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STUDY ON FINANCIAL INCLUSION & FINANCIAL LITERACY OF SBI INITIATIVE**¹Mr. Prasad M Supekar and ²Dr. Suryakant V Lasune**¹Research Scholar, Lala Lajpatrai College of Commerce & Economic Under University of Mumbai²Principal, K.V. Pendharkar College of Arts, Science and Commerce**ABSTRACT**

Developing economies are seeking to promote financial inclusion, i.e., greater access to financial services for low-income households and firms, as part of their overall strategies for economic and financial development. This raises the question of whether financial Literacy and financial inclusion are, broadly speaking, substitutes or complements. It is important to recognize that in the policy framework for development of the formal financial system in India, the need for financial inclusion and covering more and more of the excluded population by the formal financial system has always been consciously emphasized. In India, the focus of the financial inclusion at present is confined to ensuring a bare minimum access to a savings bank account without frills, to all. Internationally, the financial inclusion has been viewed in a much wider perspective. Having a current account / savings account on its own, is not regarded as an accurate indicator of financial inclusion. 'Financial Inclusion' efforts should offer at a minimum, access to a range of financial services including savings, long and short term credit, insurance, pensions, mortgages, money transfers, etc. and all this at a reasonable cost.

Keywords: Financial Inclusion, Financial Literacy, Enhances the financial scheme

❖ INTRODUCTION

The paper analyses the challenges involved in implementing financial inclusion in a vast, diversified country like India where financial literacy is extremely low and people fall into the clutches of loan sharks, ultimately pushing them towards drastic steps like suicide etc. The state run public sector bank, State Bank of India, one of the largest public sector banks across the globe, has worked out several strategies and leveraged advanced technologies to take banking and the financial system to every nook and corner of the country. They further supplemented their efforts by increasing financial literacy through setting up of several financial literacy centers across the country. Their continued focus on the development of innovative technologies enabled seamless merging of the rural populace with their urban counterparts while availing banking services. Financial Inclusion is Easy availability of all banking services in appropriate forms to all needy people and affordable cost, reasonable time and adequate quantity. Along with land labor and capital, Financial inclusion is equally important factor of sustainable and balanced economic and social development. Financial inclusion leads to empowerment of lower class, social inclusion and lowers inequality and brings inclusive growth. Enhance effectiveness of Govt. Direct Benefit Schemes. Financial illiteracy, rural and dispersed population, low income and high reach out cost are the key challenges.

❖ Role of Commercial Banks and the Way Forward

The Family Resources Survey indicated that in couple of year back there were 1.9 million households without a bank account of any kind, containing around 2.8 million adults. The Indian households can be broadly divided in to two main groups, rural and urban. To have effective financial inclusion, the banks have to always keep in mind these target-groups and bring them to banking fold in such a way that it is a win- win situation for both. Commercial banks can step in to augment financial inclusion in two ways (i) providing banking and other related services and (ii) providing non-banking services and support.

❖ Banking and Other Related Services

To ensure banking services are attractive to those with low incomes, banking products must have features that meet the needs of this group of consumers. For this, the banks have to develop:

- Basic Banking Account
- Low cost bill payment systems
- Technology driven products
- Bio-metric ATMs
- Pre-paid Cards
- Internet Kiosks

- Deposit accounts, which offer an overdraft and an easy route to debt.
- Affordable insurance products: For individuals and For business enterprise
- For Agri activities such as, weather/ cattle/ poultry
- ❖ **Retail Loans at All Centres with Simplified Documentation and Procedures Through:**
- Self Help Groups
- Micro Finance Institutions
- Loans to Small Medium Enterprise

❖ **Giving Advisory Services**

Once the banks have broadly decided on the range of products, they must customize it to suit the customer as per geographical area, method, and approach to be adopted.

❖ **REVIEW OF LITERATURE**

The literature review provides an overview of the key concepts, theoretical and empirical perspectives that are important to the thesis. A review of the available literature is predictable in order to locate the progress made in the concerned area and to identify the gaps to be filled in by the researcher. The empirical reviews present demand side and supply side reviews of the studies of the financial inclusive growth and activities with regard to Indian perspective in the context of financial inclusion.

Diganta K.R Mudoi (2012) in their “Study and Analysis of Financial Inclusion in India”, emphasise the need for strengthening self-help groups particularly Women SHGs in India in order to achieve effective financial inclusion.

Agarwal and Tarun (2016), in “An Analysis of the Twin Pillars of Banking in India: Financial Literacy and Financial Inclusion”, attempt to bring to the fore a dimension/correlation between Financial Literacy and Financial Inclusion and how customising financial literacy programmes in India according to the stage of life of targeted individuals is crucial for their effectiveness in order to achieve greater penetration of Financial Inclusion.

Meadows et al., (2004) argued that the focus narrows down mainly to the products and services provided by the mainstream financial service providers. But just providing the services for poor is different and need to design particular products or services at the affordable cost-effective products

Leeladhar(2006) stated that financial inclusion is delivery of banking services at an affordable cost to the vast sections of disadvantaged and low income groups. Therefore, unrestrained access to public goods and services is the sine qua non of an open and efficient society. Moreover, the banking services are in the nature of public good, it is essential that availability of banking and payment services to the entire population without discrimination is the prime objective of the public policy.

Objective of study:-

To trace the need for financial inclusion and Literacy level among the Public

1. To evaluate the measures, schemes and strategies of SBI banks, mainly of SBI to achieve financial inclusion.
2. To study the perception of the present and prospective beneficiaries of financial inclusion in Mumbai.

❖ **RESEARCH METHODOLOGY:-**

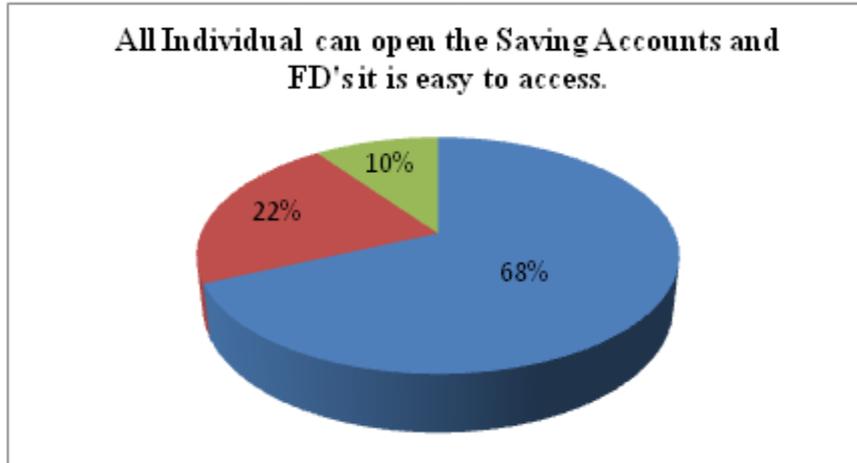
The study based on primary research and also related to the analysis of Financial Inclusions of SBI and literacy about the Scheme. To conduct this study 60 investors have been selected in Mumbai city by sampling method. Questionnaire has been used for collecting the data.

All data required for analytical study has been acquired from primary sources, Even Secondary sources data have also been measured based on information available on Journal, Publication, and Government websites, banking website. Data from primary source has been collected by questionnaire method. The Researcher has targeted population belongs to Mumbai city and deliberates individual investor as a sampling unit.

❖ **FINDINGS**

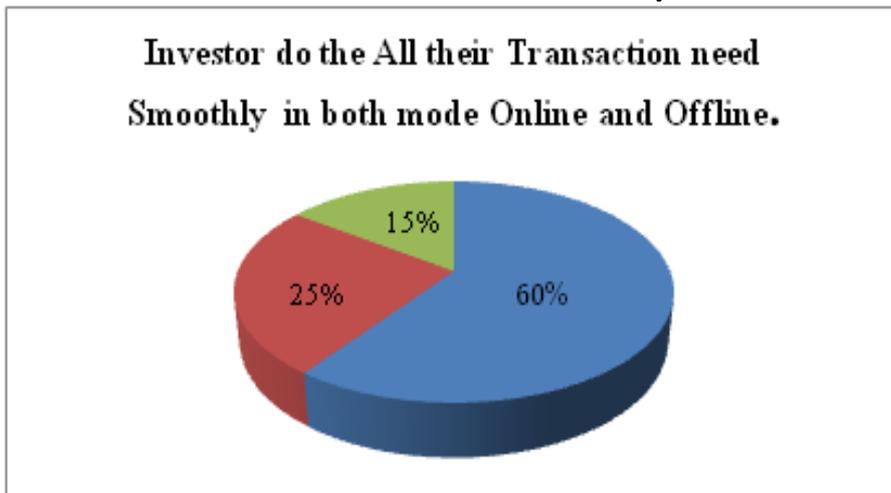
Here the Researcher has given the some details about financial inclusion/scheme about the SBI

Figure- 1 All Individual can open the Saving Accounts and FD's it is easy to access.



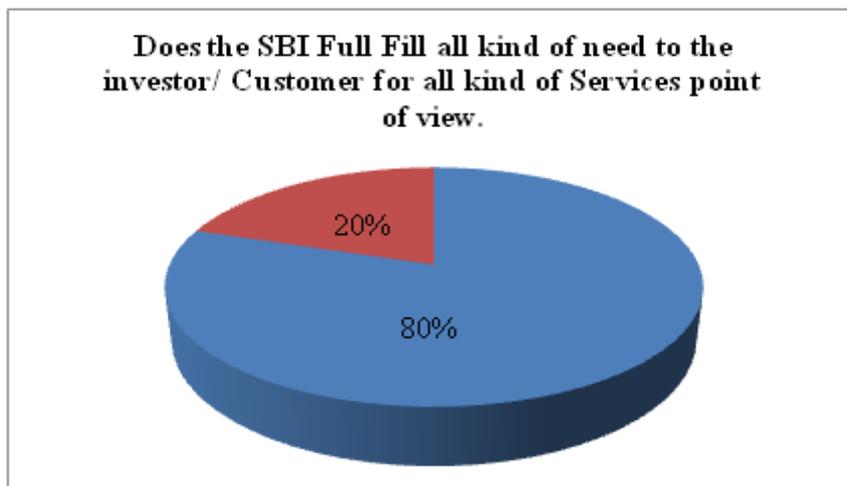
The Researcher taking the 60 responded out of 41 Responded that is 68 % can open the saving accounts and that easy to access, but other side 13 Responded that is 22% are open the accounts but some extend difficult to getting access of saving account. Out of 60 Responded 6 responded that is 10 % not open their FD in SBI because of Low rate of Interest

Figure-2 Investor does the access their all transaction needs Smoothly in both mode Online and Offline.



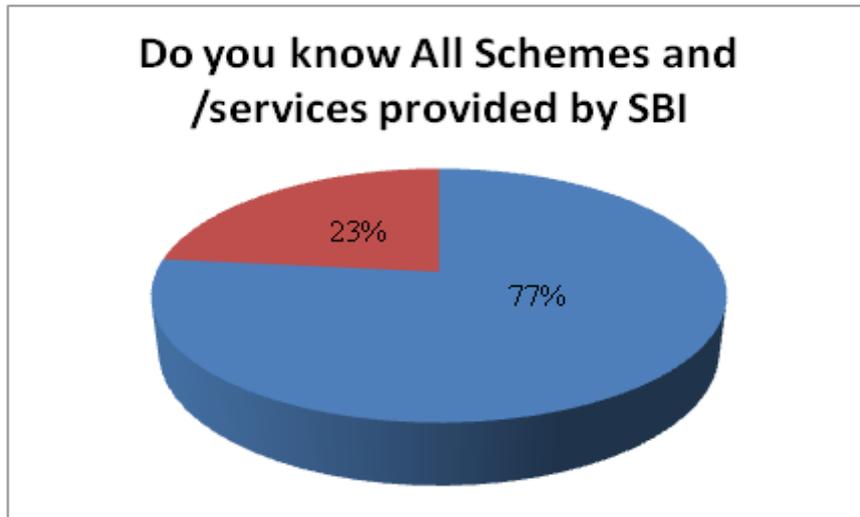
The Researcher taking the 60 responded out of 36 Responded that is 60 % can do their transaction smoothly both the mood. But other side 15 Responded that is 25% are prefer to go in the branch. But some extend 9 Responded that is 15% are facing the problem in online as well as in offline mode

Figure: 3 Does the SBI Full Fill all kind of need to the Investor/ Customer for all kind of Services point of view.



From the above diagram the researcher gets to know SBI Full Fill the 80% Responded all kind of needs about the services, rest of that is 20% Responded says that there will be difficult to get the services from the SBI.

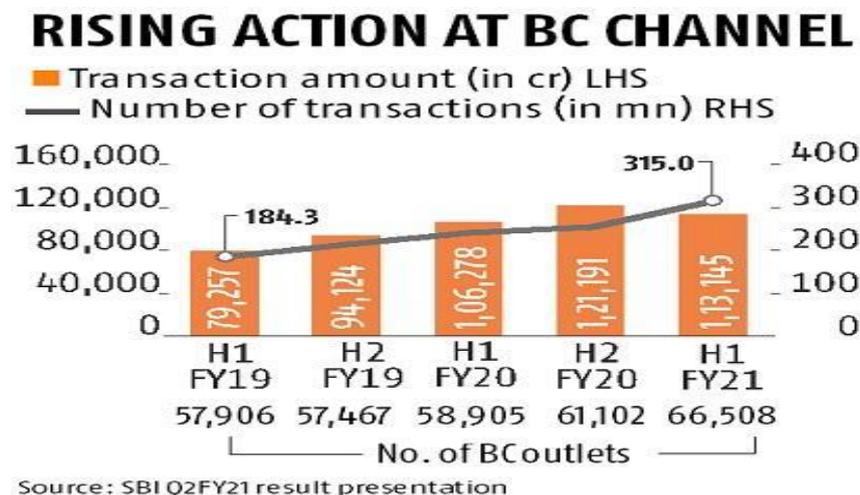
Figure: 4 Do you know All Schemes and /services provided by SBI



The Above Diagram shows that there are 46 Responded that is 77 % are known about the all Kind of Schemes which is provided by SBI, apart form that the 14 Responded that is 23% that not aware about the many services which is provided by the SBI.

