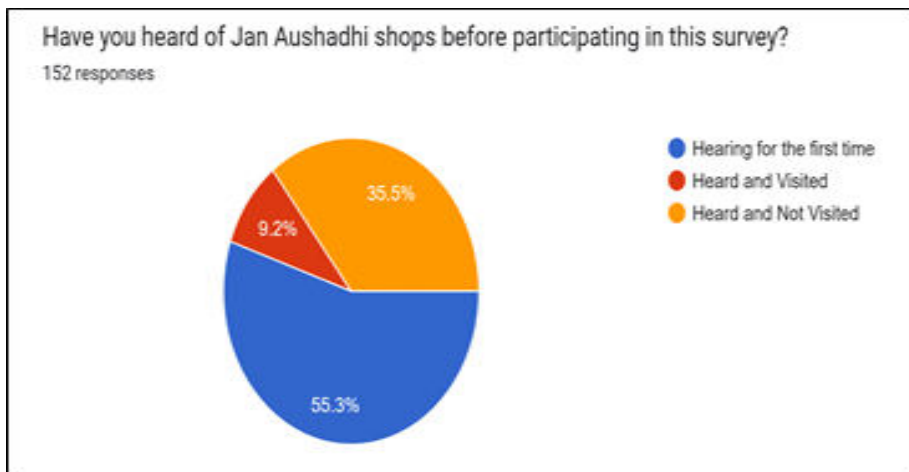
According to the chart Maximum Respondents i.e 55.3% of the total population are hearing about the Jan Aushadhi Shops for the first time, 35.5% have heard but never visited and only 9% of the total respondents have heard and visited the stores.

DO YOU KNOW THE LOCATION OF JAN AUSHADHI SHOPS IN YOUR AREA?

Do you know the locations of Jan Aushadhi shops in your area?
152 responses

- Yes, I know the exact locations
- Yes, I know some locations
- No, I'm not sure
- No, I have no idea

44.7% / 11.2% / 37.5%
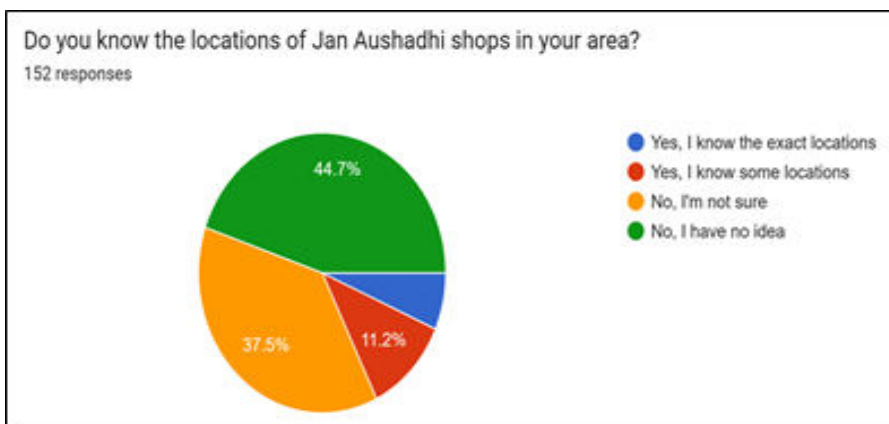
From the given list of respondents, around 6.6 % knew the exact location of these Jan Aushadhi Shops, while 44.7 % did not have any idea regarding the same.

WHAT IS YOUR PREFERENCE OF JAN AUSHADHI SHOPS AND THE QUALITY OF MEDICINES THAT THEY PROVIDE?

What is your perception of Jan Aushadhi shops and the quality of medicines they provide?
152 responses

- Very positive
- Positive
- Neutral
- Negative
- Very negative

55.9% / 9.2% / 30.9%
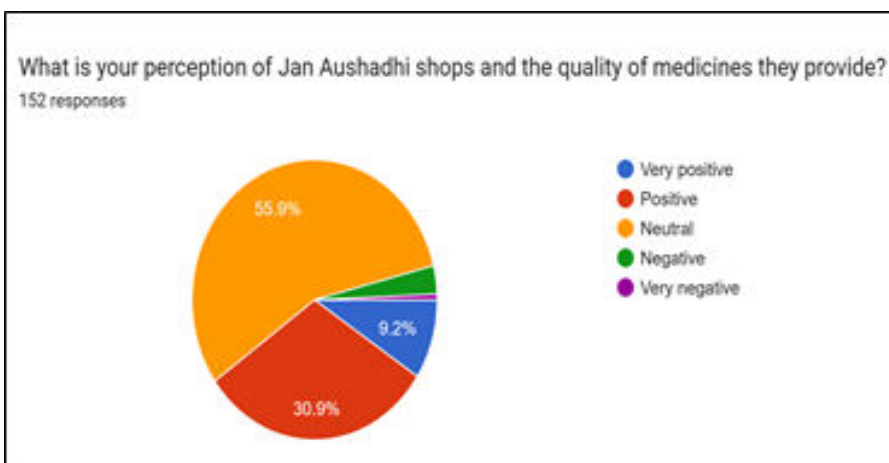
The conclusion derived from this question states a neutral observation regarding the quality of medicines with a majority 56% respondents.

HAVE YOU EVER PURCHASED MEDICINES FROM A JAN AUSHADHI SHOP?

Have you ever purchased medicines from a Jan Aushadhi shop?
152 responses

- Yes
- No
- Maybe

67.8% / 15.1% / 17.1%
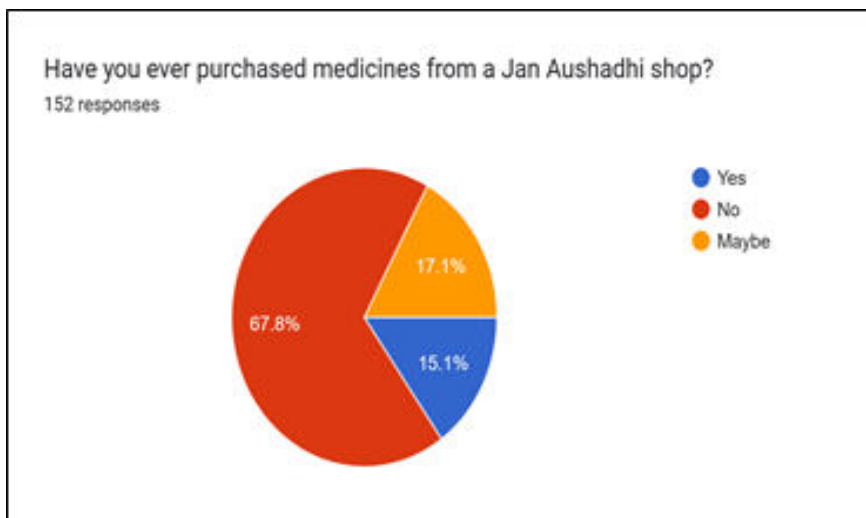
From the responses, it is evident that the majority of the respondents have never purchased medicines from any such store comprising 67% of the total responses and only a 15% population actually purchased from the JAS store.

YOUR OPINION ABOUT TIMELY AVAILABILITY OF MEDICINES AT YOUR NEAREST JAN AUSHADHI KENDRA?
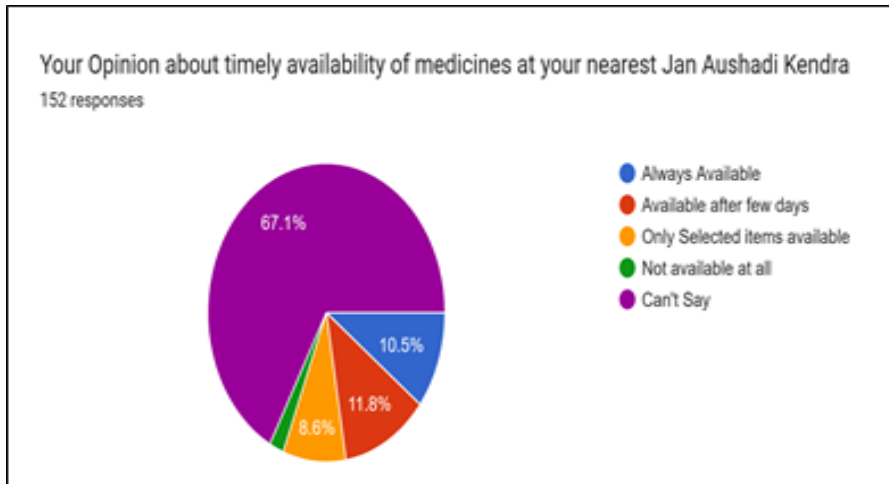
67% were unaware of medicine quality due to not buying from stores, while only 10% reported consistent availability at Jan Aushadhi Stores.

If not, what are the reasons for not purchasing medicines from Jan Aushadhi shops?
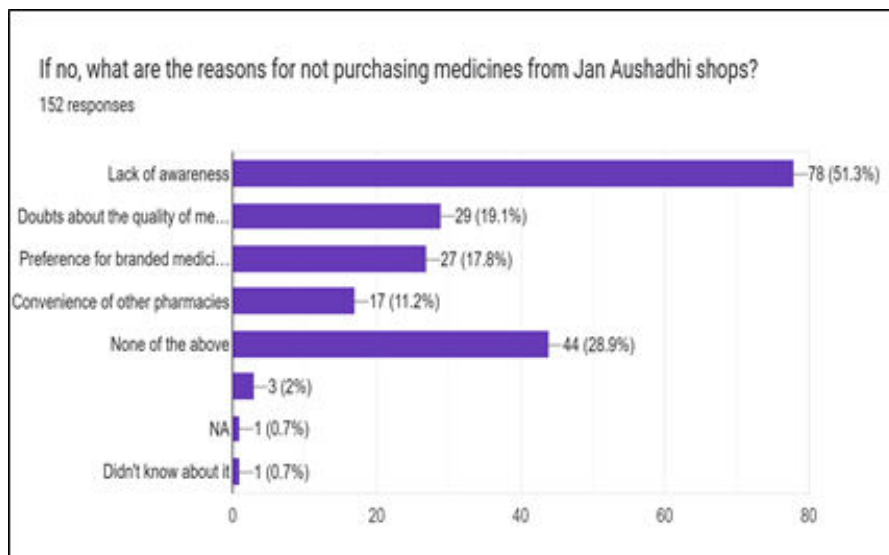
Many respondents cited reasons for not buying from Jan Aushadhi Scheme (JAS) stores: 51% were unaware of the scheme, 19% doubted medicine quality, and 17% preferred brand over generic medicines.

IF YES, HOW DID YOU BECOME AWARE OF JAN AUSHADHI SHOPS?
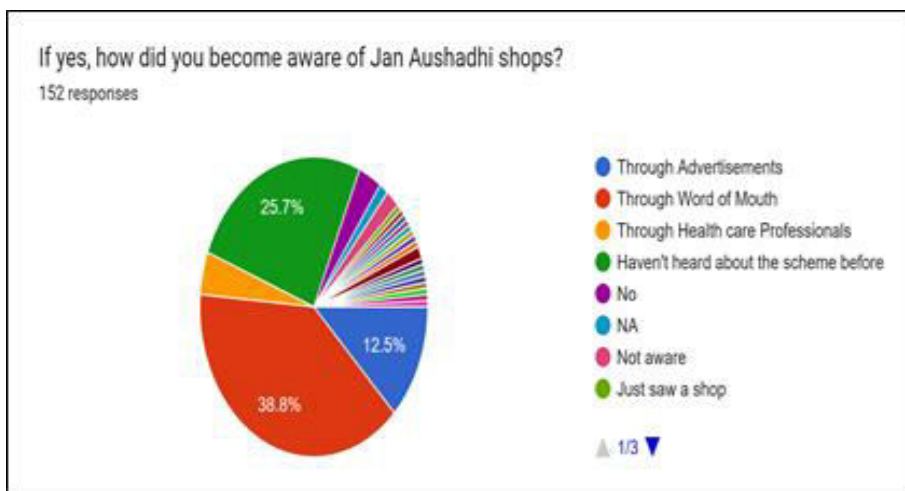
38.8% of respondents learned about the scheme through word of mouth, while 25.7% haven't heard of it yet. Only a few heard about it from advertisements or healthcare professionals.