The Below chart showing that how the increasing the number of Transaction as well increasing the Business Correspondence, SBI insure that the financial inclusion increasing by 20 % in upcoming month.

India has made remarkable progress in financial inclusion metrics, even beating China, a report by the State Bank of India (SBI) has said. It also said that the number of bank branches per 100,000 adults in the country has increased from 13.6 in 2015 to 14.7 in 2021, which is higher than countries like Germany.



❖ **CONCLUSION**

Financial inclusion is not a one time effort; it is an ongoing process. It is a huge project which requires concerted and team efforts from all the stake holders – the Government, financial institutions, the regulators, the private sector and the community at large. From the sporadic attempts of today dispersed across the nation, it should gather momentum and grow in geometric proportions and develop into a focused and effective movement. If this is to be achieved, it requires the passionate involvement, dedication and commitment of all stake holders. It requires a major mindset change in the minds of every individual involved – banker, bureaucrat, regulator et al, and, therefore, creating awareness at all levels. At the same time, the role of technology in the whole scenario cannot be undermined either. It has to be admitted that today, more than even before, technology plays a vital role in bringing about integration in society of all social and economic classes. Accessibility, affordability, appropriateness and benefits determine how deep financial inclusion penetrates the social fabric of the village. Financial inclusion can empower even the poorest person and bring about a dramatic change in his fate.

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DETERMINANTS OF INTELLECTUAL MANAGEMENT AND SUSTAINABLE DEVELOPMENT AS A CHALLENGE AND WAY OF FORWARD: AN EXPLORATORY INVESTIGATION**Dr. (Mrs.) Satinder Kaur Gujral**

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ABSTRACT

Intellectual Management (IM) and Sustainable Development (SD) has been studied to investigate the influence and relationship between them. To reach the purposes, 283 relevant collected data from 30 organizations were utilized for result analysis while a self-administered survey instrument on Intellectual management and Sustainable Development were distributed through simple random sampling technique by selected representatives. A perfect positive relationship between IM & SD and a strong positive influence of IM on SD in the different universities and banking organizations have been found in the findings from the analysis of descriptive and inferential statistics. The findings and future directions definitely proposed to think for taking tactful decisions, initiatives with intellectual strategies to face 21st century's challenges and obstacles by the concerned academically and managerial authorities at the educational and banking sector in Thane. The real observations & experiences suggests that an 'emergent intellectual problem solving team' is recommended to reduce problems of bureaucracy, system-loss, session-jam, biasness of concerned authorities, religious & localization discrimination and solve any kind of problem without wasting valuable times of students at educational sector and customers or clients at financial institutions of Thane .The paper has minimum limitations but a great theoretical implication in the field of literatures and practical implications for the academicians, bankers, entrepreneurs, professional and other business holders or industrialists

Keywords: Intellectual Management, Strategic Planning, Conflict Handling, Strategic Leadership, Intellectual Controlling and Sustainable Development.

1. INTRODUCTION

In the age of competitive, crudest and dynamic working environment, it is very tough to face challenges and obstacles to establish and survive of an organization successfully. So, it is very important to do strategic working plan, decision making, proper monitoring and efficient controlling system for employees and intellectual managerial body who can design a strategic working plan and conduct the organizational activities with intellectual capabilities which can ensure a sustainable development for an organization, society as well as country. The present paper conducted to identify the link and influence of intellectual management (IM) on sustainable development (SD) - where Strategic Planning (SP), Strategic Innovation (SI), Conflict Handling (CH), Problem Solving Approach (PSA), Strategic Leadership (SL), Intellectual Controlling (IC) are the independent variables under Intellectual Management and the dependent variables Sustainable development concerned with employee's, organizational, environmental, economic and social development of a country.

Basically, concept of Intellectual Management concerned with the terms of 'intellectual' and 'management'. The term 'intellectual' adopted with a person who has intellect or mental capability to think, research and reflect a proper decision, suggest an efficient solution against a problem from the real perspective of an organization, society as well as nation. Again, management of an organization is the process of establishing objectives and goals of the organization periodically, designing the work – system and the organization structure, and maintaining an environment in which individuals, working together in groups in combination with capital equipment and current assets (working capital), accomplish their aims and objectives and goals of the organization effectively and efficiently (Rao, 2016). Thus, Barnov et al., (2008) interpret that Intellectual Management (IM) procedures involved with logical system and neural networking stages of human being where logical system concerned with systematic work plan development, maintaining proper rules and regulations, conducting & monitoring all of the activities intellectually; and neural networking approaches engaged with various important ideology such as human capital, intellectual capital, knowledge management, rational capital, intellectual property etc. for developing an efficient strategic planning, strategic innovation, conflict handling ability, problem solving approach, strategic leadership and intellectual controlling to establish an organization in an expected position.

Therefore, Intellectual Management can be defined as the process of making people efficient, contributive cognitive, devotees, thankful for talent academic & managerial activities with effective utilization of concerned resources by strategic-work-plan & decision making, strategic leadership & intellectual controlling, regular monitoring & implementation to achieve pre-selected objectives and goals.

Development generally concerns with the economic growth of a country i.e., when a country's productive capacity increases then it will be developed and this productive capacity involved with employee development, organizational development and social development too. The Sustainable Development (SD) indicates that the lessons of ecology can, and should, be applied to economic processes and it encompasses the idea in the world conservation strategy, providing an environmental rationale through which the claims of development to improve the quality of life can be challenged and tested Sustainable Development (SD) concerned with the procedure of development for present and next generation to meet the necessity of the people with efficient resources arrangement, pre-cautions to face obstacles and challenges which will develop organizational, environmental and socio-economic condition of a country.

Educational sector is the key place of building, developing and preparing a human being as an intellectual resource for the society as well as nation. Because without education a human being not only an illiterate person but also treated as a blind man for society. Thus for preparing a delightful human being (who can take intellectual decision, can manage an organizational activity intellectually) – the essentiality of educational sector is irrefutable. On the other side banking sector has a great role in the total economy of Thane. Though the main activities of banking institutions are to collected and lending money, this financial sector also invest money for the development of Thane. To think about the great contributive role of educational sector and banking sector where IM is preferably applicable for sustainable development in Thane; authors decided and encouraged to conduct the present study.

2. LITERATURE REVIEW

As the Intellectual Management (IM) is implicated with Sustainable Development (SD) and these are vital issues for current competitive & complex workplace environment, thus a brief on reviewed literatures is necessary to demonstrate.

2.1 Literature Review related on Intellectual Management (IM)

Milov, Suslov and Kryukov (2011) focused on Intellectual Management based phases regarding construction of workplace environment and information – management systems at some organizations and they emphasized on the approach of 'designing mixed intellectual decision support system for an industry. As IM concerned with some components of intellectual capital management and knowledge management for the sustainable development, Wiig (1997) suggested that progressive managers need to work strategically with intellectual capital management and knowledge management with technological- advancement for the stable economic development of a society.

Again Petty and Guthrie (200) conducted a research study on the integration of capital, knowledge and intellectual management to think about the crucially of risen economy and they decided that for the development of economy, management, technology and society; information-technology based society & workplace and knowledge-based economy with strategic innovation should be established.

Nerur, Rasheel and Natarajan (2008) examined intellectual framework of the strategic management area through co- citation analysis during the period of 1980 – 2000 using multi-techniques of data analysis which provides a great insight in the field of IM with a structural strategic view of management. Culnan (1986) suggested for the development of theory-based intellectual management which might be interpreted a link between MIS- research advancement and organizational effectiveness during the period of 1972- 1982 involving theoretical enhancement of IM. Besides that, an analysis on the application of IM has been recommended during the period of 1980- 2000 which concerned with the parts of intellectual management (SP, SI, CH, PSA, SL and IC) research at different organizations strategically.

From the brief of literature, it is clear that Intellectual (IM) can be referred as a process that involved with intellectual human capital management, knowledge management, intellectual MIS with all of the management and strategic management tools (such as SP, SI, CH, PSA, SL and IC) to establish an organization successfully and for facing dynamic challenges and competitive environment in a market.

2.2 Literature Review related to identified components of IM

As the IM refers that the managerial people or corporate executive bodies have to perform managerial activities such as Strategic Planning, Strategic Innovation, Conflict Handling, Problem Solving Approach, Strategic Leadership intellectually and Intellectual Controlling for reaching organization's mission and vision with the accomplishment of objectives and goals. Again though IM is concerned with a number of functional activities, this study is conducted by some of them and the included components are SP, SI, CH, PSA, SL and IC.

2.3 Literature Review related to Sustainable Development (SD)

The term sustainable development was used at the time of 1970s and since then it has become the trademark of international organization, dedicated to achieving environmentally benign or beneficial development SD is a complex concept that implies the integration of three systems: ecological, economic and social which seeks a compromise between natural environment and pursuit of economic growth that increase the material standard of living of the poor which could be quantitative measured; it maintains that the stock of overall capital assets remains constant or rises over time (Islam, 2012).

The concept of SD is an attempt to combine growing concerns about a range of environmental issues with socio-economic issues for intellectual and organizational development and it has the potential to address fundamental challenges for humanity, today and tomorrow (Hopwood, Mellor, & O'Brien, 2005). Another paper examined the conceptual history of SD from 1987 to today which argued that superficial consensus has characterized much debate on the series of SD and it has a great impact on biology, natural science and environmental justice and it is lucidly specified that the issues of global environmental justice are very essential for sustainable development due to the demand of re-engagement with social consequences in the 21st century (Redclift, 2005).

SD has emerged as the recent development catchphrase that have an effect on governmental and nongovernmental organizations and it demonstrated a great role in the context of international business, agriculture forestry, political extent as well as intellectual rigor and clarity (Lele, 1991). The SD policies can increase environmental awareness, growth for the consumers & organizations, can improve its environmental performance on leading exponents of the academic & business field by the various components of intellectual management with appropriate applications and implementation today.

Lastly, though so many research studies have been conducted separately on the different variables of IM and SD, no research study is found on IM and SD in the context of Thane This gap has induced the authors to conduct the current study.

3. RESEARCH OBJECTIVES AND PRESUMED HYPOTHESES

The major research questions (RQ) of this paper are:

RQA- What is the association between IM and SD? And

RQB- Does the IM influence SD?

To reach the answer of these research questions, two major research objectives (RO) have been set for this paper:

Research objective one (RO1) - is to explore the relationship between IM and SD and

Research objective two (RO2) - is to investigate the influence of IM on SD.

Based on objectives, subjective theme and review of the literature, a hypothetical model has been delineated in below;

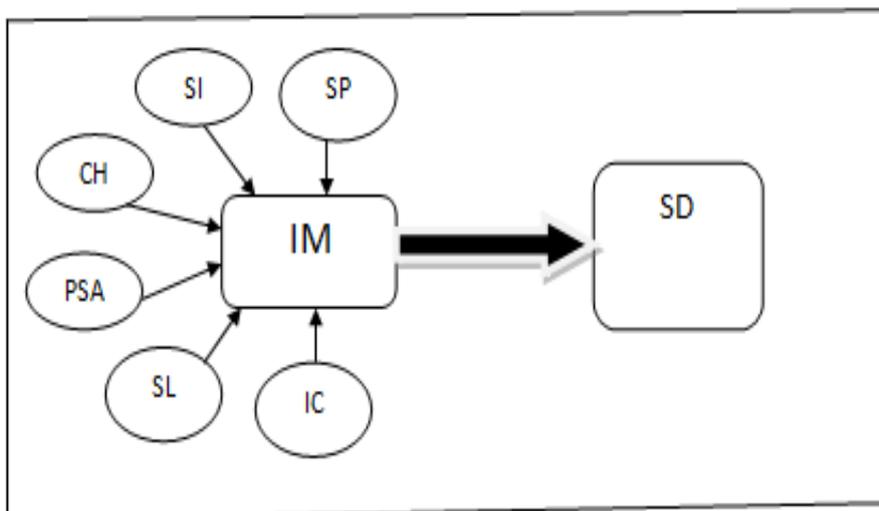


Figure - 1: A conceptual hypothetical model of IM and SD
Source: Authors' own contribution

Research Hypotheses: Figure-1 illustrates the principal hypotheses may be formed as follows:

H0: There is no relationship between IM and SD.

H1: There is a significant relationship between IM and SD

On the basis of principal hypotheses and conceptual hypothetical model of IM and SD, the following supporting hypotheses have been developed to conduct the present study.

H1a: SP has a positive influence on SD

H1b: SI has a positive impact on SD

H1c: CH has a positive effect on SD

H1d: PSA has a positive influence on SD

H1e: SL has a positive association with SD

H1f: IC has a positive effect on SD

4. RESEARCH METHODS

The research methods described under following headings:

4.1 Research Design and approach

The paper adopted with exploratory and descriptive research design that fall in the philosophy of positivism and pragmatism with the research assumption of ontology. A deductive approach and a quantitative data analysis technique were used to examine the result of the study.

4.2 Technique of Data Collection and Response Rate

100 questionnaires were distributed using single representative from each of 10 organizations (3 Universities, 10 banking organization) and each representative distributed & collected data from 10 respondents in each of 10 organizations and the representatives were randomly selected by the authors. As the data has been collected using simple random sampling method (probability sampling technique), thus maximum 97 (97%) questionnaires have been returned responses have utilized for data analysis for findings and rest of the questionnaires have been rejected for non- returning, non-response and for some error and 3% non-returned and 3% non-response rate is very much normal for a research study. Again 97% response rate is highly acceptable to conduct a study. The teachers from different Universities and bankers from different Banks were the respondents of this study.

4.3 Data Analysis

All of the reasonable data had been measured using SPSS statistics 16.01 database for testing result with quantitative data. And the data have been measured with numeric value against each item of the instrument by 7- point Likert scale ranging from 7 (strongly agree) to 1 (strongly disagree).

The subjective or statement based data (from survey instrument) have been analyzed by descriptive and inferential statistics (correlation and regression analysis) for investigating the association and influence of IM and SD.

5.1 Theoretical and Practical Implications

The study has been provided a great theoretical implication in the field of literatures and practical implications for professionals & intellectual managers, business leaders at the banking and other service & business sectors; academicians, researchers as well as teachers at the educational sector in Thane. Additionally, practices of Intellectual Management for Sustainable Development is significantly applicable in case of agriculturist, economist, ecologist, sociologists and executive organizational concerned for facing challenges and forwarding a society as well as nation.

CONCLUSION

The study found a strong positive association between IM and SD and a significant positive influence of IM on SD with bivariate correlation and linear regression analysis of various variables of IM and SD which means organizations success depends on application and implementation of different initiatives of IM for SD in educational and banking sector in Thane. Thus if the academically, professional and managerial activities performed with intellectual capabilities and initiatives, it may be possible to handle recent challenges and pitfalls efficiently by which sustainable development can be ensured in the society of Bangladesh as well as global.

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IMPACT OF ELECTRONICALLY MAINTAINED COMMERCE, MANAGEMENT, HOSPITALITY, EDUCATION ON INDIAN ECONOMY

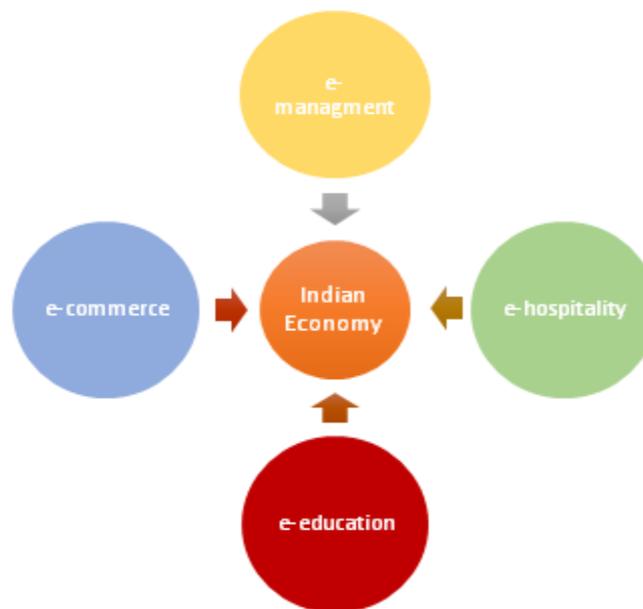
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ABSTRACT

Electronically maintained commerce, management, hospitality, education have effect on our Indian economy at large. Electronic world has made trade, commerce, tourism, hospitality, education, export, import, travel, communication etc. all simple, possible, feasible, reachable, attainable, and workable thus raising our Indian Economy and in fact global economy. Attention need to be paid more now towards e-education for it to evolve more comparatively to others like commerce, management, hospitality. Technology has played an essential role in keeping our economy and society functioning during this crisis and it can play an even bigger role in driving a sustainable economic recovery. Let's enjoy the fruits of this so called 'Electronically maintained'!

Keywords: e-commerce, e-management, e-hospitality, e-education



INTRODUCTION

Electronically maintained commerce, management, hospitality, education all of these influence Indian economy. Technology has played an essential role in keeping our economy and society functioning during this crisis and it can play an even bigger role in driving a sustainable economic recovery.

Commerce – Electronically maintained commerce provides time and effort, helps economic growth, and improves exports and production. E commerce directly affects structure of markets , economic variables, growth rates, leading to high wages, high standards of living .It helps to increase trade across the globe, creates new opportunity for investors from all over the globe.

E-commerce has transformed the way business is done in India. The Indian E-commerce market is expected to grow to US\$ 111.40 billion by 2025 from US\$ 46.2 billion as of 2020. By 2030, it is expected to reach US\$ 350 billion. By 2021, total e-commerce sales are expected to reach US\$ 67-84 billion from the US\$ 52.57 billion recorded in 2020. India's e-commerce market is expected to reach US\$ 111 billion by 2024 and US\$ 200 billion by 2026. Much of the growth for the industry has been triggered by an increase in internet and smartphone penetration. As of July 2021, the number of internet connections in India significantly increased to 784.59 million, driven by the 'Digital India' programme. Out of the total internet connections, ~61% connections were in urban areas, of which 97% connections were wireless.

- **Hospitality**- hospitality has become so easy and comfortable. Now if we talk of hospitality industry. It's equally enjoying the fruits due to e commerce, use of ICT e hospitality has made their growth resulted in economy rise. If we to talk of hospitality businesses are using user friendly websites for e booking, e-comfort to their customers. This contact less have made now all best service providers. Hotels airlines, restaurants, bus travels others can easily contact their customers. Customers equally take the best benefit

from the facility available. Both win-win sharing. For example, More real experience would be the boon of technology, that helped more in post covid 19 pandemic to delivery contactless hospitality. Yes what about the illiterate whatever proportion, yes they can surely make use of offline and even travel agents, their offices are available for them. Even when to talk, the mouse touch tip of finger  to scroll on mobile and do bookings etc., compare bookings, compare various service providers all so disability friendly turning boon to them.

- **Management** - Even if comes to management of all types whichever is included. Be it event management, be it class room management, be it human resource management, sales management, marketing management, manufacturing management, retail management,, research and development management, supply chain management, financial and accounting management, project management, knowledge management. All administration, management has become on click of mouse or click on the buttons on the mobile. All the branches of commerce- trade, transport, distribution, insurance, communication, ware housing, banking.

Education: Education has now entered the homes. Now a day's education is online. Covid 19 pandemic has given an opportunity to all to make education become go online. In fact everything wherever was possible became electronic-education yet to evolve, more reformation and more development is needed. Like others, management, commerce, hospitality keep upgrading technology, processes to stay competitive, the potential education industry needs to evolve. The industry is shifting and the online education market has already been established by thought-leaders taking charge in the tension within the education space. This is only the beginning of a potential trillion dollar industry that needs even more attention by larger educational institutions. Only online education has the ability to scale to the overwhelming demand of students and professionals around the world

A small scale study was carried out to seek the opinion of the common like we us on the impact of electronically maintained Commerce , Management, hospitality, education and for the same a small questionnaire with just 10 items (<https://forms.gle/m32bBYgK4hM4ZxFh7>)was prepared on a 5 Likert scale to study the opinion of the common people. The study was carried out on a small sample of 120 people all over from India and the findings are as follows:

- Nearly 60% agreed that lesser the physical movement more the monetary returns.
- The response was neutral when asked about whether reduction in travelling expenditure.
- 50% responded that electronically maintained Commerce , Management, hospitality, education is disability friendly adding to revenue generation
- 60% agreed Prevention of wastage of physical resources (viz Light, paper, electricity etc.). there are many where we cannot cut down physical resources
- 50% agreed that e-education more revenue generation. E –education need to evolve.
- 40% only agreed payment process less cumbersome thus rise in revenue.
- 50% responded e-management of all kinds resulting more rise in economy
- 60% agreed e-hospitality is leading to more revenue generation from it.
- The response was neutral when checked for 'Economy rise due to flexibility in attainment of education'.
- 60% agreed trade accelerated due to e-commerce management resulting rise in economy

Electronically maintained Commerce, Management, hospitality, education SO Disability friendly!

So now even the disabled, who had lost hoped or single customer have tried fetching to e commerce, e education just by sitting at home and on tip of the finger. People now a days we see so much on social media and this advertising, awareness offers, marketing on social media that too contactless has raised our economy. Directly contact fewer connections all these customers make best use of and turn into maximum generation of revenue. Indian economy surely rising comparatively turned a boon.

CONCLUSION

Electronically maintained Commerce, Management, hospitality, education on Indian Economy in fact will and has impacted , benefitted the world economy, not only Indian economy. Let's benefit form electronically maintained Commerce, Management, hospitality, education! And rise our Indian Economy.

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AN EVALUATION OF INVESTMENT SCHEMES OF INDIA POST**Rahul Balasaheb Pawar**

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ABSTRACT

The India Post has played an important role in the socio economic development of the country by connecting the remotest parts of the nation. The main activity of the Department is processing, transmission and delivery of mails and money remittance across the country. The India Post provides a wide range of services including banking and insurance. Further, it also provides different investment schemes for the common people. The present study is conducted with an objective to explore the different investment schemes offered by the India Post and evaluate its tax benefits. The data required for the study is collected from the secondary sources such as books, magazines, annual reports, websites, articles, thesis and dissertations.

Keywords: Saving Deposit, Recurring Deposit, Time Deposit, National Savings Certificate, Kisan Vikas Patra, Sukanya Samridhi Account, Monthly Income Scheme

I. INTRODUCTION

The India Post has played a very important role in the economic development of the country as it has been a backbone of country's communication for more than 150 years. The India Post has a largest network in the world with 1,56,721 post offices. The first Post Office in India was set up in the Kolkata city in the year 1727.

The Department of Post is a part of Ministry of Communication. The Postal Services Board (PSB) is the apex management body of the Department of Post. The postal network in the country is divided into 23 Postal Circles for the administrative convenience. Apart from 23 Postal Circles, there is a separate wing called Army Postal Services (APS) to take care of postal needs of armed forces.

The post offices in the country are classified into Head Post Office, Sub Post Office and Branch Post Office. The Head Post Offices are generally located in the important towns and cities generally at district level. The Sub Post Offices are the departmental offices located in both urban and rural areas. The Branch Post Offices are generally located in the rural areas.

II. OBJECTIVES OF THE STUDY

The present study intends to achieve the following objectives:

- 1) To overview the background of India Post.
- 2) To explore different investment schemes of India Post.
- 3) To evaluate the tax benefits of different investment schemes of India Post.

III. RESEARCH METHODOLOGY

The present study is descriptive in nature. This study is totally based on the secondary data. The data required for the study has been collected from secondary sources such as books, websites, reports, journals, thesis and dissertations.

IV. INVESTMENT SCHEMES OF INDIA POST

India Post offers different investment schemes for the people. These are;

- 1) **Post Office Savings Account:** Saving Account is one of the most popular investment avenues for the Indian individual investors. Just like a bank, an individual can open a saving account in the post office. Post Office Saving Account can be opened by a single adult individual, two adult individuals, a guardian on behalf of minor, a guardian on behalf of person of unsound mind and a minor above 10 years in his own name. An individual needs to deposit minimum amount of Rs 500 to open an account and needs to maintain a minimum balance of Rs. 500. An interest rate of 4% p.a. is applicable on the deposits in this account. Along with post office saving account, an individual can apply for different facilities such as; cheque book, ATM card, mobile banking, Atal Pension Yojana (APY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Pradhan Mantri Jeevan Jeevan Jyoti Bima Yojana (PMJJBY) etc. The interest earned from this account is exempt up to Rs 10,000 p.a.
- 2) **Post Office Recurring Deposit Account:** The second investment scheme of India Post is Recurring Deposit Account. This account can be opened by single adult individual, two adult individuals, a guardian on behalf of minor, a guardian on behalf of person of unsound mind and a minor above 10 years in his own name. An individual can deposit a monthly minimum amount of Rs 100 and above in the multiple of Rs