➢ Field Report survey which includes cost comparison between Jan Aushadhi Shops and Local Chemists determining the cost savings have been stated below:

SR NO.	NAME OF THE MEDICINE	GENERIC MEDICINE NAME	LOCAL CHEMIST	JAS SHOP PRICE	Savings in %
1)	PAN D-15 tab	Apnicid Dsr/ Domperidone	RS 210	Rs 45	78.57
2)	CETANIL 10 MG -15 tab	Cilnidipine/ Cilnac 10 mc	RS 171.20	Rs 46.5	73.86
3)	STALIX DM (10+100+1000)-10 tab	Sitagliptin Phosphate/Mettormin Hydrochloride	RS 230	Rs 250 for 15 tab/ Rs 160 for 10 tabs	30
4)	ROSUMAC 20 MG – 15 tabs	Rosuvastatin 20 mg	Rs 430.65	Rs 70	83.7
5)	CLOPITAB- A 150- 15 tab	Asprin / Clopidogrel	Rs 111.15	Rs 40 for 10 tab / Rs 60 for 15 tabs	45.94
6)	ELTROXIN- 100 MG – 120 tabs	Thyroxine Sodium	Rs 150.40	100	33.33
7)	CROCIN ADVANCE- 20 tab	Paracetamol 500 mg	Rs 19.93	Rs 17.32 for 20 tab / Rs 13 for 15 tabs	13.09
8)	LOPAMIDE -10 tab	Loperamide Hydro chloride tablets	Rs 25.42	Rs 10	60.6
9)	DOMSTAL – 10 tabs	Domperidone Tablets I. P	Rs 25.76	Rs 16	37.8
10)	COMBIFLAM- 20 tab	Ibuprofen and Paracetamol	Rs 43.80	Rs 30	31.5
11)	PRANDIAL 0.3 MD -10 tab	Voglibose Mouth Dissolving tablets	Rs 100.27	Rs 25	75.27
12)	STORVAS 10 MG-15 tab	Atorvastatin 10 mg	Rs 82.99	Rs 21 for 15 tab/ Rs 14 for 10 tabs	74.69
13)	VITCOFOL-15 tab	Zinc and Folic Acid	Rs 108.90	Rs 25	77.06
14)	ERYTHROMYCIN ESTOLATE-10 tab	Anti-Bacterial tablet	Rs 17	Rs 17	NIL
15)	PRIMAQUINE-10 tab	Anti Malerial tablet 7.5 mg	Rs 21.80	Rs 18	17.43
16)	DOMADOL PLUS- 10 tab	Tramadol (37.5mg) + Paracetamol/ Acetaminophen (325.0) mg	Rs 115.70	Rs 13.10	88.67
17)	AZULIX 2 MF – 15 tabs	Glimepiride Tablets I.P and Prolonged Release	Rs 240.75	Rs 30	87.50
18)	FIXAR – 10 tabs	Fexofenadine Hcl and Montelukast Sodium tablets	Rs 115.75	Rs 60	48.16
19)	MEDROL- 10 tab	Methylprednisolone Tablets I. P	Rs 52.59	Rs 22	58.16
20)	N 95 MASKS	Surgical Item	Rs 25	Rs 20	20

FINDINGS:

➢ Maximum population amongst the respondents are unaware about the Jan Aushadhi Scheme implemented by the government.

➢ Maximum responses who have heard about the scheme have heard through word of mouth, hence the need for more advertisement campaigns by the government is highlighted here.

➢ The location of the Jan Aushadhi Stores are not accessible to the general public as 44% of the total responses had no idea about the location of these shops.

➢ Respondents had neutral perceptions with respect to the quality of medicines offered at the Jan Aushadhi store which highlights the overall satisfaction levels of the general public.

➢ Reasons like convenience and cost effectiveness have backed the government's efforts to scale the scheme whereas Lack of awareness, Doubts about the quality of medicines, Preference for branded medicines, Convenience of other pharmacies etc are acting as barriers for non-purchase of medicines.

➢ Non-purchase of medicines by the respondents comprises 67%, as awareness levels amongst people is very low.

FUTURE SCOPE OF RESEARCH

❖ **Research Agenda:** Further research is needed to comprehensively assess the sustainability and scalability of the Jan Aushadhi Scheme. Longitudinal studies, qualitative assessments, and stakeholder consultations can provide valuable insights into the evolving dynamics of the scheme and inform evidence-based policy decisions.

CONCLUSION

The findings underscore the significance of addressing barriers to awareness and accessibility to maximize the potential impact of the Jan Aushadhi Scheme in improving healthcare access and affordability.

Despite efforts to promote Jan Aushadhi shops, a notable proportion of the surveyed population remains unaware of the scheme's existence or harbor doubts about the quality of medicines available. Moreover, preferences for branded medications and limited knowledge of store locations present significant challenges in promoting the adoption of generic medicines offered by Jan Aushadhi shops.

To address these challenges, targeted awareness campaigns, educational initiatives, and community engagement programs are recommended to enhance awareness and acceptance of Jan Aushadhi products among suburban Mumbai residents. Collaborative efforts between government agencies, healthcare providers, and community organizations are essential to overcome infrastructure constraints and improve accessibility to Jan Aushadhi shops, especially in underserved areas.

RECOMMENDATIONS & SUGGESTIONS

❖ Policy Recommendations: Based on the findings of existing research, policymakers can formulate strategies to enhance the sustainability and scalability of the Jan Aushadhi Scheme. These may include targeted investments in infrastructure, capacity-building initiatives, policy reforms to incentivize private sector participation, and regulatory measures to ensure quality and affordability of generic medicines.

❖ Awareness and Education: Launch targeted awareness campaigns and educational initiatives to increase awareness and acceptance of Jan Aushadhi products among healthcare providers and consumers. Engage in community outreach programs, leverage social media platforms, and involve local influencers to disseminate accurate information and dispel myths about generic medicines.

❖ Suggestions from responses of our survey on studying the awareness levels of Jan Aushadhi Shops in Suburban Mumbai include

★ In addition to physical health, I feel mental health is also equally important. Having a professional, who can prescribe medicines at a place or at shops to help the people dealing with mental health issues at a very affordable rate can be really helpful to increase convenience as well as awareness.

★ Bundle common services to reach a larger segment, thereby increasing awareness.

★ Sanitary napkins and more surgical items like masks.

★ Doorstep delivery.

★ Conducting some tests at lower prices for it to be available to all.

★ Expensive injections and drugs.

★ Online delivery and services like telemedicine.

★ Adding up more regeneration medicines.

★ Placing the Jan Aushadhi Stores at strategic locations so that they are easily visible.

★ With the perception among our parents of natural being best, if the products and medicines are backed by objective research and scientific explanation, it would make it easier to accept the commodities than to reject them. So that our parents don't blindly believe it but have a scientific explanation that backs the purchase.

REFERENCES OF THE STUDY

1. Sharma, R., & Chauhan, N. (2019). Jan Aushadhi Scheme in India: A Way Towards Affordable Healthcare. Journal of Pharmaceutical Technology, Research and Management, 7(2), 42-47.

2. Ministry of Chemicals and Fertilizers. (2020). Annual Report 2019-2020. Government of India. Retrieved from [URL]

3. Babu, S., & Babu, A. (2017). Jan Aushadhi Scheme: The Game Changer in Affordable Healthcare. Indian Journal of Public Health Research & Development, 8(4), 366-369.

4. Planning Commission, Government of India. (2015). Twelfth Five Year Plan (2012-17): Faster, Sustainable and More Inclusive Growth. New Delhi: Sage Publications.

5. Malik, V. (2018). Public Health in India: Technology, Governance and Service Delivery. Sage Publications.

6. Press Information Bureau, Government of India. (2022). Jan Aushadhi Scheme: Empowering Citizens with Quality Affordable Medicines. Retrieved from [URL]

7. Goyal, M., & Thakur, R. (2019). A Review on Jan Aushadhi Yojna. International Journal of Pharmaceutical Sciences and Research, 10(7), 3214-3222.

8. Ministry of Health and Family Welfare. (2016). National Health Policy 2017. Government of India. Retrieved from [URL]

9. Kumar, R. (2018). Universal Health Coverage in India: The Jan Aushadhi Scheme. Journal of Health Management, 20(2), 167-175.

10. World Health Organization. (2019). The World Medicines Situation Report 2011. Geneva: WHO Press.

11. JAS price list. October 2015.

12. IMS Health. Assessing the impact of price control measures on access to medicines in India. July 2015.

COMPARATIVE ANALYSIS OF ONLINE PAYMENT APPLICATION PREFERENCES BETWEEN GENERATIONS: UNDERSTANDING THE VARIANCES AND INFLUENTIAL FACTORS

[1]Rohan Patel and [2]Dr Naresh Sukhani

[1]Usha Pravin Gandhi College of Arts, Science & Commerce

[2]Assistant Professor, Usha Pravin Gandhi College of Arts, Science & Commerce

ABSTRACT

This study exclusively relied on survey data to investigate the nuanced dynamics of online payment application preferences among three distinct generational cohorts: Generation Z (Gen Z), Millennials, and Generation X (Gen X). In a rapidly evolving landscape of financial technology, understanding the preferences and behaviours of these three generations is crucial for stakeholders in the financial and technological sectors. Through a comprehensive survey-based approach, the research explored usage patterns, key determinants of preference, and overall user satisfaction levels across the three generations. Rooted in established models of technology adoption and generational disparities, the study aimed to unveil unique characteristics, preferences, and potential future trajectories for online payment methods among Gen Z, Millennials, and Gen X. The survey data served as a primary source of insights, furnishing valuable guidance for the development of user-centric financial technologies and targeted marketing strategies tailored to the distinctive preferences of each generational cohort

Keywords: Online payment application, Generations

INTRODUCTION

The emergence of digital payment systems has changed the face of financial transactions, delivering tremendous ease and flexibility. Customers now have an abundance of alternatives at their fingers because to the numerous mobile apps and web platforms that enable easy transactions. To identify the variables influencing the adoption of digital payment applications, this study will examine the preferences and usage patterns of these apps among various age groups. Traditional payment methods like cash and cheques are gradually being replaced by digital alternatives in today's digital age, which range from peer-to-peer payment applications to mobile wallets. Comprehending the variables that impact the uptake of these electronic payment systems is crucial for financial institutions, enterprises, and regulators alike. Our research seeks to provide valuable insights into the preferences and behaviors of different generations towards digital payment applications. Through a comparative analysis, we aim to discern the factors that shape individuals' preferences and usage intentions across various age groups. By conducting a thorough examination of influential factors such as ease of use, security, and perceived value, our study endeavors to shed light on the intricate dynamics of digital payment adoption. By uncovering the variations in digital payment preferences between generations, our research aims to offer actionable strategies for businesses and policymakers to better address the diverse needs and preferences of consumers. Moreover, understanding the driving forces behind digital payment adoption can lay the groundwork for the development of more intuitive and secure payment solutions, thereby promoting greater financial inclusion and accessibility in our increasingly digitalized world.

RESEARCH METHODOLOGY

Target Group Selected

The respondents selected for this research study were Gen Z population from the age group of (12-27), Millennials population from the age group of (28-43) and Gen X population from the age group of (44-59). The respondents were presented with the questionnaire to collect the responses.

Research objectives

1. To identify and compare the most preferred online payment applications among different generations.

2. To explore the reason for the preferred application choices

3. To examine how factors like satisfaction, brand reputation, privacy concerns, rewards availability, and security impact the choice of online payment platforms across consumer segments.

REVIEW OF LITERATURE

1. **Sholihah, E., & Ariyani, D. (2023)** emphasize perceived ease of use and satisfaction in their research, exploring digital payment usage among Generation Z, with implications for enhancing systems to meet consumer needs.

2. **Peterson (2022) and Parks-Stamm, E., & Flinner, S. (2024)** compare generations' perceptions, revealing differences in attitudes toward cash and digital payments, influenced by factors like banking accessibility on smartphones.

3. **Fadhilah, I., & Aruan, D. T. H. (2023)** investigate digital payment adoption, finding Generation Y influenced by social environments, while Generation Z prioritizes quality and satisfaction.

4. **Martinez, B. M., & McAndrews, L. E. (2023)** compare pre- and post-COVID m-payment behaviour across generations, revealing shifts during the pandemic and differences in intention and behaviour among cohorts.

5. **Castiglioni, C., Sesini, G., Pinel, H., & Lozza, E. (2023)** explores generational attitudes toward cash and electronic money, with implications for businesses and financial institutions.

6. **Seldal, M. M. N., & Nyhus, E. K. (2022)** examine the relationship between digital payments and financial vulnerability, finding mobile payment users less financially vulnerable, particularly women and younger generations.

7. **Makkonen, M., Frank, L., Kemppainen, T., & Juujärvi, T. (2022)** investigate gender and age differences in mobile payment acceptance, highlighting differences in perception among women and older users.

8. **Shankar, A., & Datta, B. (2018)** explore factors influencing m-payment adoption in India, with implications for user-centric adoption strategies.

9. **Liébana-Cabanillas, F., García-Maroto, I., Muñoz-Leiva, F., & Ramos-de-Luna, I. (2020)** highlight the significance of perceived value in influencing the intention to use Apple Pay, providing insights for the mobile payment sector.

10. **Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016)** integrate UTAUT2 and DOI theories to identify factors influencing mobile payment adoption and intention to recommend, emphasizing the importance of customer recommendations in social networks.

METHODS OF DATA COLLECTION

Data collection for this research was conducted using a meticulously designed survey distributed through Google Forms. Respondents were asked to provide their feedback and viewpoints on their preferred online payment application and their experience using the application using Likert-scale questions and multiple-choice questions aimed at gathering details from the participants.

LIMITATIONS OF THE STUDY

1. The study is limited to 223 respondents only.

2. There is no equal distribution of responses between generations.

DATA ANALYSIS AND INTERPRETATION
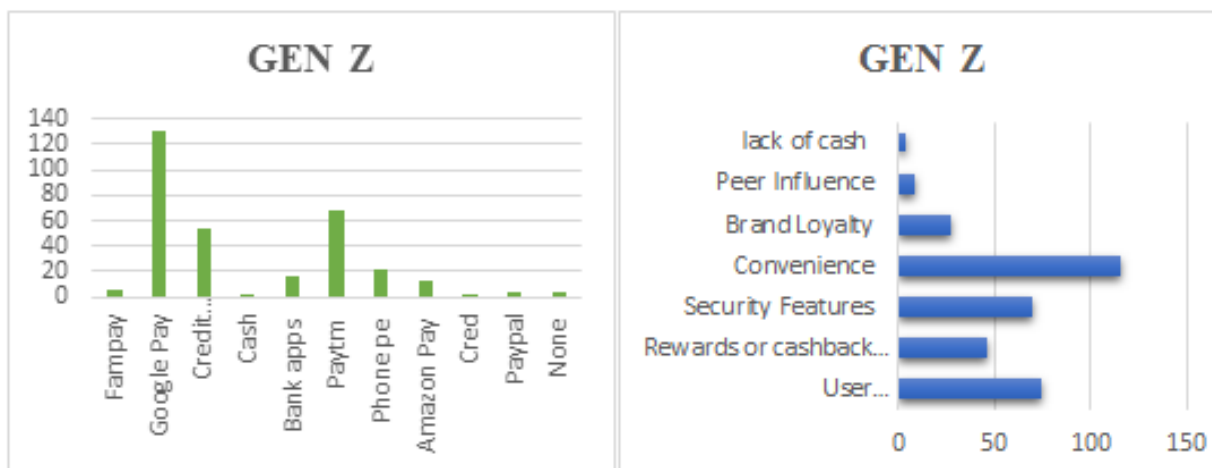
The data reveals that Gen Z heavily favors digital payment apps, particularly Google Pay and Paytm, mentioned 130 and 68 times respectively. **Convenience is their top priority**, cited 116 times, followed by security features with 70 mentions. They also value user interface/experience (75 mentions) and rewards programs (46 mentions). Brand loyalty has minimal influence (28 mentions), while **peer pressure is negligible** (9 mentions). Despite this digital shift, traditional methods like credit/debit cards and bank apps still matter (54 and 16 mentions). In summary, Gen Z's adoption of digital payment apps is driven by convenience, security, and user-friendly interfaces, along with rewards programs. These insights guide businesses in meeting Gen Z's preferences and fostering loyalty in the competitive digital payment sector.
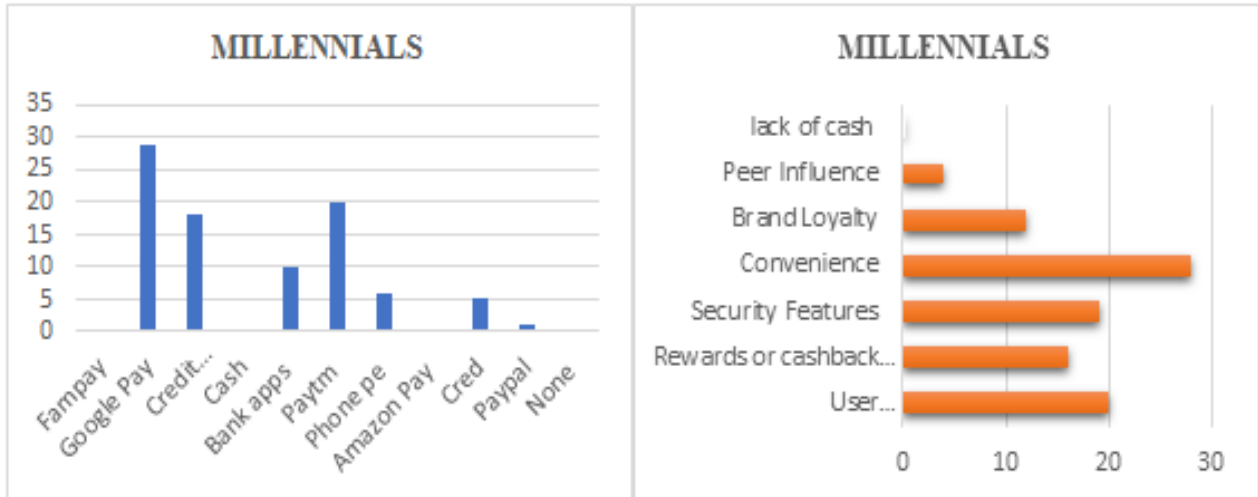
Millennials overwhelmingly favour digital payment apps like Google Pay and Paytm over traditional banking options, placing **convenience** at the forefront of their preferences, as indicated by 28 mentions. Security features and user interface/experience follow closely behind with 19 and 20 mentions respectively, underlining their importance in Millennials' decision-making process. Moreover, the appeal of rewards or cashback programs, mentioned 16 times, significantly influences their choice of payment platform.

Google Pay emerges as the clear favourite among Millennials, mentioned 29 times, closely trailed by Paytm with 20 mentions, underscoring the reliability and convenience offered by these platforms. While credit/debit cards and bank apps also see some usage, with 18 and 10 mentions respectively, they are not as prevalent as Google Pay and Paytm.

In essence, Millennials prioritize digital payment solutions that provide seamless user experiences, strong security measures, and enticing rewards programs. These findings offer valuable insights for businesses seeking to cater to Millennials' preferences and expectations in the ever-evolving landscape of digital payments.
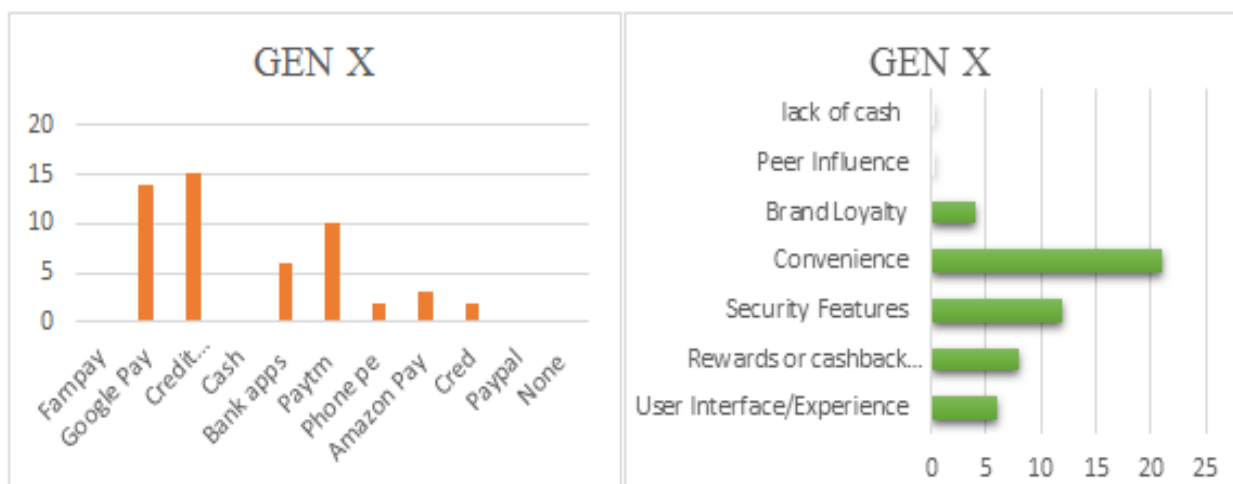
The data reveals that Gen X shows a preference for digital payment platforms, notably **Google Pay and Paytm**, mentioned 14 and 10 times respectively. Their choice is motivated by the convenience (21 mentions) and security features (12 mentions) offered by these apps. However, aspects like user interface/experience and

rewards programs receive fewer mentions, indicating that Gen X values functionality and reliability over additional benefits.

Interestingly, factors like brand loyalty and peer influence have minimal impact, with only 4 and 0 mentions respectively. This suggests that Gen X tends to make payment decisions based on personal preferences and practical considerations rather than social or brand-related influences.

Despite embracing digital solutions, Gen X still finds value in traditional payment methods like credit/debit cards and bank apps, mentioned 15 and 6 times respectively. This indicates a balanced approach, with Gen X maintaining some reliance on conventional banking methods alongside digital platforms.

In summary, Gen X's adoption of online payment apps is primarily **driven by their need for convenience and security**, with less emphasis on brand loyalty or social influence. These findings provide valuable insights for businesses aiming to cater to Gen X's preferences in the digital payment landscape.

	N	Mean	Median	P
1) On a Likert scale of 1-5, how much satisfied are you with the overall user experience of the online payment application(s) you use?	223	4.2	4	< .001
2) How confident are you in the security measures provided by your chosen online payment application(s)	223	3.67	4	< .001
3) How concerned are you about the privacy of your personal information when using online payment applications?	223	3.43	3	< .001
4) To what extent does the reputation of a brand influence your decision to use their online payment application?	223	3.53	4	< .001
5) How important is the availability of a rewards or loyalty program in influencing your choice of an online payment application?	223	3.44	3	< .001

1) To study how satisfied is the customer with the overall UX (user experience) of online payment application(s).

H0: Customers are not satisfied with the overall UX of the online payment application(s) they use.

Ha: Customers are satisfied with the overall UX of the online payment application(s) they use.

Findings: The P value is smaller than 0.001 we reject the null hypothesis and accept the alternate hypothesis. The mean score of 4.2 indicates a high level of satisfaction among customers with the overall experience provided by the payment application.

2) To study how confident customers are with the security measure provided by the online payment application(s).

H0: Customers are not confident with the security measure provided by the application

Ha: Customers are confident with the security measure provided by the application.

Findings: Since the P value is smaller than 0.001 so the null hypothesis was rejected and the alternate hypothesis is accepted. The mean value of 3.67 on the Likert scale suggests that people generally feel more confident when using the payment application.

3) To study how concerned is the customer with the privacy of their personal information while using online payment application(s).

H0: Customer are not concerned about the privacy of their personal information when using online payment applications

Ha: Customer are concerned about the privacy of their personal information when using online payment applications

Findings: As the P value is smaller than 0.001 hence we reject the null hypothesis and accept the alternate hypothesis. The mean value of 3.43 indicates that customers express a significant level of concern regarding the privacy of their personal information when using the applications.

4) To study how the image of the brand influence the decision to use the with the online payment application(s).

H0: The reputation of a brand does not influence the decision to use the online payment application

Ha: The reputation of a brand does influence the decision to use the online payment application

Findings: P value is smaller than 0.001 that is why we the null hypothesis is rejected and the alternate hypothesis is accepted. The mean of 3.53 suggests that the reputation of the brand significantly influences the decision to use the payment application.

5) To study the availability of a rewards or loyalty program in influencing the customer's choice of an online payment application(s).

H0: The presence of a rewards or loyalty program does not significantly impact the selection of an online payment application.

Ha: The presence of a rewards or loyalty program does significantly impact the selection of an online payment application

Findings: As the P value is smaller than 0.001 so we reject the null hypothesis and accept the alternate hypothesis. The mean value of 3.44 suggests that the availability of rewards and loyalty programs significantly influences the choice of payment applications

FUTURE SCOPE OF RESEARCH

1. This research can be extended to encompass diverse geographic settings, including urban and rural areas, to gain insights into the usage patterns and adoption rates of payment applications across various locations.

2. Exploring how regulatory shifts and market dynamics affect consumer behaviour regarding online payment applications.

3. Investigating the adoption of new innovative payment techniques such as biometrics across different generations could yield valuable insights into the evolving landscape of financial transactions.

CONCLUSION

Gen Z shows a significant preference for digital payment platforms like Google Pay and Paytm, driven by factors such as convenience, security, user-friendly interfaces, and rewards programs. Similarly, Millennials also favour digital payment solutions, prioritizing convenience, security, and attractive rewards programs, with Google Pay being a popular choice.

Likewise, Gen X also leans towards digital payment apps such as Google Pay and Paytm, valuing convenience and security. However, considerations like user interface/experience and rewards programs are less emphasized, indicating a stronger focus on functionality and reliability.

Moreover, the research objectives highlight various factors influencing the adoption and usage of online payment applications across different consumer segments. Essential determinants include satisfaction with the overall user experience, confidence in security measures, and privacy concerns, all of which significantly impact consumer behaviour. Additionally, brand reputation and the availability of rewards or loyalty programs emerge as crucial factors influencing the choice of payment applications.