10. An individual can get an interest @ 5.8 % p.a. compounded quarterly. An individual can get a loan up to 50 % against the amount available in the account, after completing 1 year / 12 installments without default. The maturity period of this account is 5 years / 60 months from the date of opening the account. This account can be extended for a further period of 5 years. This account can be closed prematurely after 3 years from the date of account opening by submitting prescribed application form at concerned Post Office. An individual can get a maximum deduction up to Rs. 1,50,000 under section 80 C of the Income Tax Act for the investment made. However, the interest earned on this account is taxable.
- 3) **National Savings Time Deposit Account:** This account can be opened by a single adult individual, two adult individuals, a guardian on behalf of minor, a guardian on behalf of person of unsound mind and a minor above 10 years in his own name. An individual can open this account for a period of 1 year, 2 years, 3 years or 5 years. On maturity, depositor can extend the time deposit account for another tenure for which account was initially opened. An individual gets an interest @ 5.5 % p.a. for a time deposit of 1 year, 2 year and 3 years. An interest @ 6.7 % p.a. is paid for the time deposit made for a period of 5 years. The minimum deposit allowed in this account is Rs 1,000. The interest on such account is calculated quarterly but is payable on annual basis. The interest earned is taxable. An individual can get a maximum deduction up to Rs. 1,50,000 under section 80 C of the Income Tax Act for the investment made in 5 years Time Deposit A/c.
- 4) **National Savings Monthly Income Account:** This account can be opened by a single adult individual, two adult individuals, a guardian on behalf of minor, a guardian on behalf of person of unsound mind and a minor above 10 years in his own name. This scheme is designed for those individuals who want to earn monthly income from their investment. An individual can deposit in the multiples of Rs 1,000. The maximum investment limit is Rs 4,50,000 in single account and Rs 9,00,000 in the joint account. This account cannot be closed before completing one year from the date of opening the account. Premature closure of account after one year can attract penalties. An investor gets an interest rate of @ 6% p.a. and gets a fixed monthly income from the scheme. However, the interest earned from this account is taxable and no any deduction is available under section 80 C for the investment made.
- 5) **Senior Citizens Savings Scheme Account:** This is a government backed retirement scheme that allows an individual to make a lump sum deposit. This account can be opened by an individual with age above 60 years, retired civilian employees with age above 55 years and below 60 years and by retired defense employees with age above 50 years and below 60 years. This account can be opened in the individual capacity or jointly with spouse only. An individual can make a minimum deposit of Rs. 1,000 in this account and a maximum limit for the investment is Rs. 15,00,000. The scheme gives an interest @ 7.4% p.a. An individual gets the tax benefits under section 80 C of Income Tax Act for the investment made. However, the interest earned from this account is fully taxable at regular tax slabs. The duration of this scheme is 5 years. This account can be extended for a further period of 3 years. This account can be closed before maturity subject to certain penalty.
- 6) **Public Provident Fund Account:** A PPF account can be opened by a single adult resident individual and by the guardian on behalf of minor/ person of unsound mind. However, an individual can open only one account across the country either in bank or in the post office. It is mostly preferred by the salaried individuals as it gives a maximum deduction up to Rs. 1,50,000 u/s 80 C of Income Tax Act for the investment made. The duration of this scheme is 15 years. However, the scheme can be extended for a further block of 5 years. Premature closure of account is allowed after 5 years from the date of opening the account. The premature closure of account is allowed in case of special circumstances like medical treatment of life threatening diseases, education of children etc. An individual needs to deposit a minimum amount of Rs 500 p.a. to keep the account active. An individual can deposit the money in lump sum or in installment. The post office pays interest @ 7.1 % p.a. on the investment. The interest earned on the PPF account is tax free. The rate of interest is fixed by the ministry of finance of central government. An investor can take loan against the PPF account balance as per the rules and regulations of the post office.
- 7) **Sukanya Samriddhi Account:** This is a government scheme dedicated for the financial well-being of the girl child's. An individual can open this account. The parents or guardians needs to open and operate the account in the name of a girl child with age below 10 years. The guardian can operate the account until the girl child attains 18 years of age. They can deposit for a maximum period of 15 years from the date of opening the account. An individual can open only one account across the country either in bank or in the post office. An individual can deposit a minimum amount of Rs 250 p.a. and a maximum limit of deposit is Rs 1.5 lakh per financial year. An individual gets the interest @ 7.6% p.a. The interest is calculated every year and compounded annually. This account matures after 21 years from the date of opening the account

or at the time of marriage of the girl child after attaining the age of 18 years whichever is earlier. This investment alternative gives double benefit as an individual gets the tax benefits under section 80 C of Income Tax Act for the investment made and the interest earned is tax free.

- 8) **National Savings Certificates (VIII Issue):** It is a fixed income investment scheme backed by Government of India. These certificates can be purchased by a single adult individual, in the name of 3 adult individuals, a minor above 10 years age and by the guardian on behalf of minor/ person of unsound mind. An individual can purchase any number of certificates. These certificates mature after a period of 5 years from the date of opening. An individual can deposit a minimum amount of Rs 1,000 in these certificates. There is no any limit on the maximum investment that can be made in these certificates. These certificates can be pledged or transferred to banks, government companies, housing finance companies etc as security. The interest rate of 6.8% p.a. is compounded annually and paid out only on maturity. The interest earned is exempt from tax. Further, an individual can get a maximum deduction up to Rs. 1,50,000 under section 80 C of Income Tax Act for the investment made.
- 9) **Kisan Vikas Patra:** India Post introduced this small saving certificate scheme in 1988. It is an investment scheme that doubles the investment in a period of 10 years and 4 months. These certificates can be purchased by a single adult individual, in the name of 3 adult individuals, a minor above 10 years age and by the guardian on behalf of minor/ person of unsound mind. An individual can deposit a minimum amount of Rs 1,000 in these certificates. There is no any limit on the maximum investment that can be made in these certificates. An individual can purchase any number of certificates. As per the rates applicable to the fourth quarter of the fiscal year 2020-21, the applicable interest rate is 6.9% p.a. An investment made in KVP does not give any tax benefit to the investor. The interest earned is fully taxable. Further, an individual does not get any deduction under Income Tax Act for the investment made.

V. CONCLUSION

The India Post offers 9 different investment schemes such as Post Office Saving Account, Post Office Recurring Deposit Account, National Savings Time Deposit Account, National Savings Monthly Income Account, Senior Citizens Savings Scheme Account, Public Provident Fund Account, Sukanya Samriddhi Account, National Savings Certificates (VIII Issue) and Kisan Vikas Patra. These investment schemes provide different type of tax benefits. An individual gets the tax benefits under section 80 C of the Income Tax Act 1961 for the investment made in Recurring Deposit, 5 Years Time Deposit, Senior Citizens Savings Scheme, Public Provident Fund, Sukanya Samriddhi Account and National Savings Certificates (VIII Issue). An interest earned on Post Office Saving Account, Public Provident Fund, Sukanya Samriddhi Account and National Savings Certificates (VIII Issue) is exempt from tax. Thus, it can be concluded that, the India Post offers different kind of investment schemes with certain tax benefits and an individual has different options to select the investment scheme as per his requirements.

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EFFECTS OF ONLINE LECTURE ON STUDENTS**Rohini Yevale**

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ABSTRACT

Due to covid crisis students take full time online education. With online lecture, students get advantages & disadvantages.

Due to covid many sector face problems and challenges and use online sources for performance. Education sector is also change due to covid. Students earlier use traditional method, means chalk – board Method for education. Due to covid we used online lecture.

INTRODUCTION

There is covid crisis in our country. This has turned online education in everywhere. There are both advantage & disadvantage to learning online. Online study allows students to sit at home. Due to online education, children are taking exams at home. Most of people have been lost job, due to online work.

RESEARCH METHODOLOGY

In the research paper, researcher used primary and secondary data. For primary data, researcher used questionnaire for taking feedback from students regarding online lectures. For research purpose, questionnaire made and questionnaire distributed online and WhatsApp group. Apart from that researcher is also professor and taking online lectures for students that's why researcher used observation method for collecting data.

Limitation of Study

Analysis effect of online lecture of students, only Mumbai Students are selected. For research 92 students give feedback about research. It means very few students are analyzed for research. On the basis of 92 responses, researcher gave finding about research.

Importance of the Study

This study is very important to throw the light to understand psychology of students regarding online and offline lectures. Through the research our society will get more idea regarding online or offline lectures. On the basis of research, we can take decision which lectures is better for students. Right now, covid crisis is going on students taking online lecture. To understand opinion of students, that research is very important. To see effect of online lecture. This research is very important.

Population

For research purpose Mumbai area is selected and Mumbai's population is taken for Sample Survey. In Mumbai lots of students used technology. To identify feedback of this population, researcher used questionnaire.

Limitation of the Study

In research, researcher used only cities and Mumbai population. Limited sampling is selected. Only few questionnaires were made and distributed to few students. For research purpose, researcher has very less time to collect data and finding conclusion.

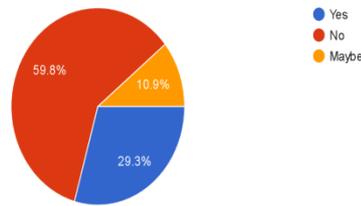
Importance of Study

This research is a very useful to get information regarding online and offline lectures. This research will give details of preference or choice of students regarding online and offline lecture. This research throw a light on students like and dislike of online and offline lectures. It is very useful for taking final decision regarding online and offline lecture. This research helps teachers and schools, colleges, tuitions and educational institution to take online decisions regarding which lecture is comfortable for students.

Objectives

- To identify problems in online education.
- To know which method is good online or offline.
- To understand psychology of students.
- To understand comfortable of study students.
- To understand likes and dislikes of students regarding lectures.
- To understand satisfaction level of studies.
- To take final decision regarding online lectures.
- To understand which lecture is more knowledgeable.

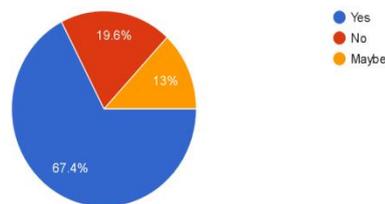
Do you face problems in online education
92 responses



1st chart

In research found 59.8% people are not facing online class problem but 29.3% students face problems in online lecture. Only 10.9% confused about online lecture. It means more students are satisfied online lecture and few students are unsatisfied for online lecture.\

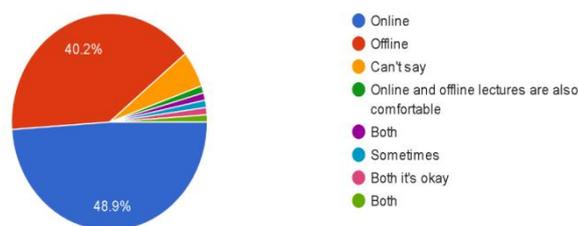
Do you understand online lecture
92 responses



2nd chart

According to second chart 67.4% students understand online lectures, 19.6% students are not able to understand online lectures and 13% student are confused about online lecture.

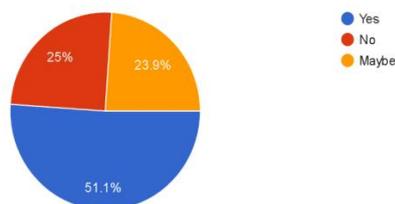
In which lecture do you feel more comfortable?
92 responses



3rd chart

Out of 100% students 48.9% students are comfortable with online lectures and 40.2% are comfortable with offline lectures.

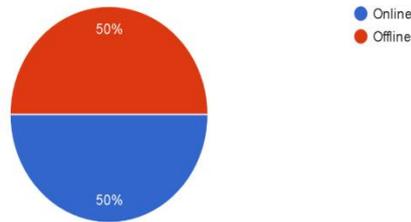
Do you think, we will go up due to online education
92 responses



4th chart

According to chat 51.7% students said on the lectures will improve education as compared to offline lectures whereas 25% students said online lectures will not give benefit to people. 23.9% students are confused.

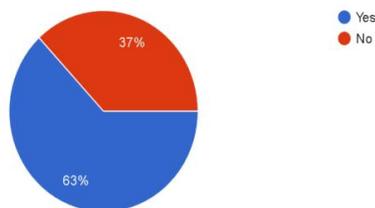
Which lecture do you like
92 responses



5th chart

According to research, researcher found 50% of students are satisfied with online lectures and 50% of students are satisfied with offline lectures.

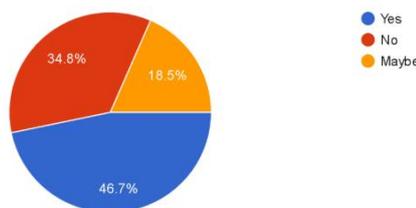
Are you satisfied with online education?
92 responses



6th chart

According to research, students are more satisfied with online lectures. It means 63% students are positively responded about online lecture and 37% students are dissatisfied with the online lectures.

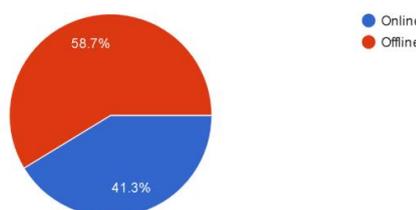
Will you suggest to continue online lecture in future?
92 responses



7th chart

According to research 46.7% students want to continue online lectures but 34.8% students had not given positive feedback about online lectures. 34.8% students said online lecture should not be useful for future.

In which lecture do you get more knowledge
92 responses



8th chart

In the research 58.7% students said online lectures is not giving more knowledge to students but 58.7% students said offline lectures is giving more knowledge to students.

FINDING

From the survey researcher got data from students. According to that data, researcher found students are more comfortable with online lectures but students feel offline lectures is more knowledgeable. Due to online lectures, students seat home and take education through phone and computer. It gives more comfort to students but that cannot give more knowledge to the students and take away attention of students. Online lecture does not give more knowledge but give comfort of students. For taking of knowledge students give more preference of offline lecture.

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INFLUENCER MARKETING AND ITS IMPACT ON PURCHASE DECISIONS**¹Bhupinderjit Kaur and ²Dr. Rinkoo Shantnu**¹Research Scholar, MES's Pillai College of Arts, Commerce & Science, New Panvel²Associate Professor and HOD - Business Economics, MES's Pillai College of Arts, Commerce & Science, New Panvel**ABSTRACT**

The key to market success lies in the ability of a brand to reach its target customers effectively and efficiently. With the growth of social media and subsequent withdrawal of television viewership, it became imperative for the brands to reinvent their marketing strategy by keeping the customers at the receiving end of a two way communication. This trend re-shaped the advertising campaigns led by celebrities and film stars and eventually gave rise to influencer marketing, a form of social media marketing including endorsements and product placements by influencer i.e. people having strong knowledge base and social influence in their respective field.

Keeping Generation Z as the centre point, this study substantiates the research hypothesis that there is a positive impact of influencer marketing on the purchase decisions of retail shoppers. It was seen that Millennial preferred in-depth, genuine and close contact with the information sources rather than relying on interpersonal and general advertisements to base their purchase decisions upon. The research uses snowball random sampling method for collecting data from 100 respondents. The data was analyzed using descriptive statistics. Coupling the secondary data with the literature reviews, it was concluded that there is a strong role of influencers in moulding the purchase decisions of shoppers, particularly in the fashion and beauty industry.

Keywords: Millennial, Fashion and beauty industry, Generation Z, Influencer marketing.

1. INTRODUCTION

Ever since the inception of the modern concept of market, marketers have devised various means to communicate and convince their target audience in favour of their product and services. One such way garnering attention nationally and internationally is influencer marketing. It has been seen that around 2/3rd audiences of tele media will block the advertisements but the same will willingly take advice from a social media influencer. Given the recent trends, brands are investing more on influencer marketing than the traditional channels of marketing and sales promotion. Around 17% of the brands invest more than half of the marketing budget on influencer marketing while 89% of the marketers have benefitted more from influencer marketing than they did the traditional way. Be it by the way of social media influencer, affiliate marketing, unboxings, sponsored content or brand ambassador programs, influencer marketing not only creates brand awareness among audiences but is a cost effectiveness method with global reach.