REFERENCES OF THE STUDY

1. Sholihah, E., & Ariyani, D. (2023). Generation Z cashless preferences in the post COVID-19 pandemic era: Identifying the continuity of digital payment usage. *Business Management Analysis Journal (BMAJ), 6*(2), 203-225. https://doi.org/10.24176/bmaj.v6i2.11046

2. Parks-Stamm, E., & Flinner, S. (2024). Generational differences in payment transparency perceptions. *Journal of Retailing and Consumer Services, 77*. https://doi.org/10.1016/j.jretconser.2023.103691

3. Fadhilah, I., & Aruan, D. T. H. (2023). Understanding consumer adoption and actual usage of digital payment instruments: comparison between Generation Y and Generation Z. *International Journal of*

Electronic Marketing and Retailing, ISSN online: 1741-1033 - ISSN print: 1741-1025. https://doi.org/10.1504/IJEMR.2023.10050665

4. Martinez, B. M., & McAndrews, L. E. (2023). Investigating U.S. consumers' mobile pay through UTAUT2 and generational cohort theory: An analysis of mobile pay in pandemic times. *Telematics and Informatics Reports*. https://doi.org/10.1016/j.teler.2023.100076

5. Castiglioni, C., Sesini, G., Pinel, H., & Lozza, E. (2023). Psychology of money and new methods of payment: Generational differences towards a cashless society. *Micro & Macro Marketing, Rivista quadrimestrale, 2*(2023), 311-336. https://doi.org/10.1431/107644

6. Seldal, M. M. N., & Nyhus, E. K. (2022). Financial vulnerability, financial literacy, and the use of digital payment technologies. *Journal of Consumer Policy, 45*(2), 281–306. https://doi.org/10.1007/s10603-022-09512-9

7. Makkonen, M., Frank, L., Kemppainen, T., & Juujärvi, T. (2022). Gender, Age, and Generational Differences in the Use Intention of Mobile Payments and Its Antecedents. In R. Cuel, D. Ponte, & F. Virili (Eds.), *Exploring Digital Resilience* (pp. 137–154). Springer. https://doi.org/10.1007/978-3-031-10902-7_7

8. Shankar, A., & Datta, B. (2018). Factors Affecting Mobile Payment Adoption Intention: An Indian Perspective. *Global Business Review, 19*(3_suppl), S72-S89. https://doi.org/10.1177/0972150918757870

9. Liébana-Cabanillas, F., García-Maroto, I., Muñoz-Leiva, F., & Ramos-de-Luna, I. (2020). Mobile Payment Adoption in the Age of Digital Transformation: The Case of Apple Pay. *Sustainability*, 12(13), 5443. https://doi.org/10.3390/su12135443

10. Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior*, 61, 404-414. https://doi.org/10.1016/j.chb.2016.03.030.

STUDY OF THE RECENT TRENDS IN DIGITAL PAYMENT METHODS IN INDIA

Ms. Ranjana D. Sawaikar

Assistant Professor in Commerce, Government College of Arts, Science & Commerce, Khandola

sranjanad@gmail.com

ABSTRACT

In today's world of digitization, a concept of digital payment is familiar to all. In India it emerged in the last decade through internet banking and since 2016 onwards there is rise in digital payment transactions and Government of India is taking initiatives to promote digitization in all sectors and to bring transparency in financial transactions. Missions like digital India and Cashless India are part of it.

Digital payment method is a part of cashless India's mission. It involves an online transaction without actual exchange of hard cash and without physical visit to bank. The present study highlights the meaning of digital payment, different types of digital payment methods offered by Government, Banks and other private sectors in India. The study also highlights factors influencing digital payment methods, its benefits and challenges involved in implementing it. The study is based on secondary data and it is of conceptual nature. The finding of the studyis that digital payment brings convenience in making payment. It allows to make payment online. It is speedy and less risky. It is available for use 24 x 7. However, it faces challenges like availability of internet connection, electronic device and operating bank account of user.

Keyword: Digitization, Digital payment methods, Digital India, cashless India,

INTRODUCTION

The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. "Faceless, Paperless, Cashless" is one of professed role of Digital India. (cashlessIndia, n.d.).

This evolution process is a continuous process in all sectors including banking sector.

In India for the first time in 1998, ICICI Bank introduced internet banking to its customers. (Wikipedia, n.d.). However, as an initiative taken by honourable prime minister of India Mr. Narendra Modi of making India a digital India in the year 2020, our nation is marching towards digitization in all fields, there is a huge development in information technology and E- Commerce sector. In the last few years. The impact of demonetisation and Covid 19 Pandemic have also brough growth in number of users of internet, E-banking services for education purpose and business purpose. mobile phone with android version called smart phone also became a necessity and it is used by all people including school children for education purpose, in a post covid era we are living in a hybrid state of offline and online transaction, hence mobile phone, internet is used by all people regardless of education and income barriers. The present study mainly focuses on the different aspects related to digital payment methods.

OBJECTIVE OF THE STUDY

- To study the meaning and types of digital payment methods in India.

- To study the factors influencing digital payments methods in India.

- To study the benefits & challenges of digital payment methods in India

RESEARCH METHODOLOGY

The present study is conceptual in nature and is based on secondary data collected from internet, research papers, websites, research journals.

Meaning of digital payment methods

Digital payment means the payment made with the help of electronic devices and internet.

It is also called as online payment. The sources through which such payments are made is called as digital payment methods. Few examples are banks debit and credit cards, Mobile banking, Internet banking, mobile wallets, payment through scanning QR code.etc.

Types of digital payment methods

- **Banking cards**

Banking cards are plastic cards issued by Bank to its customer. It is a most popular method of digital payment used across India. Banking cards are safe, convenientand give facility at all time to the user. It is used as an alternative to cash payment. Broadly the following cards are issued by Banks.

➤ **Debit card**

With the help of debit card customer can withdraw money or make payment for purchase of good and service. It is used to pay various bills, to book online railway tickets or Air tickets The debit card users can withdraw the amount up to the balance available in the saving bank account. A customer must enter the card number, expiry date and CVV (card verification value) which is three-digit number issued by bank. It is confidential and should not be disclosed with anyone. Debit card is as safe way of making online payment. Before processing payment, customer will receive OTP (one time password) on his registered mobile number linked with bank. Also, an intimation comes from bank in the form of 'SMS' (short message service) received from bank intimating about the amount debited from the account.

➤ **Credit card**

Credit card gives the facility to spend more than the available balance in the saving account. Bank set a maximum limit up to which the customer is allowed to withdraw cash or make online payment. Credit card charges are deducted by the bank. Within a time specified by the bank, customer need to deposit such an amount used, within a said time if failed to repay a latefee is charged.

➤ **Prepaid**

Cards which are issued by banks or other financial institution with preloadedmoney. Customer need to charge a particular required amount from his/her debit card in a prepaid card. For single or multiple use such cards are then used to make payment against purchases.

- **Internet banking-**

Internet banking is a digital payment method in which the customer has to visit the website of bank and login to use the internet banking by mentioning username and password issued by bank. Customer can view his saving account statement, download the previous period statements and make fund transfers beside making payments. Following are the modes of making online payment by visiting physically the bank or by login to bank net banking platform:

➤ **Real time gross settlement (RTGS)**

This facility to transfer funds from one account to other account is available through RTGS at the real time when the payment is initiated within the banking working hours. The customer should fill all required details like beneficiary's name, bank name, branch name, account number, IFSC code of receiving bank and the specified amount to be transferred. Once the transaction is initiated by bank, the amounts get transferred from one account to the other. There is a minimum limit of two lakhs and there is no maximum limit under RTGS method.

➤ **National electronic fund transfer (NEFT/**

Under this digital payment system, funds can be transferred from one bank account to other bank account in any branch of the bank in India. This method is popular for its versatile use. There is no minimum and maximum limit for fund transfer under NEFT.

➤ **Immediate payment service (IMPS)**

This digital payment method allows fund transfer from one bank account to other bank account through online mode or linked mobile, or through ATM,to any bank account. This facility is available anywhere and at all time. It isa safe method.

➤ **Electronic clearance service (ECS)**

ECS method is easiest method as an alternative to the physical issue of cheque or cash payment. Under this method directly the amount is creditedor debited to the bank account based on the instructions given to the bank

by the customer. The income like salary, pension is directly credited to the saving bank account. Similarly, payments like loan EMI, LIC premium etcare directly debited from the saving account.

- **Adhar enabled payment system (AEPS)**

This online digital payment is more suitable in remote areas where there is absence of regular ATM and bank facility. Aadhar based payment system allows payment with Aadhar linked bank account operated through Micro ATM centres set up bythe government. This method by passe all other requirements like debit card, or smartphone. The following things are essential for such method-Aadhar card, finger print and identification number issued by bank.

- **Unstructured supplementary service data (USSD)**

This method under digital payment is used by creating certain code with numbers, alphabets or special symbols like hash # or Asterix *, these codes are sent through USSD to the bank, and the message is received from bank though SMS. This facilityis available for those users who do not have smart phone. Under this method a mobile with simple primary function is sufficient. There is no need to have internet during its use. The basic information of a customer like account number, IFSC, Aadhar number and MPIN (Mobile banking personal identification number)is needed.

- **Unified payment interface (UPI)**

The National payment corporation of India has launched UPI. Under this system, user can load more than one saving account in one app at one place on his/her mobile. It becomes easy for an users as there is no need to remember each time username and ID password. It asks for only two types of information, ,VPA (virtual payment address) and MPIN (Mobile Banking Personal Identification Number). Once VPA is shared, customer can make payment or can receive money also.

- **Mobile Wallets**

Under this type of digital payment method, user did not carry hard cash in aphysical wallet but money is saved in a digital form in a mobile application called mobile wallets which is linked to the bank account. The amount is transferred

through the use of debit card or credit card and saved in a mobile wallet. Each bank has their own applications. Few of them are Paytm, Freecharge, Mobikwik, Oxigen, Rupee, Airtel Money, Jio Money, SBI Buddy, its Cash, Citrus Pay, Vodafone M- Pesa, Axis Bank Lime, ICICI Pockets, Speed Pay etc. (cashlessindia, n.d.)

- **Mobile banking (through Apps)**

Under this system, the customer can make transaction with the help of mobile through application software provided by the banks or any other financial institutions. Such facility helps the customer to carry the transactions from remote places and need not visit banks. Each bank has its own app to conduct such financial transaction. Customer can view his/her bank balance, bank statements through mobile banking.

- **Quick Response code (QR)**

Now days it is one of the popular methods of digital payment, here the payment can be done by just scanning the QR code. It is one of the option available under UPI.It is the easiest way to make payment for purchases made for goods and services. It is issued by bank once the application software is issued for mobile banking service.It is mostly used by retailers for accepting payments.

- **Point of Sale (POS)**

It is one of the digital payment methods used by retailers in their shops, supermarkets, malls where people come to make purchases. POS are setup at the entrance of the shop where customer come back after finishing their shopping. At the POS the bills for the purchases made will be generated. by the software. The bill can be paid by the customer using any of the mode like debit card, E-wallet, mobile banking, QR code etc. It is one of the easiest way the customer can make payment without carrying hard cash.

- **Factors influencing digital payment in India.**

➢ **Government of India initiatives**

Few schemes of Indian Government like Digital India program, Pradhan

Mantri Jan Dhan Yojana, Digivaarta, digi dhan vyapar yojana, Digi Dhan Abhiyan campaign by 'Ministry of Electronics and IT'(Meity), Digital Indialearning channel on television and Bharat QR code etc. The objective of theabove scheme is to provide digital platform and to create digital awarenessamong all citizens of India.

➢ **National payments corporations of India. (NPCI)**

With the initiatives of Government of India, RBI and Indian Bank Associations (IBA),in the year 2008 the National Payments Corporation of India(NPCI) was launched in India to create payment and settlement infrastructure in India. On 24th September 2009, (NPCI) got approval for operating various payment

systems. Some of the payment system operatedby NPCI are Repay, IMPS, NACH, APBS, AEPS, Bharat bill paymentsystem, NETC, NFS, UPI NETC (National Electronic toll collection)

➢ **Covid 19 Pandemic**

Due to the complete lockdown declared by the government during covid pandemic time, people could not move out from their home and were compelled to make use of digital payment systems to purchase medicines, goods and services.

➢ **Entry of smartphone in the market**

As a result of entry of smartphone in the market with android version and advanced features suitable for promoting online services through mobile applications, people started moving towards digital payment with the help of smartphone.

➢ **Availability of internet**

Private sectors Reliance, Jio Idea Vodaphone etc have come forward to launch 4G, 5G data services.

➢ **Rise in E-commerce**

There is an increase in online shopping among young generation. The growth in E-commerce resulted in more use of digital payments in India.

- **Benefits of digital payment methods**

➢ **Speedy**: It saves time as transactions take place at a click of button.

➢ **Availability**-It is possible to use anytime and anywhere

➢ **Convenience**-It is more convenient as there is no need to physically carryhard cash and no need to visit a place to make transaction or purchases.

➢ **No Risk of theft** -As all transactions are done through bank account, thereis no risk of theft.

➢ **Easy to operate**-A person who knows about basics of banking andelectronic device can operate it easily.

➢ **Pay bills** -It is possible to pay bills of electricity, water, goods and services.

➢ **Fund transfer**-Fund transfer is also possible with the help of digital payment methods.

➢ **Track the status**-User can check the status of transaction in case of this method.

➢ **No need to visit bank**-People do not visit bank for a task like updating pass book, balance inquiry, fund transfer and withdraw money.

➢ **Manage accounts**-A customer can set the payment limit, add mobile application on his own.