The key terms used in the research and their meaning are as follows:

1.1 Influencer: An influencer is a person who guides and directs the actions of others. From the social media point of view, influencers possess knowledge about a particular field because of which they have an ability to influence potential buyers of a product or a service by promoting and recommending on social media. With the type of content that they create, social media influencers are users with an established credibility in a certain industry or content. With their consistent efforts, social media influencers built a reputation around a certain niche. They are basically brand ambassadors of product, but on social media.

1.2 Influencer marketing: Influencer marketing is a type of new age marketing that uses influencers to promote a product or a service. This form of marketing is done by influencers or opinion leaders having trustworthy information with their social media follower's base using one or more social media platforms.

1.3 Social media: Social media is a form of electronic communication that comprises of applications and websites that enable a user to share content and participate in social networking. This content can be in form of pictures, videos, information, ideas, personal messages or other forms of content. Social media has gained popularity in the recent years; however the first social media application was devised in May 1997 by the name of Six Degrees. Spanning over a massive period of 25 years, social media is radically revolutionized the way people interact, communicate and share.

2. OBJECTIVE OF THE STUDY:

The objectives of the study are two fold.

2.1 To determine the characteristics of retail shoppers using social media as a guiding tool for purchase decisions.

2.2 To evaluate the effectiveness of influencer marketing on purchase decisions made by buyers and shoppers.

3. RESEARCH METHODOLOGY:

In order to collect data, a structured online questionnaire was administered to 50 respondents using snow ball sampling method. The responses so collected were recorded, classified and analyzed to arrive at the findings of the research. To arrive at the conclusion, the data so collected was summarized using simple percentage method. Further, the data was analyzed in SPSS using the statistical test of Chi-square.

4. DEVELOPMENT OF HYPOTHESES:

A hypothesis is a testable statement or an assumption which is tested to arrive at the findings in order to predict the outcome of the study. In accordance with the objectives of the study, following hypotheses have been developed:

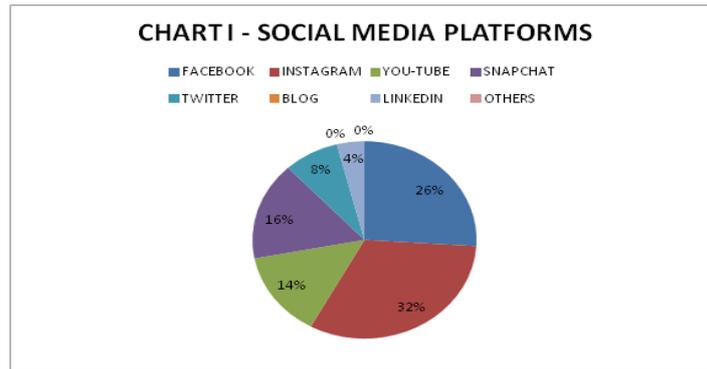
Hypothesis 1:	
H ₀ :	There is no significant relation between the age group and use of social media
H _a :	There is a significant relation between the age group and use of social media

Hypothesis 2:	
H ₀ :	There is no relation between following an influencer and effectiveness of the influencer marketing in moulding the purchase decision of the buyer.
H _a :	There is no relation between following an influencer and effectiveness of the influencer marketing in moulding the purchase decision of the buyer.

5. DATA ANALYSIS & FINDINGS:

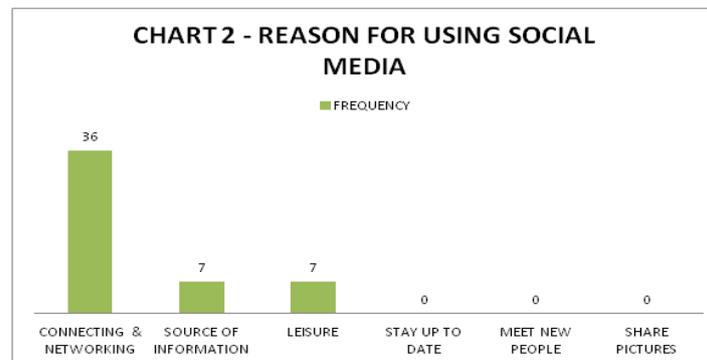
The data so collected is summarized and presented below:

1. GENDER OF RESPONDENTS		
	Frequency	Percentage
Male	20	40
Female	30	60
	50	100
2. AGE OF RESPONDENTS		
	Frequency	Percentage
Below 20 years	0	-
20 years – 30 years	37	74
30 years - 4 years	6	12
Above 40 years	7	14
	50	100
3. USAGE OF SOCIAL MEDIA		
	Frequency	Percentage
Yes	50	100
No	0	0
	50	100
4. SOCIAL MEDIA PLATFORMS		
	Frequency	Percentage
Facebook	13	26
Instagram	16	32
Twitter	4	8
Youtube	7	14
Snapchat	8	16
Blog	0	-
LinkedIn	2	4
Others	0	-
	50	100



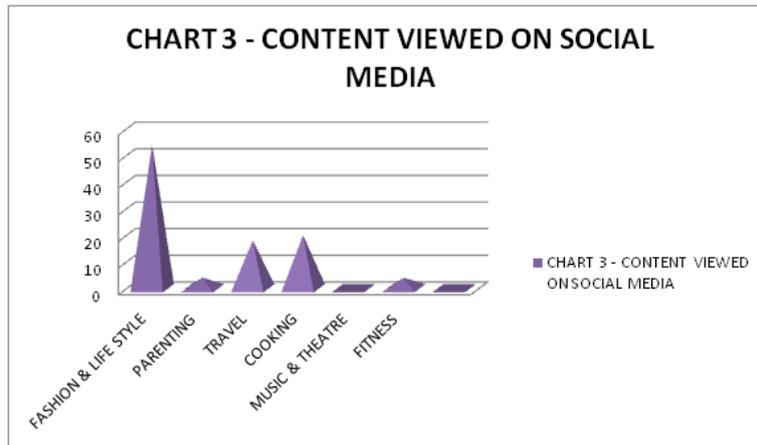
5. TIME SPENT ON SOCIAL MEDIA		
	Frequency	Percentage
Less than 1 hour	10	20
1 hour – 4 hours	37	74
4 hours – 8 hours	3	6
More than 8 hours	0	0
	50	100

6. REASONS FOR USING SOCIAL MEDIA		
	Frequency	Percentage
Connecting and Networking	36	72
Source of information	7	14
Leisure	7	14
Stay up to date	0	0
Meet new people	0	0
Share pictures/videos	0	0
Others	0	0
	50	100



7. FOLLOWING AN INFLUENCER		
	Frequency	Percentage
Yes	38	76
No	12	24
	50	100

8. CONTENT CATEGORY OF SOCIAL MEDIA		
	Frequency	Percentage
Fashion and Lifestyle	27	54
Parenting	2	4
Travel	9	18
Cooking	10	20
Music and Theatre	0	0
Fitness	2	4
Total	50	100



5.1 Testing of hypotheses:

Hypothesis 1:	
H ₀ :	There is no significant relation between the age group and use of social media
H _a :	There is a significant relation between the age group and use of social media

Analysis table 1:	
Chi-Square Value	10.6749
Df	2
P-Value	0.01

Conclusion:

As per the rules, a p-value less than 0.05 are considered to be statistically significant as it indicates strong evidence against the null hypothesis. Therefore for the above, we reject the null hypothesis and accept the alternative hypothesis.

There is a significant relation between the age group of the buyers and their use of social media. Buyers belonging to the age group of 20 years to 30 years were seen to be more inclined towards the use of social media. The same has been proved by the tabulated data listed above.

Hypothesis 2:	
H ₀ :	There is no relation between following an influencer and effect of the influencer in moulding the purchase decision of the buyer.
H _a :	There is a relation between following an influencer and effect of the influencer in moulding the purchase decision of the buyer.

Analysis table 2:	
Chi-Square Value	10.1063
Df	1
P-Value	0.001

Conclusion:

Since the p-value in the analysis table above is less than 0.05, we reject the null hypothesis and accept the alternative hypothesis. There is a relation between following an influencer and effect of the influencer in moulding the purchase decision of the buyer. The buyers who followed one or more influencers on social media were more likely to be influenced by the content shared by the media influencer on various social media platforms. The buyers bought the product which were positively reviewed and promoted by the influencers of their choice.

6. CONCLUSION

As proved earlier by the testing, buyers who followed social media influencers from one category or another were more likely to convert into buyer from the category of prospective buyers. In addition to this, we can arrive at the below mentioned findings and conclusion:

1. Majority of social media users spent on an average 1 hour to 4 hours on social media. Female buyers are more inclined to be following and using social media influencers as a guiding light while making purchase

decisions even though the difference between the male and female social media users is not very significant.

2. Use of social media is pervasive across all the respondents. However, the use of social media for making purchase decisions was prominent in the age group of 20 years to 30 years (74%). Users elder in age exhibited less interest in using social media for shopping as they were more reliant on the traditional way of purchasing.
3. Instagram (32%) and Facebook (26%) are the most popular social media platforms followed by Youtube(14%) and Snapchat (16%). LinkedIn and blogs were used least for the purpose of influencer marketing.
4. Majority of the buyers used social media for the purpose of connecting (72%), information gathering and knowledge accumulation (34%). Networking and sharing of pictures and other data only stood secondary. Category wise, fashion and lifestyle content was the most sought after category on social media for the purpose of content, seconded by content on cooking. Travel, parenting and other content was used only by a limited number of viewers.

It won't be wrong to say that influencers on social media have changed the way purchase decisions are made now-a-days. When buyers can get authentic and in-depth content and a network that enables a two way communication with the influencer, the inclination on part of the brand and the buyers will be more towards this new way of marketing. Influencer marketing, a new dawn in the marketing and sales promotion segment is here to stay.

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MARKET POTENTIAL FOR CRUISE TOURISM**Dr. Harsha Assotikar**

Assistant Professor, Agnel Institute of Food Crafts and Culinary Sciences,

ABSTRACT

Over a period of time, the cruise industry has grown majorly in the American market. But at the same time, the cruise market has also become saturated and is gradually dominating in Europe. The cruise industry is also picking up its market in Asian countries like China, Singapore, Japan, and India. By far, cruise tourism can be said to be the fastest-growing branch of tourism. Tourists are attracted to and have become increasingly familiar with cruise holidays, which makes them more inclined to try one for themselves. More and more people are discovering and acknowledging the advantages of cruise holidays over land-based holidays. This study report has considered most of the elements of the market potential for the cruise tourism sector. The objective of the cruise industry is to develop an understanding of worldwide potential and trends related to the market globally.

Keywords: Cruise Industry, Tourism, Market potential.

INTRODUCTION

Cruise tourism is becoming a more popular "leisure choice" around the world. The cruise industry has long been regarded as an industry for the wealthy, and the only option for the elderly and honeymooners. However, this perception is shifting to a much broader leisure market. Cruise market trends indicate a qualitative as well as quantitative consolidation in the business, with cruising gaining greater prominence within the global "tourist pie" and successfully conquering a large "niche" market. Following are important facts:

- As per the Office of Statistical and Economic Analysis, the US Department of Transportation, the cruise industry tripled in size with time in the 1990s.
- As of January 1, 2004, there were about 339 operational ocean cruise vessels in use by cruise lines across the world, with a total fleet size of 10.9 million gross tonnes.
- According to numbers released by the Lloyds Shipping Economists in March 2002, the cruise industry alone carried an estimated nine million passengers aboard 243 vessels in 2000.
- Cruise Lines International Association (CLIA) reported an unprecedented 16.8 percent annual growth in passenger numbers in the US market alone.
- The WTO reported that cruise ship passengers currently represent 1.4 percent of international arrivals and are producing increasing amounts of revenue in all locations.

The industry is responding to this situation with an ever-wider supply, ranging from trips along the Norwegian to cruises in the Caribbean. An increasing number of new cruise destinations are emerging. Initially, the growth and development of cruises was focused on the Caribbean, Alaska, and Mexico, but has now come to encompass all four corners of the world. Asia has also responded proactively to the global development of cruise tourism. The reaction of Asia to the international cruise tourism action has been important and very meaningful. The Asia-Pacific region, which includes the South Pacific, Southeast Asia, the Far East, and the Trans-Pacific, experienced a growth of 134% during the 1992–2001 period, reaching a figure of 2.1 million nights and a global market share of 3.5%. The finely tuned action in Asia in the construction of cruise ports and terminals reveals the positive market trends and potential for cruise tourism within the region. Singapore became one of the fastest-growing cruise industries in the world by positioning its new cruise centre and international airport as a real connecting hub for the region. In 1998, it opened its cruise terminal, with a total investment of 13.8 million dollars, to accommodate cruise ships of up to 300 metres in total length. The Middle East/Arabian Gulf/Indian Ocean represents the strongly emerging regions, marking a growth of 88% in 2000, though it only represents 0.38% of the world's night stays, growing from around 0.10% in 1992. Dubai is the leader in this region, having opened the new cruise terminal in March 2001 for 2.8 million dollars. Its major international airport and its close links with Cunard are playing a major role in its development. Another important destination is Oman, with ports in Muscat, Salalah, and Khasab in the Musandam, which has had a cash injection of 26 million dollars. Asia's strength lies in its many destinations, and it is estimated that in the near future, they will have the critical mass of world-class ports necessary to be able to offer their great cultural diversity. Other significant investments in this region include the ports of Port Klang-Kuala Lumpur, Penang-

Malaysia, and Langkawi-Malaysia. Star Cruises, based in Singapore, is the market leader in Asia, with an order book of \$1.28 billion and more than 34,000 berths in 2004.

Globally, the cruise industry is a horizontally concentrated market with four large players holding more than 81% of the world's supply of berths, more than 17 brands, and 114 ships. Cruise tourists represent a rich and demanding category, with high expectations regarding comforts aboard the liner, a variety of activities onboard, a variety of destinations at every port, state-of-the-art conveniences during transit, and a "seamless" journey. Small cruises of 2–5 day cruise concepts have grown 7.5 times in the period between 1980 and 2003, showing the highest growth trend internationally. Cruise liners have equally high requirements of the ports at which they call, with principal expectations being the proximity of access to major markets, the quality and availability of port infrastructure and services, the competitive cost of port services, the capacity of the port to accommodate and process high volumes of passengers efficiently, and the quality of the destination in terms of shore-based attractions available. International ports have dedicated cruise terminals designed to satisfy both the cruise liners and the cruise tourists. As per the research conducted by leading cruise industry associations, cruise passengers are high spenders, with an international average working out to 94 dollars per cruise tourist per port. Sustained product development in line with global demand trends, strategic positioning, and marketing backed by consolidated investment in infrastructure and a strong human resource network is sine-qua-non to success in the cruise sector. It is a "supply-driven" market with the capacity to drive the market because cruise liners are always in search of new markets, new itineraries, and new destinations. If adequate facilities, services, and infrastructure are provided, that will, in turn, attract more and more cruise operators to the shores. Aviation advancements on a worldwide scale are exerting a positive influence on cruise tourism, with air gateways affecting time, accessibility, and connectivity to regional tourism sites, offering variety and brand.

Due to the emergence of more new cruise areas, the populace has the chance to travel around the whole world onboard a cruise ship. There is a risk involved as well. However, cruise tourism has a negative impact not only on the environment but also on society. When big ships arrive at small ports, overcrowding will occur and will have an impact not only on nature but also on the tradition, culture, and social behaviour of the residents. Cruising also has the probability of reaching even the most marginal destinations and, in doing so, wiping the last "untouched" places off the map. According to some, it will mean many "paradise lost" and, according to yet others, an instrument of development for even peripheral areas. A troublesome observable reality is that many cruise lines are in service under the flag of convenience. Passengers are presented and offered the best services and premier quality at the cost of the crew members. Many cruise companies have their headquarters based in Bermuda, Saint Vincent, Mauritius, or Malta, where legislation is less rigorous. This probably equates to low employee compensation and minimal social protection, as well as low taxes for the corporation, which leads to better profits.

LITERATURE REVIEW

(Swarbrooke, 2002) Understanding the experience and behaviour of cruise passengers as they undertake activities in urban destinations is foundational to understanding the ensuing impacts that occur and how key elements of the cruise experience can serve the visitors' needs and meet their expectations. Experience and behaviour issues are also linked to economic and spatial considerations of the tourism industry through product delivery and the economic benefits realised from visitors. Similarly, visitor experience and behaviour will influence governance and planning issues that guide infrastructure and management aspects of the Caribbean destinations. Designing places, whether they are for public or private use, involves considering the dealings of places and people. In tourism, designing tourist attractions or destinations is ultimately about the interaction of places with tourists. It is a matter of harmonising the needs of the developers with the demands of the users. Designing tourist attractions is not just about designing buildings, cruise ports, and physical spaces; what is also vital is the way the tangible elements of the attraction are designed that will shape the intangible visitor experience.

Gunn (1994) Suggests that travelers go to any destination because of its special qualities of place, as every destination possesses a varied set of geographical factors, traditions, relationships to markets, and cost characteristics. Many works of literature have emphasised the necessity of place-making, or creating a feeling of place, in establishing the attraction's identity.

(Gibson, 2008) A cruise corporation is separated into numerous departments that comprise the deck, engine, medical, entertainment, and hotel departments.

(Lois et al., 2004) The structure of a cruise ship is divided into two main categories: hotel operations and ship operations-related functions. Hotel functions consist of passenger cabins, restaurants, lounges, bars, and shops.

The ship's functions are related to carrying the "hotel" safely from port to port. The ship produces electricity, has air-conditioned, cold and hot water, and has sewage treatment and waste handling for the hotel part.

(Dickinson and Vladimir, 2008) Cruising is a multi-center holiday where one can take the hotel from centre to centre and is one of the most augmented tourism products in the world as it offers a nearly all-inclusive vacation. The fact that the cruise ship is also a hotel is further underlined by the fact that there is a hotel manager and hotel staff on-board cruise liners.

OBJECTIVE:

1. To understand the worldwide potential market for the cruise line industry.
2. To review the trends in cruise tourism globally.

Trends and Developments in the Cruise Market

There are several notable trends in the cruise business, which is currently in "full-steam-ahead" mode.

Evolution of Cruise Ships: This is seen as a much bigger, more luxurious, and more crowded cruise route. A consequence of this is the globalisation of routes. To stay ahead of the competition and hence attract more passengers, significant investments are made in incredible onboard amenities and capacity.

Technological Advancements: There is not much of an obstacle in this process, but the capacity of seaports to take these mega-ships can indeed be a problem.

Target Group-Oriented Ships: People used to stay in double cabins. There is a current tendency towards spending the night in single cabins, and not surprisingly so, because an important socio-cultural trend is that of individualization.

The Number of Single-Person Households: Western societies are increasing, and this is something that some cruise companies are responding to with special single concepts and deals. For instance, Norwegian Cruise Lines offers more than 100 single cabins on its ship, the Norwegian Epic. In addition, there is a lounge exclusively for singles. Cruise Company Fred Olsen Cruises also offers single cabins, in all classes, for prices around the "per person fare." Moreover, it is possible to pair up with another passenger to share a double cabin. Cruise Tourism Singles are not the only group for whom personalised cruise experiences are offered. Practically every demographic category is served, from families with children to singles to seniors. For example, MSC Cruises offers child-friendly cruises with children's menus, child-care facilities, teenage disco evenings, and entertainment programmes for children. Costa Cruises offers cruise holidays, especially for single parents with children. A few companies are still so child-friendly that children can board alone, free of charge. This contrasts sharply with adults-only cruises, where no children are allowed.

The Ship as a Destination: A cruise ship takes passengers to a destination, but some cruise ships are destinations in themselves. These mega-ships from companies like Disney, Royal Caribbean, Carnival Cruises, Norwegian Cruise Lines, and Aida Cruises are targeting a younger audience and boast plenty of entertainment, such as spectacular theatre shows complete with fireworks. On-board, will also find some activities like tropical swimming paradises, mega theatres, and ice-skating rinks, for instance.

Creating Experiences: Another important socio-cultural development of the past few years is that experiences are becoming increasingly important in choosing one's holiday. Tourists expect more than a high-quality product, a reasonable price, and good service. The passengers want to experience and are constantly looking for new events and stimuli. Cruise companies are doing their utmost to offer authentic experiences to capture the passengers' hearts.

Strong Degree of Thematization: The cruise industry is also characterized by a strong degree of thematicization. There is a lot of interest in theme cruises in the areas of food, wine, music, culture, and art. Additionally, consumer awareness of sustainability, authenticity, health and wellness is growing. More often, cruise lines offer their passengers active short trips and excursions onshore, for example, mountain biking, snorkeling, bicycling, and sports activities on board. Some cruise ships also offer impressive spa facilities, often sponsored by top-brand spa partners. Consumers' growing health awareness can be explained to some degree by the ageing population; people today live longer, healthier, and more vital lives.

Culinary Delights with a Focus on Health: There is also a vast choice of catering options available onboard. The number of alternative or unique restaurants serving international cuisine prepared with local products is growing. In this regard, a nutritious, well-balanced, and diverse menu is critical.

Self-Packaging: More cruise passengers extend their cruise holiday with a beach holiday, a city trip, or a tour of a certain destination area.

Extra Costs: Onboard cruise lines traditionally have a policy of compulsory tipping. But nowadays, cruise tourism takes into account extra expenditure because not all cruise holidays comprise an all-in package, a tendency which is only increasing. This makes cruise holidays more affordable for a wider audience. Since the capacity of cruise ships has increased, some companies can afford to lower their fares. Another development is the emergence of low-budget cruise companies, such as Easy Cruise.

Market Growth and Market Trends

The following market trends, as reported by the WTO (World Trade Organization), significantly underline the potential and direction of growth of the cruise tourism market.

The market is still primarily driven by a rapidly ageing world population as cruising is still largely undertaken by people at or near retirement age. However, key trends reveal signs of a broadening demography of younger people looking for shorter, high-quality, cruising experiences.

The cruise market is still in its infancy and, as an essentially developing phase, offers major prospects for growth as it reaches maturity. The industry's longer-term outlook is robust. A key feature of importance is that the size of the cruise vessels is becoming larger, in part to augment the capacity and in part to replace older vessels with high operating costs to cash in on the economies of scale.

Europe is one of the fastest-growing markets, offering a larger population base than North America but yet to reach the levels achieved in North America. Asia is the fastest-growing region in terms of the cruise industry. The origin of these passengers shows the dominance of ASEAN passengers in cruising vis-a-vis those of other markets. Between 1997 and 1999, the world's major cruise lines reportedly committed to investing US \$7 billion in 27 new ships, which was more than the industry's annual worldwide revenues then, thus showing a positive growth trend ever since.

CONCLUSION

The cruise industry has been influenced by countless macroeconomic factors. Consumer confidence is strongly influenced by the financial crisis and especially by the consequences of this crisis in the United States and Europe. Political instability in North Africa is also a factor that plays a role. Moreover, there are destructive natural disasters and pirates in the Gulf of Aden and surrounding areas that keep posing threats. All these factors have a considerable influence on the lack of demand for cruise holidays and tourism at the local and international levels. More than half of the worldwide cruise market is in the hands of North America. The second-largest cruise industry is that of Europe. It is expected that Europe will have the highest potential for growth in the years to come, and this potential is far from being fully exploited. This low market penetration rate offers plenty of opportunities for the future of cruise travel, and the cruise industry is expected to continue to grow over the years to come. The European market is well represented by, for instance, Great Britain, Germany, Italy, and France. With 5.5 million passengers transported in 2010, departing from a European port, Europe's market share is about 30%. As a result, cruise tourism constitutes an important engine for the European economy and the development of tourism in Europe. With 4% more jobs having been created, the total number of jobs in the cruise industry in 2010 added up to 300,000. The fact that the cruise market is displaying strong growth under difficult circumstances actually inspires confidence for the future. Expectations for the next couple of years are promising too.

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STUDY AND EXPLORATION ON 5G TECHNOLOGY RUMOURS

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ABSTRACT

The objective of this paper is comprehensive study related to 5G technology and some rumours associated with it. 5G is upcoming generation of mobile technology which not only increases speed while watching movies on Netflix but also going to be implemented in health care, virtual reality and cloud gaming. While accepting the new technology, there will be fear in our mind about its impact. So for the same we will make use of Internet. After watching the videos and reviewing research papers related to 5G technology, you may get confused and may be assumed that rumours related to 5G technology are all true. So in this research paper, I tried to find scientific reasons related to rumours such as: (1) 5G technology has impact on Birds ecosystem (2) 5G technology is responsible for spreading corona virus (3) 5G technology causes Cancer or tumours (4) 5G technology responsible for global warming (5) 5G technology has impact on Airline services. (6) The radiation from the 5G tower is poisoning the air. (7) People can feel the current at home because of 5G. (8) 5G radiation creates dryness in mouth and nose. Every 10 years one new mobile technology came into picture which increase the level of mobile technology in terms of features and services offered. So in this paper will also discuss about Mobile network and all mobile technology developed till date and differences between them. We will also discuss facts and fictions about 5G testing and rumours associated with 5G testing.

Keywords: 5G, RAN, radio frequency, radio waves, mobile network, Non-Ionising radiation, Ionizing radiation

INTRODUCTION

First technology was 1G. which was introduced in 1980 because of which we will be able to talk on phone (Voice calling). this was the revolution in mobile technology. After this 2G technology was introduced. Which also provides the facility of calling with digital signals instead of Analog signal. It was launched in 1990.

The speciality of this technology is the messages which send via this technology will remain between two persons only(Privacy). This feature was not there in 1 G. This technology is first step where more importance is given on privacy.

3G launched in 1998.This technology made our India as Digital India. Now different videos we are able to see on YouTube and can do video calling that is because of 3G technology only.

After 3G, 4G is launched in the year 2008 which increases speed of Internet. this technology also enabled features like HD video, Online gaming.

After 4G, 5G is introduced at South Korea in April 2019. This technology performs all the task performed by 2G,3G and 4G technology. Plus, its provide machine to machine communication feature also.

Speed of 5G is 100 times greater than 4G. 5G technology may also be known as Internet of Things in future as it used from car to bike means everywhere.