➢ **Provide instant confirmation of payment by sms**-For each and everytransaction, message is received on mobile through bank,it becomes easy to get confirmation about payment made or money received in account. Also, immediately it protects the customer from

- **Challenges involved in use of digital payment methods**

➢ **Internet connectivity**-In order to use successfully most of the digital payment methods there is a need of uninterrupted internet connectivity.

➢ **Active bank account**- In order to use all digital payment methods, the saving account of the customer should be in an operating condition.

➢ **Registration is mandatory**-In order to use any of this digital payment method, the customer has to register on the device by linking his/her bank account, registered mobile number and it it has to be linked to the debit or credit card in order to use such facilities.

➢ **Susceptible to hackers**-In case if the PIN or password got in wrong hands or there is a leakage, in such case it can be misused by hackers.

➢ **Limited use in remote places**-The two necessities of digital payment methods are availability of electronic device and network, in the absence of it few methods of digital payments can be successful.

➢ **Knowledge about digital payment is necessary**: The user must have some basic knowledge about how to use such digital payment methods, and awareness about dos and don'ts in using such method.

- **CONCLUSION**

From the studies it is concluded that government of India, RBI and Banking Associations with the help of other private sectors are taking tremendous efforts to promote digital payment environment in India. It is also observed that there is a continuous growth in number of users of such digital methods in last few years. The benefits of digital payment is that it brings convenience in making payment. It allows to make payment online. It is speedy and less risky. It is available for use 24 x 7. However, it faces challenges like availability of internet connection, electronic device and operating bank account of user

There is a good prospect for digital payments in the coming years to make it really successful for achieving India's mission of cashless India.

REFERENCES

1. Franciska, A. M., & Sahayaselvi, S. (2017). An overview on digital payments. International Journal of Research, 4(13), 2101-2111.

2. Jain, S. (2023). A study on Digital Payment System and its Future Feasibility in India. International Journal of International Institute of Management Studies, 2(1).

3. Shettar, R. M. (2019). Digital Banking an Indian Perspective. IOSR Journal of Economics and Finance, 10(3), 1-05.

4. Sujith, T. S., & Julie, C. D. (2017). Opportunities and Challenges of E-payment System in India. International Journal of Scientific Research and Management (IJSRM), 5(09), 6935-6943.

5. www.cashlessindia.org

6. cashlessindia.gov.in

MANUSCRIPT SUBMISSION

GUIDELINES FOR CONTRIBUTORS

1. Manuscripts should be submitted preferably through email and the research article / paper should preferably not exceed 8 – 10 pages in all.

2. Book review must contain the name of the author and the book reviewed, the place of publication and publisher, date of publication, number of pages and price.

3. Manuscripts should be typed in 12 font-size, Times New Roman, single spaced with 1" margin on a standard A4 size paper. Manuscripts should be organized in the following order: title, name(s) of author(s) and his/her (their) complete affiliation(s) including zip code(s), Abstract (not exceeding 350 words), Introduction, Main body of paper, Conclusion and References.

4. The title of the paper should be in capital letters, bold, size 16" and centered at the top of the first page. The author(s) and affiliations(s) should be centered, bold, size 14" and single-spaced, beginning from the second line below the title.

<div align="center">

First Author Name1, Second Author Name2, Third Author Name3

1Author Designation, Department, Organization, City, email id

2Author Designation, Department, Organization, City, email id

3Author Designation, Department, Organization, City, email id

</div>

5. The abstract should summarize the context, content and conclusions of the paper in less than 350 words in 12 points italic Times New Roman. The abstract should have about five key words in alphabetical order separated by comma of 12 points italic Times New Roman.

6. Figures and tables should be centered, separately numbered, self explained. Please note that table titles must be above the table and sources of data should be mentioned below the table. The authors should ensure that tables and figures are referred to from the main text.

EXAMPLES OF REFERENCES

All references must be arranged first alphabetically and then it may be further sorted chronologically also.

- **Single author journal article:**

Fox, S. (1984). Empowerment as a catalyst for change: an example for the food industry. *Supply Chain Management*, *2*(3), 29–33.

Bateson, C. D.,(2006), 'Doing Business after the Fall: The Virtue of Moral Hypocrisy', Journal of Business Ethics, 66: 321 – 335

- **Multiple author journal article:**

Khan, M. R., Islam, A. F. M. M., & Das, D. (1886). A Factor Analytic Study on the Validity of a Union Commitment Scale. *Journal of Applied Psychology*, *12*(1), 129-136.

Liu, W.B, Wongcha A, & Peng, K.C. (2012), "Adopting Super-Efficiency And Tobit Model On Analyzing the Efficiency of Teacher's Colleges In Thailand", International Journal on New Trends In Education and Their Implications, Vol.3.3, 108 – 114.

- **Text Book:**

Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2007). *Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies* (3rd ed.). New York: McGraw-Hill.

S. Neelamegham," Marketing in India, Cases and Reading, Vikas Publishing House Pvt. Ltd, III Edition, 2000.

- **Edited book having one editor:**

Raine, A. (Ed.). (2006). *Crime and schizophrenia: Causes and cures.* New York: Nova Science.

- **Edited book having more than one editor:**

Greenspan, E. L., & Rosenberg, M. (Eds.). (2009). *Martin's annual criminal code:Student edition 2010.* Aurora, ON: Canada Law Book.

- **Chapter in edited book having one editor:**

Bessley, M., & Wilson, P. (1984). Public policy and small firms in Britain. In Levicki, C. (Ed.), *Small Business Theory and Policy* (pp. 111–126). London: Croom Helm.

- **Chapter in edited book having more than one editor:**

Young, M. E., & Wasserman, E. A. (2005). Theories of learning. In K. Lamberts, & R. L. Goldstone (Eds.), *Handbook of cognition* (pp. 161-182). Thousand Oaks, CA: Sage.

- **Electronic sources should include the URL of the website at which they may be found, as shown:**

Sillick, T. J., & Schutte, N. S. (2006). Emotional intelligence and self-esteem mediate between perceived early parental love and adult happiness. *E-Journal of Applied Psychology*, 2(2), 38-48. Retrieved from http://ojs.lib.swin.edu.au/index.php/ejap

- **Unpublished dissertation/ paper:**

Uddin, K. (2000). A Study of Corporate Governance in a Developing Country: A Case of Bangladesh (Unpublished Dissertation). Lingnan University, Hong Kong.

- **Article in newspaper:**

Yunus, M. (2005, March 23). Micro Credit and Poverty Alleviation in Bangladesh. *The Bangladesh Observer*, p. 9.

- **Article in magazine:**

Holloway, M. (2005, August 6). When extinct isn't. *Scientific American, 293*, 22-23.

- **Website of any institution:**

Central Bank of India (2005). *Income Recognition Norms Definition of NPA*. Retrieved August 10, 2005, from http://www.centralbankofindia.co.in/ home/index1.htm, viewed on

7. The submission implies that the work has not been published earlier elsewhere and is not under consideration to be published anywhere else if selected for publication in the journal of Indian Academicians and Researchers Association.

8. Decision of the Editorial Board regarding selection/rejection of the articles will be final.

INTERNATIONAL JOURNAL OF RESEARCH IN MANAGEMENT & SOCIAL SCIENCE
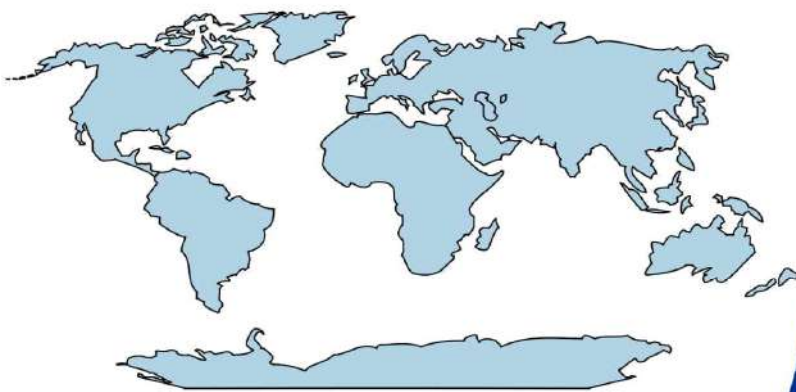
www.iaraedu.com

Journal

International Journal of Research in
Science and Technology

Indian Academicians and Researchers Association

www.iaraedu.com

INDIAN ACADEMICIANS AND RESEARCHERS ASSOCIATION

Membership No: M / M – 1365

Certificate of Membership

This is to certify that

XXXXXXXX

is admitted as a

Fellow Member

of

Indian Academicians and Researchers Association

in recognition of commitment to Educational Research

and the objectives of the Association

Date: 27.01.2020

Director

President

INDIAN ACADEMICIANS AND RESEARCHERS ASSOCIATION

Membership No: M / M – 1365

Certificate of Membership

This is to certify that

XXXXXXXXXX

is admitted as a

Life Member

of

Indian Academicians and Researchers Association

in recognition of commitment to Educational Research

and the objectives of the Association

Date: 27.01.2020

Director

President

INDIAN ACADEMICIANS AND RESEARCHERS ASSOCIATION

Membership No: M / M – 1365

Certificate of Membership

This is to certify that

XXXXXXXX

is admitted as a

Member

of

Indian Academicians and Researchers Association

in recognition of commitment to Educational Research

and the objectives of the Association

Date: 27.01.2020

Director

President

IARA Organized its 1ˢᵗ International Dissertation & Doctoral Thesis Award in September'2019

1ˢᵗ International
Dissertation & Doctoral Thesis Award
(2019)

Organized By

Indian Academicians and Researchers Association (IARA)

EPH EMPYREAL PUBLISHING HOUSE

JUSTICE SHAFIQUL HAQUE
Reflections and Juridical Thoughts
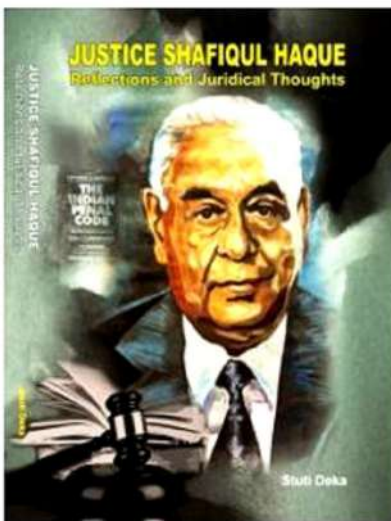
Stuti Deka

Dr. Stuti Deka
ISBN : 978-81-930928-1-1

Digital India
A road ahead

Edited by
Dr. Tazyn Rahman
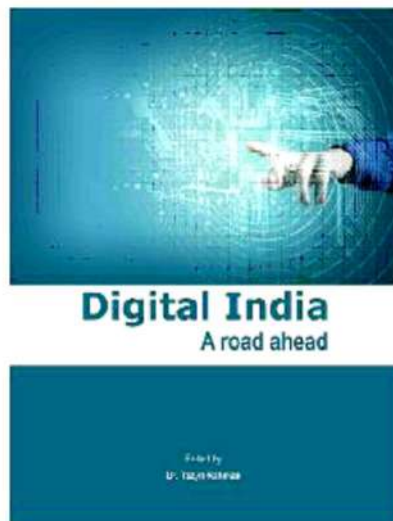
Dr. Tazyn Rahman
ISBN : 978-81-930928-0-4

A Guide to
INJECTION MOULDING TECHNIQUE

Dinbandhu Singh

Mr. Dinbandhu Singh
ISBN : 978-81-930928-3-5

EDUCATIONAL RESEARCH ON
Jammu and Kashmir

Edited by
Dr. Ismail Thamarasseri

Dr. Ismail Thamarasseri
ISBN : 978-81-930928-2-8

6 SEASONS OF SUCCESS
Solutions To Paint Your Tomorrow
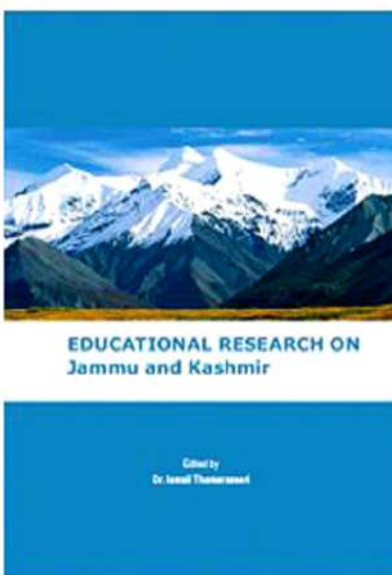
Ram Jaladurgam   Dr. S. Anand Reddy
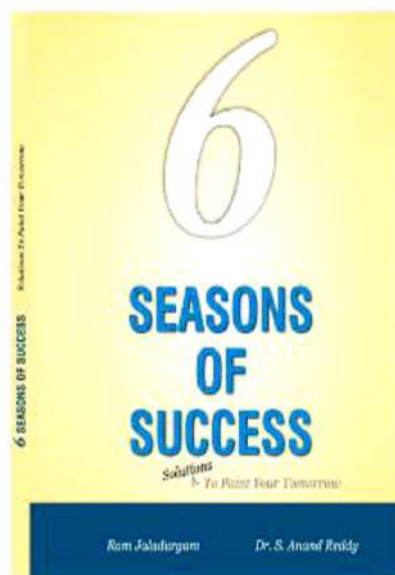
Ram Jaladurgam
Dr. S. Anand Reddy
ISBN : 978-81-930928-5-9