Technologies / Features	1G	2G/2.5G	3G	4G	5G
Evolution	1970	1980	1990	2000	2010
Deployment	1984	1999	2002	2010	2015
Data Rate	2 kbps	14.4-64 kbps	2 Mbps	200 Mbps to 1 Gbps for low mobility	10 Gbps to 100 Gbps
Famous Standards	AMPS	2G: GSM,CJDMA 2.5G: GPRS, EDGE, 1xRTT	WCDMA, CDMA-2000	LTA, WiMAX	Not yet defined
Technology behind	Analog cellular technology	Digital cellular technology	Broad bandwidth CDMA, IP technology	Undefined IP and seamless combination of broadband. LAN/WAN/PAN/WLAN	Undefined IP and seamless combination of broadband. LAN/WAN/PAN/WLAN
Service	Voice	2G: Digital Voice, SMS 2.5G: Voice+Data	Integrated high quality audio, video and data	Dynamic information access, wearable devices	Dynamic information access, wearable devices with AI capabilities
Multiplexing Type of Switching	FDMA Circuit	TDMA,CDMA 2G: Circuit 2.5G: Circuit and packet	CDMA Packet	CDMA Packet	CDMA Packet
Handoff	Horizontal	Horizontal	Horizontal	Horizontal and Vertical	Horizontal and Vertical
Core Network	PSTN	PSTN	Packet network	Internet	Internet

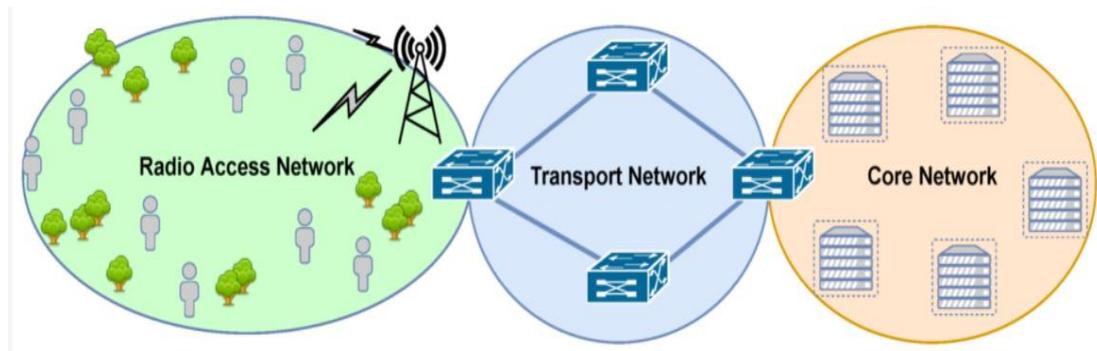
From this it is clear that in this century Internet is a medium to give as well as take information. All kind of information is just one click away from us.

But while using the Internet we also keep in mind that whatever information which is available on Internet is not True. Now there is one rumour which are viral on Internet related 5G technology.

So in this research paper I have tried to solve all your doubts related to this topic.

But to understand this topic first you should know the what is difference between 4G & 5G and how both works.

These both are mobile network which provides you internet facility.



Mobile network is made up of 3 things. If something went wrong in any of these 3 component whole system will get damaged. First part is Radio Access Network(RAN) Because of this part only your phone gets connected to internet. You will be able to see the antennas which are installed at building roof or terrace.

Second is core network which is important part of mobile network. Because of this network only your message or call is delivered to intended recipient only. Last is Transport Network. This network act as mediator between Radio SS network and Core network. Now we will talk about main fear which in is the mind of so many people i.e. wave which are produced by mobile and electronic devices which is called in scientific language as Radio waves.

These waves are called as radio waves because they are used in small electronic device i.e. Radio. These waves are used in communication from 120 years. Radio waves are like light which are electromagnetic waves. Which are made up from photon particle. Radio waves frequency is less than light waves.

Theses waves can travel easily at any corner and also penetrate through buildings which light waves cannot do. This is a reason why when we are seating in room still we have network to our cell phone. This basic information is sufficient to understand that 5G technology is dangerous or not.

If we are planning to implement 5G technology, then this will definitely increase the Bandwidth. Bandwidth means the space required to signal to travel specific distance.

In 3G technology, we can cover large area using less number of towers because of less bandwidth and less number of Internet user.

After that 4G came into picture, which reduces bandwidth area means to reach internet facility to long distance we required more towers.

Because of 5G, one tower can provide network facility for very short distance only. The impact of this is the number of towers will increase tremendously.

RESEARCH METHOD

For this study, Descriptive research method is used. Because of this method this study would be cheap and quick. It could also suggest unanticipated hypothesis. Nonetheless, it would be very hard to rule out 5G alternative explanations and especially infer causations. To do this research, I have read many reference books related to 5G technology and also gone through so many research article/papers related to this topic.

FINDINGS AND ANALYSIS

❖ 5G technology has impact on Birds ecosystem

There is one more impact of 5G is that it will also effect on Birds ecosystem. According to Punjab University study they have done experiment in that they kept eggs of sparrow near 5G tower. Within 5-30 minutes these eggs increased in size and get contaminated. This is happened because of 5G radiation.

In Netherland also same type of research has done where they found that because of radiation from 5G tower, bird's strength of making nest and sensing their children has lost. Birds also forgot their path to reach to their nest lack of navigation sense.

The birds migrating from one country to another, Because of 5G they will not be able to do this thing. This may lead to extinction of some bird species. Honeybees are also affected by 5G, they lost their home path & some also dies.

No,5G-the fifth generation of our mobile network does not kill birds. "Radio wave emissions above 10 MHz from radio transmission antennas (including cell telephone towers) are not known to harm birds. Bird deaths to disorienting lights used on communication towers, not the electromagnetic radiation they emit. Considering all, It's strange and worrisome sequence of events that leads us to 5G being blamed for bird die-off.

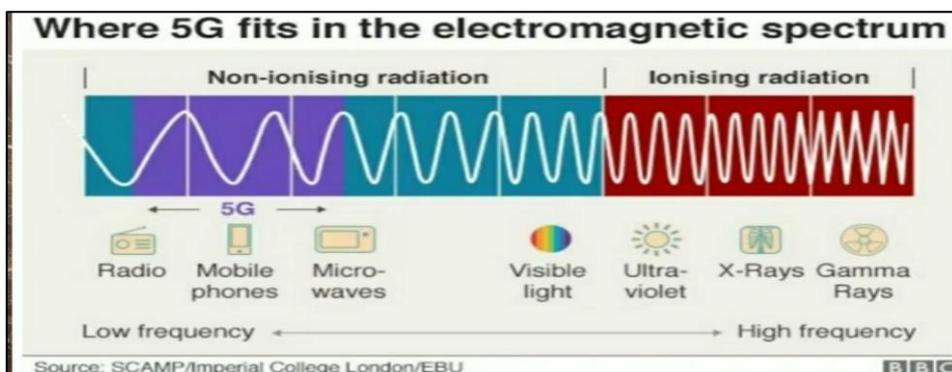
❖ **5G technology is responsible for spreading corona virus**

After incorrect allegations about the impact of 5G on birds, a new conspiracy theory emerged that the 5G network is spreading coronavirus. Viruses cannot be transmitted by means of radio waves transmitted by telecommunication devices. This has been confirmed by the fact that coronavirus is present even in the countries that do not have a 5G network. The World health organization reminds that the coronavirus is transmitted by means of respiratory drops, when person speaks, coughs or sneezes. A person can contact the virus if they come into contact with an infected surface and then touch their eyes, nose, or mouth.

The countries like Australia, New Zealand, Hong Kong, South Korea are using 5G network only. In these country we found very less cases of Corona virus affected people. So first fact is that these countries should be more affected by corona virus as they are using 5G only but which is not the case.

❖ **5G technology causes Cancer or tumours**

Wifi is working at 2.4Ghz-5GHz frequency. Frequency of 3G & 4G is 700 MHz-800MHz. 5G uses millimetre waves which has 300 GHz frequency. So if we think sociologically that this frequency will definitely harm us as there is high radiation. To make this rumour more true, in 2011 IARC (International Agency for Research on Cancer) reported that these high frequencies electromagnetic fields as possible carcinogenic to humans based on an increased risk for glioma. A malignant type of brain cancer associated with wireless phone use. So here we will focus on term "carcinogenic" which means we have limited evidence or inadequate evidence as far. So how will trust what is stated in report. Now we will scientifically try to understand whether this rumour is true or false.



First part of diagram tells us about low frequency radio waves and second part tell us about high frequency radio waves. So first part is Non-Ionising radiation which contains Radio, Mobile phones and microwaves. Second part contains Visible light, Ultra violet light, X-rays, Gamma Rays. Ionising radiation means the kind of radiation which impacts on human body. The radiation which does on impacts on human body are called as Non-ionising radiations.

So if we are talking about 300 GHz 5G radiation frequency which is less that Visible light. These rays come under non-ionising radiation which does on impacts on human body, then how it will cause cancer. But after visible light, there are ultra violet rays, X-rays, Gamma rays are harmful to us. So if we want to protect ourselves, then protect ourselves from Ionising radiation because it will impact on our DNA structure which further causes different types of cancer.

❖ **5G technology responsible for global warming**

There is estimation is that till 2025 there will be approximately 2.6billion customers using 5G network. Till 2030 this count will increase to 5.8 billion. So more than 125 billion internet devices will be using 5G service

each year. This is not good for our environment. If this happened, then 5G will be responsible for spreading 14 percentage global warming gases.

Because of 5G, quantity of e-waste will get increased. It takes 50-60000 years to decomposed e-waste.

❖ **5G technology has impact on Airline services.**

Because of 5G, Airplane's Radio Altimeter engine and breaking system will have serious impact. Altimeter tell the height of plan from earth surface after take-off. Also helps in deciding direction. Airplane's altimeter works at 4.2 to 4.4 GHz frequency and in America 5G technology C band is used which has 3.7 to 3.98 GHz frequency. As these frequency range are nearer to each other will create problem in landing of plane and during bad weather conditions system will not give proper signal.

In 5G network 6 GHz frequency is used and the problem which is going to arise is that the same frequency radio waves are used in Satellites also. So in coming days, if utilization of 5G technology is increases, these radio waves will start distracting each other. Which will impact on satellite communication or 5G network

5G Testing in India

→ In 2018, Airtel has done in-house testing in very small area

→ In October 2020, Jio has done in-house testing in very small area

Before 9 months, Indian government has not decided spectrum of 5G network. The decision was not taken on which 5G band is implemented in India? India decided to do testing in association with Chinese telecom vendors Huawei and ZTE on big level. From the recent news, there are chances that 5G will be implemented till July 2022. Indian telecom companies like Jio and Vi are performing trials. Jio has made its own 5G core network. Vi company with the guidance of Nokia is also doing trials at Gandhinagar with full swing. 5G telecom services are not going to be implemented in all cities of India. Initially, It is planned to be implemented in Grugram, Bangalore, Kolkata, Mumbai, Chandigarh, Delhi, Jamnagar, Ahmadabad, Chennai, Hyderabad, Lucknow, Pune and Gandhinagar.

CONCLUSION

The frequency band that 5G uses is being used by armies of different countries to handle the crowd. Also the length of antenna would be drastically small as compared to 4G which ultimately increase the number of Antennas around us. More ever, the mentioned frequency band has the capability to play with our minds. Any kind of ideas & thoughts can be transmitted through this frequency which can lead to change in our behaviour unknowingly. These are some of the consequences of 5G that cannot be neglected. We can just hope that proper regulations would be there to prevent such kind of misuse of 5G. Taken together, it's a strange and worrisome sequence of events that leads us to 5G being blamed for so many issues, but it's also typical of how misinformation spreads on the internet: an urgent headline, backed by a series of half-truths and misinterpretations, validated by popular culture and amplified and laundered repeatedly through social media posts.

FUTURE SCOPES/ PERSPECTIVES

5G is not implemented in India till date which was proposed to be in the month of January 2022. The reason is companies like Jio, VI asking more time for 5G trials so it is extended till March 2022. TRAI (Telecom Regulatory Authority of India) will finalize 5G pricing till March 2022 and give it to DOT (Department of Telecommunications). DOT will set auction of 5G spectrum. In India, still trails are going on so may be in the future after practical implementation 5G. When bulk people start using this technology problem may arise. So this research is never have any ending

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Nonetheless, it would be very hard to rule out 5G alternative explanations and especially infer causations.

“Radio wave emissions above 10 MHz from radio transmission antennas (including cell telephone towers) are not known to harm birds.

A malignant type of brain cancer associated with wireless phone use.

6billion customers using 5G network.

Also helps in deciding direction.

Taken together, it's a strange and worrisome sequence of events that leads us to 5G being blamed for a series of half-truths and misinterpretations, validated by popular culture and amplified and laundered repeatedly through social media posts.

A STUDY OF BUSINESS STRATEGIES FOR SMALL SCALE BUSINESS**Ghone Punam Ramchandra**

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ABSTRACT

Small & medium sized businesses are considered the principal factor for the growth of the industrial structure of many countries. Today with the growth & advancement of technologies, the impact of cutting-edge technologies such as information technology on the business environment cannot be overlooked. The use of innovative business strategies helps create value. The purpose of this paper is to investigate business strategies of small & middle-sized businesses. The results of the study indicated that strategies have impacts on the companies.

Keywords: Business Strategy, business objectives, environment overtime, functional Strategy etc.

INTRODUCTION

The word Strategy comes from the Greek word ‘Strategos’ which means a general. In Defence , Strategy means the art & science of directing military forces in a war . Today, the term Strategy is used in businesses to describe how an organization is going to achieve its objectives & Goals Most businesses have several options for getting its objectives & Goals. Strategy is concerned with deciding which option is to be adopted accomplish the objectives & Goals of the business.

Strategy is a comprehensive long-term plan It gives to answer three main questions.

- What is the current position of the Business?
- What should be the future position of the Business?
- What should be done to maintain the future position?

Definition

“Strategy is an plan of action designed to achieve an overall aim “.

- Oxford Dictionary

“The Pattern of an organization’s responses to its environment overtime”.

In other words, “Strategy is a broad long-time plan designed to achieve the total objectives of the business.”

Definition of Business Strategy

“Business strategy can be understood as the course of set of decisions, which assist the entrepreneurs in achieving business objectives.”

Business strategy is the backbone of the business as it is the roadmap which leads to the desired goals. Any fault in this roadmap can result in the business getting lost in the crowd of competitors.

Objectives of the Study: -

- To learn the concepts of the business strategy.
- To know the levels of Business strategy.
- To study the importance of Business strategy.
- To understand the limitations of Business strategy.

Sources of Data collection: -

For this study collected data with the help of secondary sources these are as under: -

- 1) Website
- 2) Journals
- 3) Periodicals etc.

Limitations of the Study: -

- This study is based on only Secondary data.
- Limitation of time and lack of primary data is also another limitation of the study.