BUSINESS SUSTAINABILITY AND CONTEMPORARY PRACTICES

Business Management Cases

Edited By:
Dr. Sanjeev Bansal
Dr. Vijit Chaturvedi
Dr. Tazyn Rahman
Dr. Parikshit Joshi
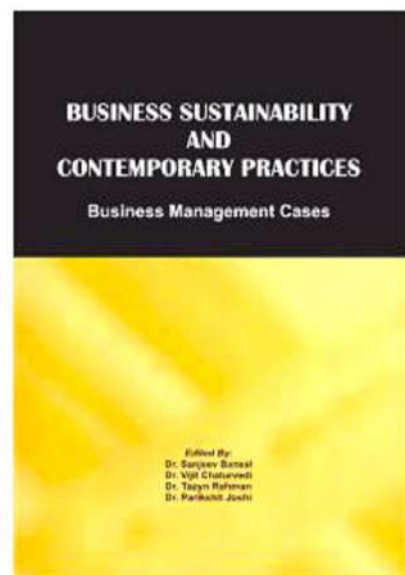
Dr. Sanjeev Bansal, Dr. Vijit Chaturvedi
Dr. Tazyn Rahman, Dr. Parikshit Joshi
ISBN : 978-81-930928-6-6
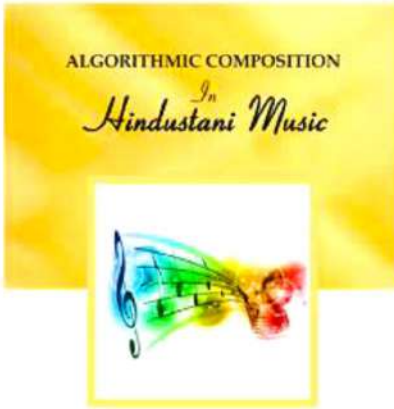
ALGORITHMIC COMPOSITION *In* Hindustani Music

Ashish Kumar Sinha, Dr. Soubhik Chakraborty
Dr. Amritanjali
ISBN : 978-81-930928-8-0
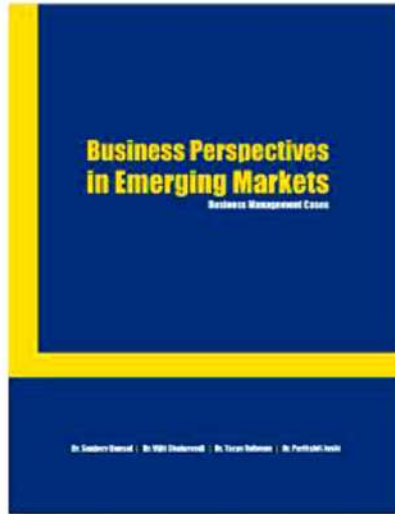
Business Perspectives in Emerging Markets
Business Management Cases

Dr Sanjeev Bansal, Dr. Vijit Chaturvedi
Dr. Tazyn Rahman, Dr. Parikshit Joshi
ISBN : 978-81-936264-0-5

Performance Management Practices FOR IT COMPANIES

Dr. Jyotsna Golhar
Dr. Sujit Metre
ISBN : 978-81-936264-6-7
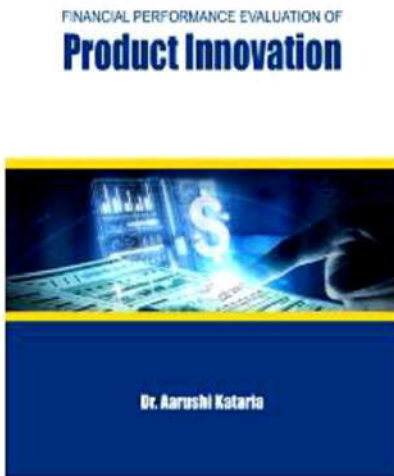
FINANCIAL PERFORMANCE EVALUATION OF Product Innovation

Dr. Aarushi Kataria
ISBN : 978-81-936264-3-6
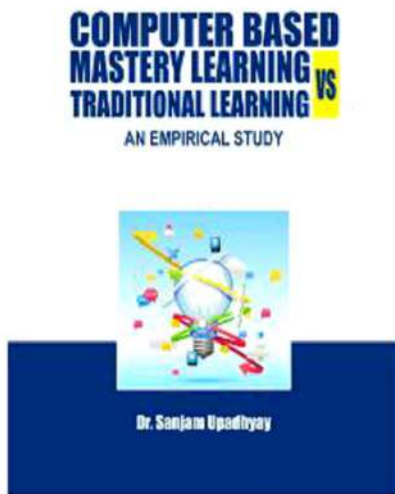
COMPUTER BASED MASTERY LEARNING VS TRADITIONAL LEARNING
AN EMPIRICAL STUDY

Dr. Sanjam Upadhyay
ISBN : 978-81-936264-5-0
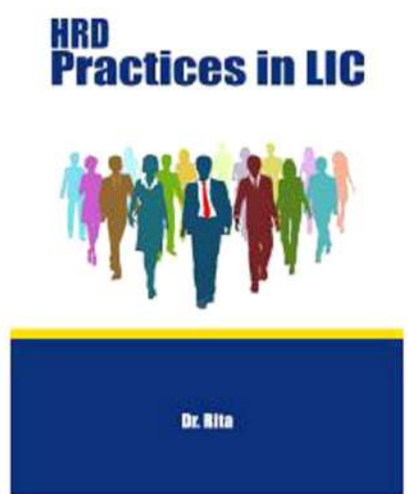
HRD Practices in LIC

Dr. Rita
ISBN : 978-81-930928-7-3
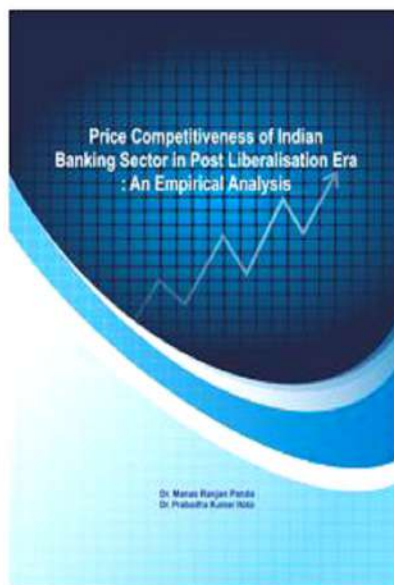
Price Competitiveness of Indian Banking Sector in Post Liberalisation Era : An Empirical Analysis

Dr. Manas Ranjan Panda, Dr. Prabodha Kr. Hota
ISBN : 978-81-930928-4-2

NATIONAL CONFERENCE ON INNOVATIVE TRENDS IN CIVIL ENGINEERING
April 13 - 14, 2018

DEPARTMENT OF CIVIL ENGINEERING
POORNIMA UNIVERSITY
PROCEEDINGS
ISBN: 978-81-936264-7-4

Poornima University
ISBN : 978-8193-6264-74

MIDITOC 2K18
PROCEEDINGS OF THE CONFERENCE ON MARKETING IN DIGITAL INDIA:
TRENDS, OPPORTUNITIES & CHALLENGES
THEME: INDIA INTERNET MARKETING

Institute of Public Enterprise
ISBN : 978-8193-6264-4-3

Vitamin D Supplementation in SGA Babies

Dr. Jyothi Naik, Prof. Dr. Syed Manazir Ali
Dr. Uzma Firdaus, Prof. Dr. Jamal Ahmed
ISBN : 978-81-936264-9-8

Gold Nanoparticles: Plasmonic Aspects And Applications

Dr. Abhitosh Kedia
Dr. Pandian Senthil Kumar

Dr. Abhitosh Kedia
Dr. Pandian Senthil Kumar
ISBN : 978-81-939070-0-9

Social Media Marketing and Consumer Behavior

Dr. Vinod S. Chandwani

Dr. Vinod
S. Chandwani
ISBN : 978-81-939070-2-3

Select Research Papers of Prof. Dr. Dhananjay Awasarikar

Prof. Dr. Dhananjay
Awasarikar
ISBN : 978-81-939070-1-6

Recent ReseaRch Trends in ManageMenT

Dr. C. Samudhra Rajakumar, Dr. M. Ramesh
Dr. C. Kathiravan, Dr. Rincy V. Mathew
ISBN : 978-81-939070-4-7

Recent ReseaRch Trends in Social Science

Dr. C. Samudhra Rajakumar, Dr. M. Ramesh
Dr. C. Kathiravan, Dr. Rincy V. Mathew
ISBN : 978-81-939070-6-1

Recent Research Trend in Business Administration

Dr. C. Samudhra Rajakumar, Dr. M. Ramesh
Dr. C. Kathiravan, Dr. Rincy V. Mathew
ISBN : 978-81-939070-7-8

Recent Innovations in Biosustainability and Environmental Research II

Dr. V. I. Paul, Dr. M. Muthulingam
Dr. A. Elangovan, Dr. J. Nelson Samuel Jebastin
ISBN : 978-81-939070-9-2

Teacher Education: Challenges Ahead

Sajid Jamal
Mohd Shakir
ISBN : 978-81-939070-8-5

Pr oj ect Ma na ge Ment

Dr. R. Emmaniel
ISBN : 978-81-939070-3-0

The *théâtre engagé*
American Drama from the '29 Crash to World War II
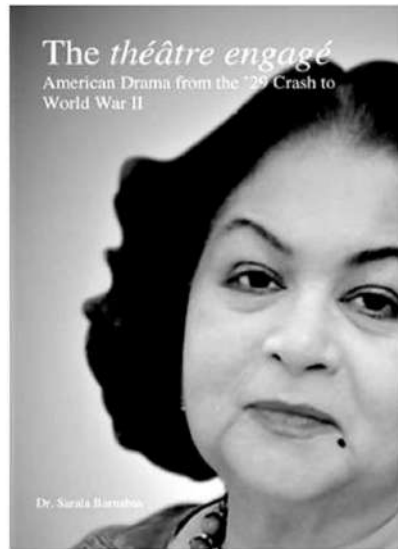
Dr. Sarala Barnabas
ISBN : 978-81-941253-3-4

Corporate **Entrepreneurship**

AUTHORS
Dr. M. Banumathi
Dr. C. Samudhra Rajakumar

Dr. M. Banumathi
Dr. C. Samudhra Rajakumar
ISBN : 978-81-939070-5-4

VIJANAN
COMMERCE AND MANAGEMENT
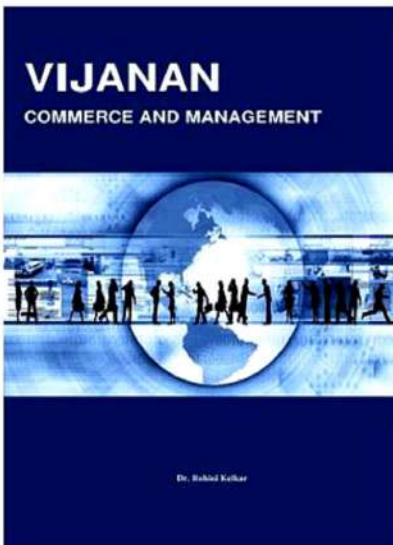
Dr. Rohini Kelkar

Dr. (Mrs.) Rohini Kelkar
ISBN : 978-81-941253-0-3

Recent Research Trends in
Management and Social Science

Dr. Tazyn Rahman

Dr. Tazyn Rahman
ISBN : 978-81-941253-2-7

VIJANAN
INFORMATION TECHNOLOGY

N. Lakshmi Kavitha
Mithila Satam
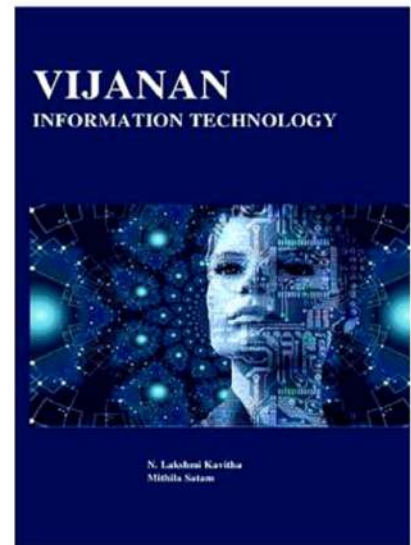
Dr. N. Lakshmi Kavitha
Mithila Satam
ISBN : 978-81-941253-1-0

Emerging Research
Trends In Management and Social Science

Dr. Hiresh Luhar
Prof. Arti Sharma

Dr. Hiresh Luhar
Prof. Arti Sharma
ISBN : 978-81-941253-4-1

Life of Slum Occupants & **Saving Pattern**

Dr. Hiresh S. Luhar
Dr. Ashok S. Luhar

Dr. Hiresh S. Luhar
Dr. Ashok S. Luhar
ISBN : 978-81-941253-5-8

Computerised Information System:
Concepts & Applications

Babita Kanojia
Dr. Arvind S. Luhar
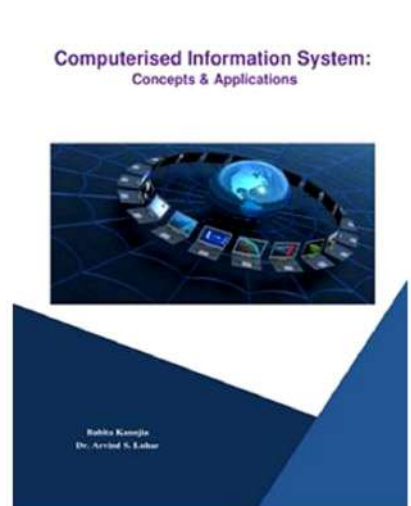
Dr. Babita Kanojia
Dr. Arvind S. Luhar
ISBN : 978-81-941253-7-2

SKILLS FOR SUCCESS

Dr. Sw Rajamonaharane
SK Nathan
ISBN : 978-81-942475-0-0

Witness Protection Regime
An Indian Perspective

Aditi Sharma

Aditi Sharma
ISBN : 978-81-941253-8-9

Self-Finance Courses:
Popularity & Financial Viability

Dr. Ashok S. Luhar
Dr. Hiresh S. Luhar

Dr. Ashok S. Luhar
Dr. Hiresh S. Luhar
ISBN : 978-81-941253-6-5

SMALL SCALE INDUSTRIES MANAGEMENT
Issues, Challenges and Opportunities

Dr. B. Augustine Arockiaraj

Dr. B. Augustine Arockiaraj
ISBN : 978-81-941253-9-6

SPOILAGE OF VALUABLE SPICES BY MICROBES

Dr. Kuljinder Kaur

Dr. Kuljinder Kaur
ISBN : 978-81-942475-4-8

Financial Capability of Students: An Increasing Challenge in Indian Economy

Dr. Priyanka Malik

Dr. Priyanka Malik
ISBN : 978-81-942475-1-7

THE RELATIONSHIP BETWEEN ORGANIZATION CULTURE AND EMPLOYEE PERFORMANCE: HOSPITALITY SECTOR

Dr. Rekha P. Khosla

Dr. Rekha P. Khosla
ISBN : 978-81-942475-2-4

A GUIDE TO
TWIN LOBE BLOWER AND ROOT BLOWER TECHNIQUE

Dilip Pandurang Deshmukh

Dilip Pandurang Deshmukh
ISBN : 978-81-942475-3-1

SILVER JUBLIEE
COMMEMORATIVE LECTURE SERIES 2019-SNGC

Dr. D. Kalpana
Dr. M. Thangavel

Dr. D. Kalpana, Dr. M. Thangavel
ISBN : 978-81-942475-5-5

Indian Commodity
Futures and Spot Markets

Dr. Aloysius Edward J

Dr. Aloysius Edward J.
ISBN : 978-81-942475-7-9

Correlates of Burnout Syndrome Among Servicemen

Dr. Rosemary Obiageeri Ekechukwu

Dr. R. O. Ekechukwu
ISBN : 978-81-942475-8-6

Advances in
Mathematical Sciences
(A Collection of Survey Research Articles)
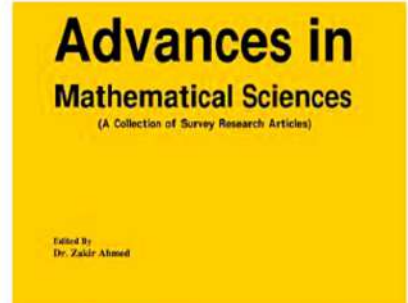
Edited By
Dr. Zakir Ahmed

Dr. Zakir Ahmed
ISBN : 978-81-942475-9-3

Fair Value
Measurement
Challenges and Perceptions

Dr. (CA) Ajit S. Joshi
Dr. Arvind S. Luhar

Dr. (CA) Ajit S. Joshi
Dr. Arvind S. Luhar
ISBN : 978-81-942475-6-2
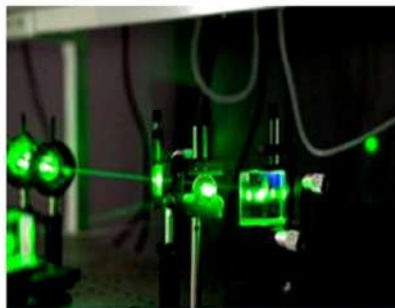
NONLINEAR OPTICAL CRYSTALS FOR LASER
Growth and Analysis Techniques

Madhav N Rode
Dilipkumar V Mehsram

Madhav N Rode
Dilip Kumar V Mehsram
ISBN : 978-81-943209-6-8
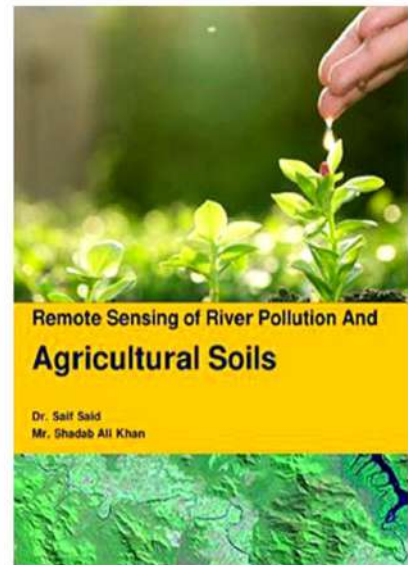
Remote Sensing of River Pollution And
Agricultural Soils

Dr. Saif Said
Mr. Shadab Ali Khan

Dr. Saif Said
Shadab Ali Khan
ISBN : 978-81-943209-1-3
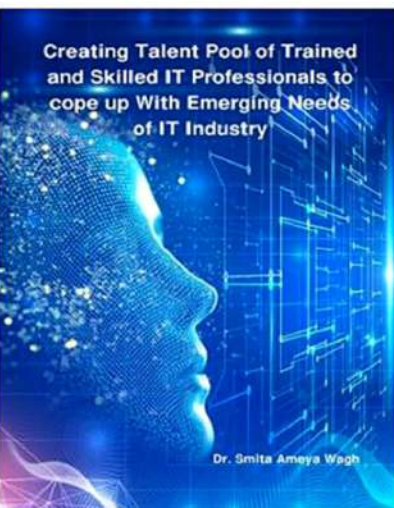
Creating Talent Pool of Trained and Skilled IT Professionals to cope up With Emerging Needs of IT Industry

Dr. Smita Ameya Wagh

Dr. Smita Ameya Wagh
ISBN : 978-81-943209-9-9
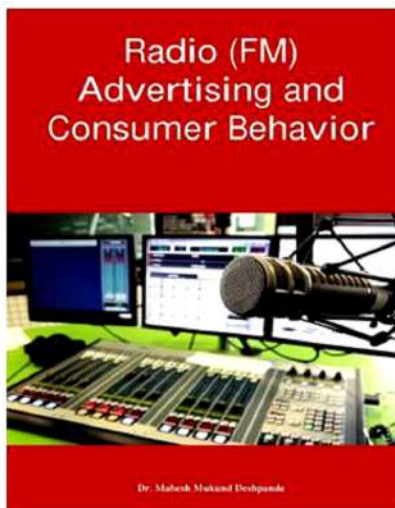
Radio (FM) Advertising and Consumer Behavior

Dr. Mahesh Mukund Deshpande

Dr. Mahesh Mukund Deshpande
ISBN : 978-81-943209-7-5
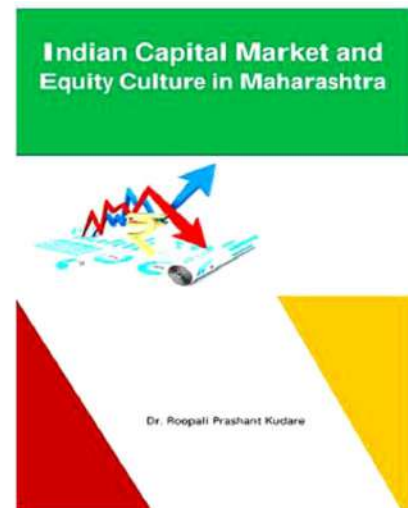
Indian Capital Market and Equity Culture in Maharashtra

Dr. Roopali Prashant Kudare

Dr. Roopali Prashant Kudare
ISBN : 978-81-943209-3-7

PRIMER ON WEED MANAGEMENT

M. Thiruppathi
R. Rex Immanuel
K. Arivukkarasu
ISBN : 978-81-930928-9-7
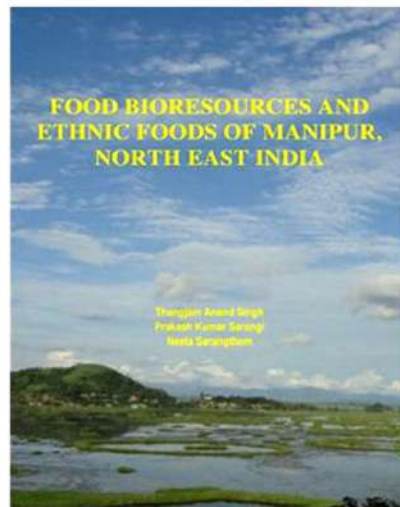
FOOD BIORESOURCES AND ETHNIC FOODS OF MANIPUR, NORTH EAST INDIA

Dr. Th. Anand Singh
Dr. Prakash K. Sarangi
Dr. Neeta Sarangthem
ISBN : 978-81-944069-0-7
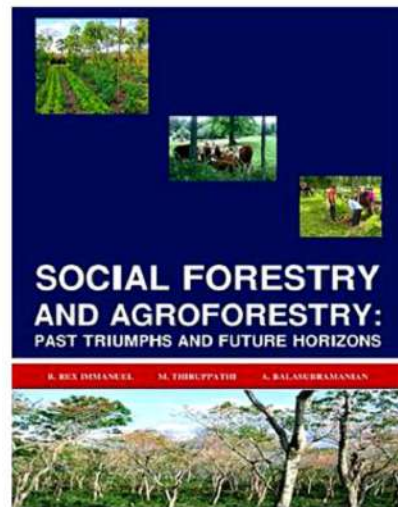
SOCIAL FORESTRY AND AGROFORESTRY: PAST TRIUMPHS AND FUTURE HORIZONS

R. Rex Immanuel
M. Thiruppathi
A. Balasubramanian
ISBN : 978-81-943209-4-4
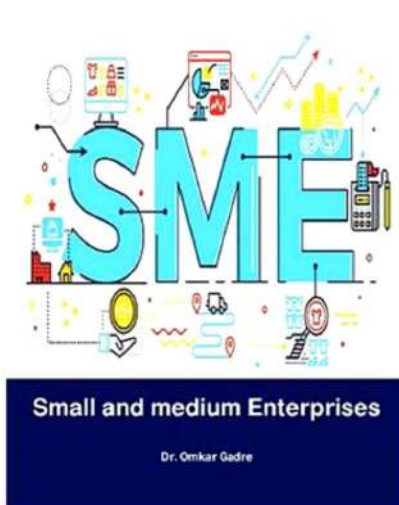
Small and medium Enterprises

Dr. Omkar V. Gadre
ISBN : 978-81-943209-8-2
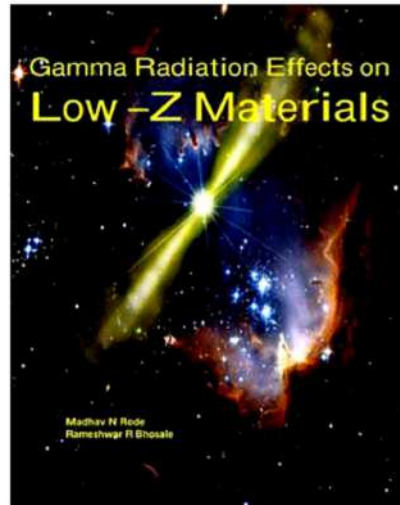
Gamma Radiation Effects on Low –Z Materials

Madhav N Rode
Rameshwar R. Bhosale
ISBN : 978-81-943209-5-1
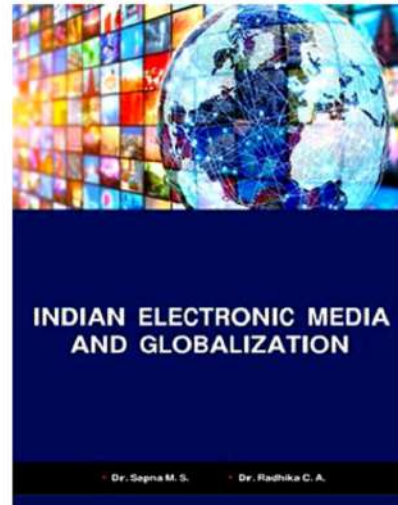
INDIAN ELECTRONIC MEDIA AND GLOBALIZATION

Dr. Sapna M S
Dr. Radhika C A
ISBN : 978-81-943209-0-6
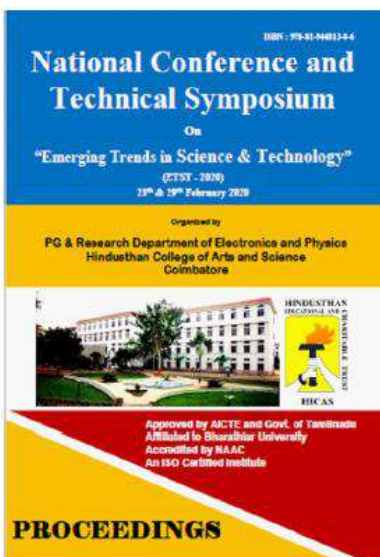
National Conference and Technical Symposium

Hindusthan College
ISBN : 978-81-944813-8-6
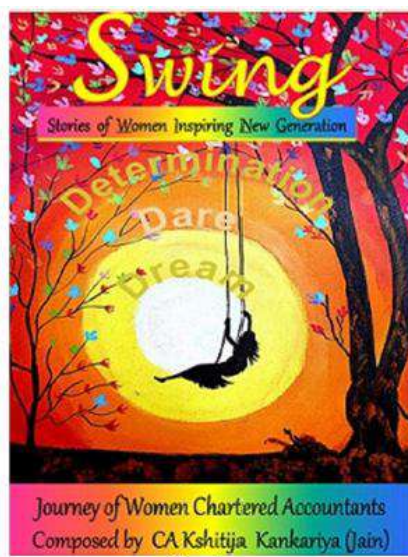
Swing

Stories of Women Inspiring New Generation

Journey of Women Chartered Accountants
Composed by CA Kshitija Kankariya (Jain)

Swing
ISSN: 978-81-944813-9-3
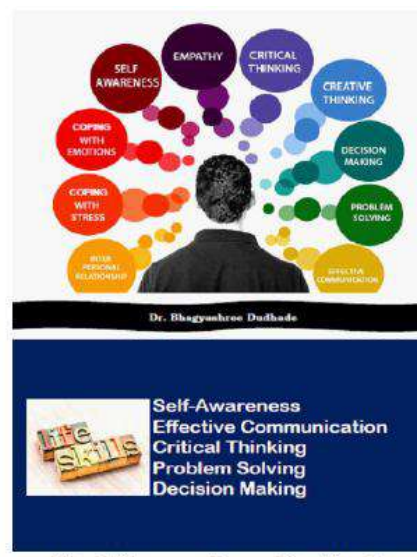
Dr. Bhagyashree Dudhade
ISBN : 978-81-944069-5-2

A Text book of unified syllabus of Practical Botany (B.Sc. 1st year)
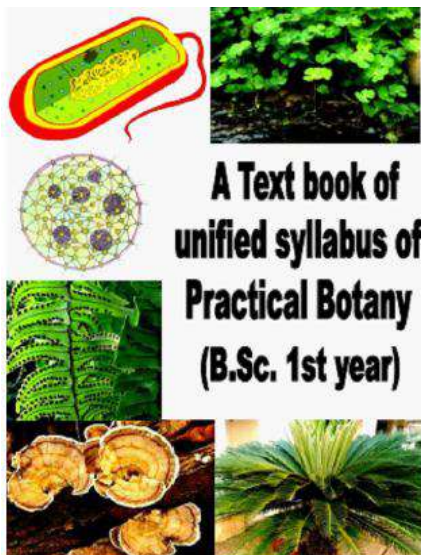
S. Saad, S. Bushra, A.A. Khan

S. Saad, S. Bushra, A. A. Khan
ISBN: 978-81-944069-9-0

Radiology: A Bridge in Biophysics
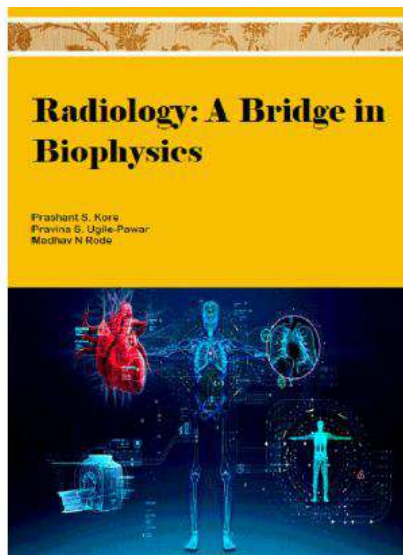
Prashant S. Kore
Pravina S. Ugile-Pawar
Madhav N Rode

Prashant S. Kore
Pravina S. Ugile-Pawar
Madhav N Rode
ISSN: 978-81-944069-7-6

Mixed Magnetic Oxides
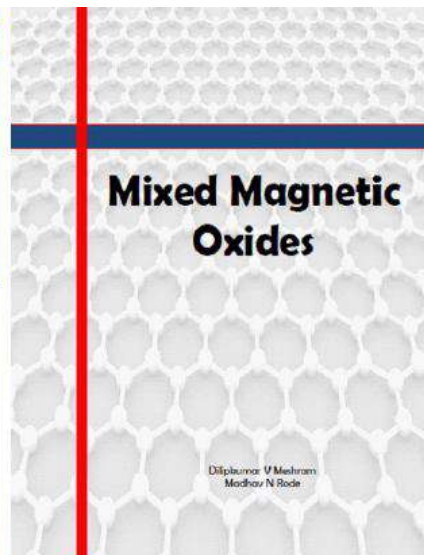
Dilipkumar V Meshram
Madhav N Rode

Dilipkumar V Meshram and Madhav N Rode
ISSN: 978-81-944069-6-9

QUALITY OF
WORK LIFE – A SERVICE PERSPECTIVE

Dr. Vijaya Lakshmi Pothuraju

Dr. Vijaya Lakshmi Pothuraju
ISBN : 978-81-943209-2-0

National Level Seminar
On
'E-Business: A Paradigm Shift in the 21ˢᵗ Century'
January 30ᵗʰ & 31ˢᵗ 2020

Organized by
Department of Commerce & Management

Sponsored by
Savitribai Phule Pune University, Pune

Kamala Education Society's
Pratibha College of Commerce and Computer Studies,
Accredited by NAAC with "B" Grade (CGPA 2.60)

PROCEEDINGS

Pratibha College
ISBN : 978-81-944813-2-4

STATE LEVEL SEMINAR
on
'Emerging Environmental Challenges
&
Its Sustainable Approaches'

7ᵗʰ & 8ᵗʰ, February 2020

Sponsored by
Savitribai Phule Pune University, Pune
(under Quality Improvement Program)

PROCEEDINGS

Organized by
Department of Environmental Science
Kamila Education Society's
Pratibha College of Commerce and Computer Studies,
(Accredited with NAAC "B" Grade)
Tel. (Off.) : 8600100942/45,020-65111411
www.pcccs.org.in

Pratibha College
ISBN : 978-81-944813-3-1

Women Empowerment
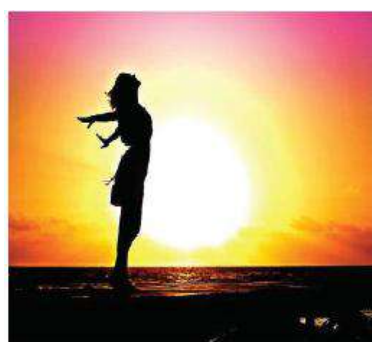
Dr. Tazyn Rahman

Dr. Tazyn Rahman
ISBN : 978-81-936264-1-2

Women Empowerment-
Awakening of a New Era
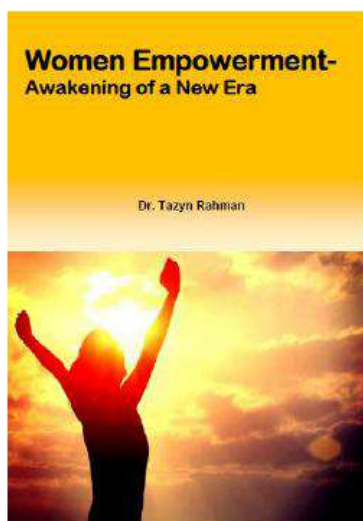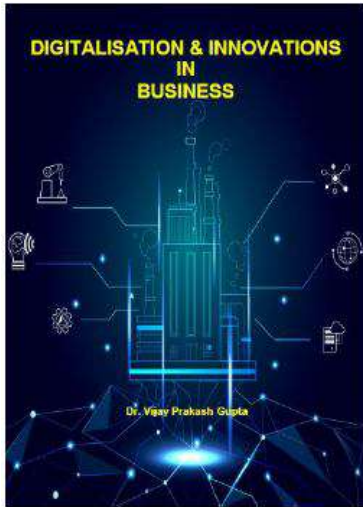
Dr. Tazyn Rahman

Dr. Tazyn Rahman
ISBN : 978-81-944813-5-5

Dr. Reni Sebastian

International Migration
of Nurses from Kerala:
Impact on Kerala Economy
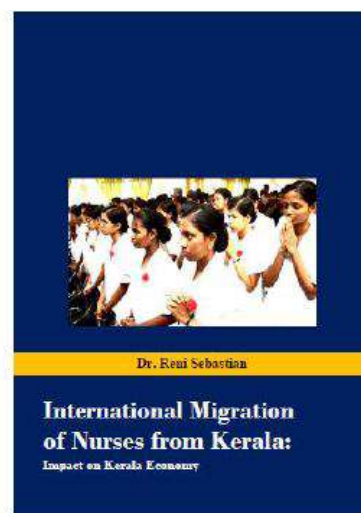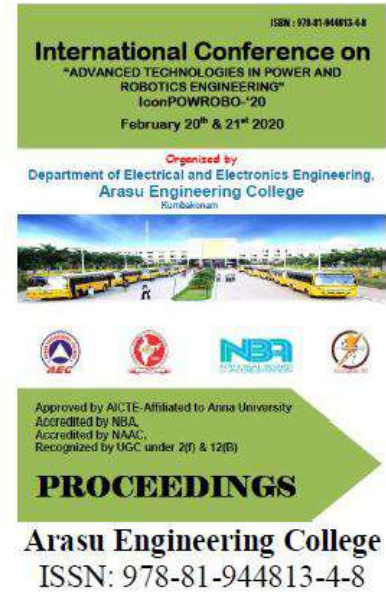
Dr. Reni Sebastian
ISBN : 978-81-944069-2-1

DIGITALISATION & INNOVATIONS IN BUSINESS

Dr. Vijay Prakash Gupta

Dr. Vijay Prakash Gupta
ISBN : 978-81-944813-1-7

ICT and Management Education

Dr. Deepa Vijay Abhonkar
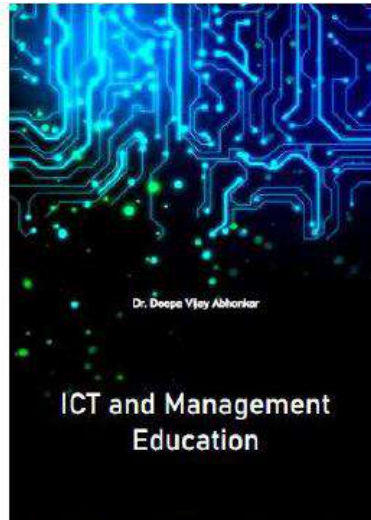
Dr. Deepa Vijay Abhonkar
ISBN : 978-81-944813-6-2

ISBN : 978-81-944813-4-8

International Conference on "ADVANCED TECHNOLOGIES IN POWER AND ROBOTICS ENGINEERING" IconPOWROBO-'20

February 20th & 21st 2020

Organized by
Department of Electrical and Electronics Engineering, **Arasu Engineering College** Kumbakonam

Approved by AICTE-Affiliated to Anna University
Accredited by NBA,
Accredited by NAAC,
Recognized by UGC under 2(f) & 12(B)

PROCEEDINGS

Arasu Engineering College
ISSN: 978-81-944813-4-8

MARKETING OF HANDLOOM AND KHADI PRODUCTS: STRATEGIES FOR ENHANCED EFFECTIVENESS

Anu Varghese

Dr. Anu Varghese
ISBN : 978-81-944069-4-5

Dr. Renuka Vanarse

ORGANIZATIONAL COMMITMENT AND JOB SATISFACTION
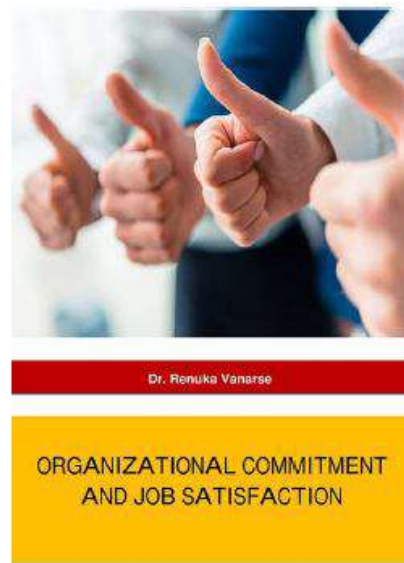
Dr. Renuka Vanarse
ISBN : 978-81-944069-1-4