Levels of Business Strategy: -

The business objectives are achieved by the effective different business strategies while every employee, partner and stakeholder of the company focus on complete a business objective their activities are defined by various business strategies according to their level in the business.

Business strategies can be classified into three levels are as under:



1. Level 1: - The Corporate Level: -

The corporate level is the highest level of the business strategy. It is the business future plan. It sets the guidelines of business works. It also sets the mission, vision and corporate objectives for each and every one.

2. Level 2: - Business Unit Level: -

The business unit level is a unit specific strategy which differs for different units of the business. A unit can be different products or methods which have totally different Jobs, the competitors using competitive strategies to achieve the business objective defined in the corporate level strategy.

3. Level 3: - The Functional Level: -

The functional level, strategies are set by different departments of the units. It involves decision making at the operational level with respect to specific functional areas for example Production Marketing, Personnel, Finance etc.

Decision at functional level is also called as “tactical” decision. These decisions are necessary guided by overall strategic considerations eg. marketing policy decision, should provide guidelines for marketing management.

In short corporate and business level strategies are concerned with “doing the right thing but functional strategies express “doing things right”

Key Components of Business Strategy: -

While an objective and Goals is defined clearly in the business future plan, the strategy answers all the question of the business activities. e.g. What’s, Whys, Where’s, When’s, or how’s, of the fulfilling that objective. So, it is the key components of a business strategy.

The main focus of a business strategy is to fulfill the business objectives and goals. It gives the direction to the firm with clear instructions of what needs to be done, how it needs to be done or who all are responsible for it.

It also states the ‘musts’ of ‘must nots of the business which clear most of the doubts and give a correct direction to the management, units as well as the various business departments.

Importance of Business Strategies for Small Scale Business

- It helps long term planning
- It helps in preparation for different markets and products.
- It protects against a sudden change in environment
- Business strategy optimizes of increases profits.
- It helps in improving marketing communications.

-
- Its leads the organization with a single objective
 - It helps with optimum utilization of resources.
 - It helps in collecting a lot of input

It helps with sustainability and competitive advantage of business In short there are many reasons which justify the importance of business strategy. In today's looking forward of designing a strong and innovative strategy is the only way that certain business can overtake their competition.

Problems of Small Scale Business:-

1. Limited capital
2. Poor utilization capacity
3. Shortage raw materials.
4. Lack of technology up-gradation
5. Deficiency of working capital.
6. Poor industrial relations.
7. Lack of awareness.
8. Government involvement
9. Inability to meet environmental standards
10. Short of marketing support.

SUGGESTIONS OF THE STUDY

To remove these difficulties and put the small-scale industrial sector on a sound position of development the following measures may be suggested.

- 1) Equitable allocation of raw materials, imported equipment etc.
- 2) Improvement in the methods and techniques of production.
- 3) Provision for industrial education and training
- 4) Marketing assistance
- 5) Provision for adequate finance
- 6) Increase the production capacity.
- 7) Selection of skilled and experience holder workers.

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INDIAN MSMES AND DIGITAL LENDING

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ABSTRACT

Fintechs and other new business models have started lending to Micro, Small and Medium Enterprises (MSME) over the past few years, based on their innovative approaches and diverse sources of information. With digitization becoming a key component to achieving financial inclusion, it is critical to determine whether digital lending is efficient in removing the credit purchasing barriers faced by MSMEs. The condition of digital lending for MSMEs in India is examined in this study. It creates a typology of digital lenders in India, analysis the different types of loans that they offer to MSMEs and creates a generic framework for an end-to-end digital lending process based on extensive secondary research.

Keywords: Fintech, digitization, financial inclusion, loans, generic framework.

INTRODUCTION

There are multiple levels of complexity in the digital lending ecosystem, which is constantly evolving. In each country with digital lending, the market structures, regulatory environments and consumer needs are conditioned by different market structures and regulatory environments (Accion, 2018). This research study uses the term ‘digital lending’ to describe loans that are applied for, disbursed and managed via digital channels. In this method, lenders use digitized data and focusing on digital customer engagement. In this study, fintech firms that ‘digital credit’ and operate in the digital lending space are analyzed. In the context of digital credit, all online platforms other than commercial banks that are active in providing credit to consumers are included (Bertsch & Rosenvinge, 2019).

OBJECTIVES

- To create a typology of digital lenders in India
- To analyze the different types of loans that the fintech companies’ offer to MSMEs.
- To create a generic framework for an end-to-end digital lending process.

RESEARCH METHODOLOGY:

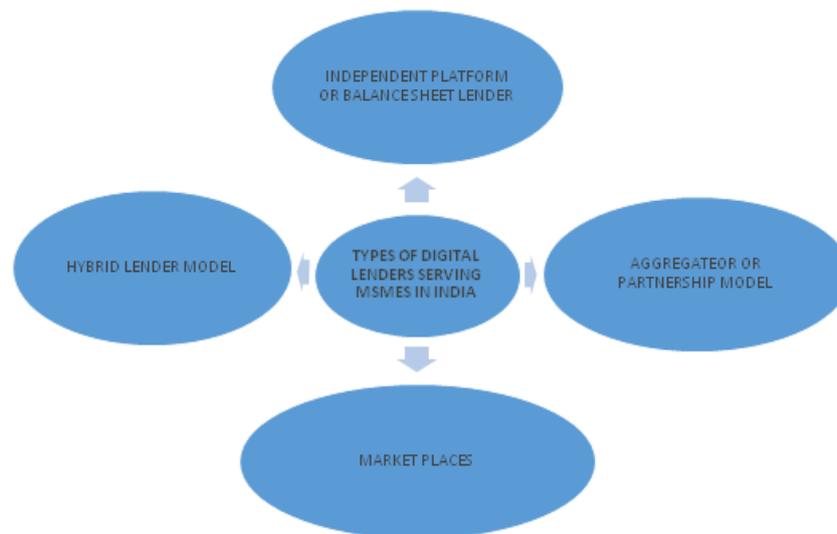
The study is based on Secondary studies from various media like the Newspapers, Journals, BBC News. The data and the information provided is assumed to be true and genuine.

REVIEW OF LITERATURE:

Name of the Literature	Description on the type of digital lenders identified
The G20 Global Partnership for Financial Inclusion (2017)	Market Place Lenders, Tech, e-commerce and Payment giants, Supply Chain Platforms, Mobile-data based lending models, Digital Bank Models.
The IFC (2018)	Marketplace Lenders, Balance Sheet Lenders, Marketplace Hybrid Lenders.
The Americas Alternative Finance Benchmarking Report (2016)	Marketplace models, balance sheet lending and crowd funding.
BCG, (2018)	Independent platforms, Aggregator/Partnership models, peer-to-peer platforms, value + service models.
The Cambridge Centre for Alternative Finance and Microsave (2018)	P2P Consumer and P2P Business, Balance Sheet Consumer and Balance Sheet Business Models, Asset Backed Financing, Real Estate Model.

(1) INDIA’S MSMEs AND THEIR PROVIDERS

Over 300 of these fintech start-ups are digital lenders, according to research (Goyal, 2020). Literature analysis discovered that financing sources were the most important parameter when analyzing digital lenders. In Figure 1, an outlined four types of Indian models, along with some prominent examples illustrated how these types exist.



A. Independent Platforms or Balance Sheet Lenders:

In digital lending, financial institutions raise funds from several sources (private equity firms, institutional investors and family offices etc.) to make loans on their own balance sheets.

B. Aggregator/Partnership Model:

In this model, incumbents such as banks and NBFCs collaborate with fintech companies to help them source customers, assess creditworthiness and collect payments among other things. **Indifi** is a technology platform that facilitates tailor-made small business loans without collateral to meet the needs of small businesses. It collaborates with online marketplaces, software companies, and data providers to leverage business data. Its lending partners include Northern Arc, LendingKart, Fullerton India, IDFC First Bank and Manappuram Finance Limited (Indifi, n.d.)

Vayana Network is a fintech that enables MSMEs to obtain credit against trade documents. It collaborates with the buyer, seller and financing institution to build a network. It facilitates the electronic flow of trade documents through this network and provides enterprises with simple, digital access.

C. Hybrid Lender Model:

These lenders have joint ventures with incumbents and also lend on their own balance sheets. They are essentially a hybrid of the first two models, namely the balance sheet lender model and the aggregator/partnership model.

CapitalFloat is a fintech lender that uses funding from banks and other lenders for finance loans (IFC & Intelcap, 2018). It also has a model where it collaborates with banks and NBFCs to lend to SMEs (CapitalFloat, n.d.)

Kinara Capital is an NBFC that has received funding from private equity and impact investors such as Gaja Capital, Gawa Capital, Micheal & Susan Dell Foundation, Sorenson Impact Foundation and others. Northern Arc Capital and Vivriti Capital are also co-lending partners of the firm (Kinara Capital, n.d.).

D. Market Places:

Fintechs act as intermediaries in this model, connecting borrowers with institutional creditors. Peer-to-Peer Lending Models are a sub-segment of market places. According to the RBI Master Directions, P2P platforms in India are “an intermediary providing the services of loan facilitation via online medium or otherwise, to the participants”. (RBI, 2019), and must be registered as an NBFC-P2P. They frequently connect borrowers with retail credit suppliers. **Faircent** is a peer-to-peer lending platform that has been registered with the RBI as an NBFC-P2P. It creates a web-based marketplace using technology to connect prospective borrowers with willing lenders, which include individuals and institutions (Faircent, n.d.) **OMLP2P** is another peer-to-peer lending platform that provides unsecured loans to help consumers manage their various financial needs (OMLP2P, n.d.).

2. AVAILABILITY OF DIGITAL LOANS TO INDIAN MSMEs

This section is based on considerable desk research into the many types of digital loans available to small businesses. The infographic below depicts the various loans as well as some of their characteristics. The loan characteristics were gathered from several corporate websites and combined into a range.

LOAN TYPE	CREDIT RANGE IN INR	INTEREST RATE	COLLATERAL	REPAYMENT TENURE (MONTHS)
BUSINESS LOAN	25,000 - 5 CRORES	12% - 28%	SECURED & UNSECURED	1 - 49
MSME LOANS	2 LAKHS - 5 CRORES	15% - 27%	SECURED & UNSECURED	1 - 84
WORKING CAPITAL	50,000 - 2 CRORES	15% - 28%	SECURED AND UNSECURED	1 - 60
TERM LOANS	50,000 - 50 LAKHS	18% ONWARDS	UNSECURED	1 - 48
SUPPLY CHAIN FINANCE	10 LAKHS - 5 CRORES	NOT AVAILABLE	SECURED	1 - 4
MERCHANT CASH ADVANCE	1 LAKH TO 1 CRORE	AROUND 18%	UNSECURED	6 - 36
FRANCHISE FINANCE	UPTO 50 LAKHS	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
PURCHASE FINANCE	50 LAKHS - 75 LAKHS	NOT AVAILABLE	NOT AVAILABLE	18 - 36

3. DIGITAL LENDERS IN INDIA OFFER A VARIETY OF LENDING OPTIONS

This section provides a brief description of the loan types described in figure 2 as well as examples of lenders who supply these loans. Some lenders provide more than one form of digital loan, and that there are more lenders than those included in the examples for each product. This isn't a comprehensive list.

(i) MSME and Company Loans: MSME and Business Loans are loans provided to businesses to cover a variety of business needs. The loan is usually tailored to the needs of the company and can be obtained with or without collateral (BajajFinserve, n.d.), (CreditMantri,n.d.).

SMECorner's unsecured business loan solution, which is customized to the needs of the firm, enables access to business funding (SMECorner, n.d.).

SMC Finance offers a no-collateral business loan with flexible repayment choices for business expansion, equipment upgrades and other purposes (SMCFinance,n.d.)

(ii) Working Capital Loans: Businesses use working capital loans to fuel their day to day operations. There are two types of loans: Secured and Unsecured (LendingKart, n.d.).

Tribes3 provides e-commerce business owners with customized working capital loans to help them expand their online presence across several platforms or stock up on goods for busy seasons (Tribe3, n.d.).

(iii) Term Loans: MSMEs can get term loans to fund capacity expansion, capital expenditures and the purchase of fixed assets (MyLoanCare, n.d.)

Mintifi, an online lending platform, offers its customers personalized term loans to fulfill their capital needs for modernizing a unit, starting a new project, or expanding an existing unit, among other things (Mintifi,n.d.)

PinCap Business Loans provides businesses with unsecured loans to help them meet their cash flow and working capital needs. Small businesses that give goods or services to medium or big corporations are eligible for the loan, which is said to be based on the business's long-term viability (PinCap,n.d.).

(iv) Supply Chain Finance: Supply Chain Finance focuses on providing quick working cash to businesses to mitigate the impact of late payments. It enables MSMEs to receive payment on their invoices sooner and in full (IFC & intelcap, 2018). 'Supplier Finance' or 'reverse factoring' are other terms for it (investopedia, n.d.).

M1xchange is a trade receivables exchange that enables MSMEs to obtain finance by discounting invoices. The MSME provider, the Corporate Buyer, and the Financier are the three participants in the discounted platform. A supplier or a buyer can upload an invoice, which is then verified by the other and posted on the site for financiers to bid on. The provider receives the discounted amount (M1xchange,n.d.).

Drip Capital gives businesses up to 80% of the invoice in cash advances against their trade receivables. The firm then collects 100% of the payment from the buyers and refunds the balance to the customer, less fees (DripCapital,n.d.).

KredX provides capex discounting and assists major businesses in obtaining finance to meet their capital expenditure needs. The service allows businesses to utilize their rental receipts as collateral and get funds at a reduced rate up front. (KredX,n.d.).

(v) **Merchant Cash Advances** : A merchant cash advance is a loan based on the company’s receivables. Small EMI payments based on daily credit/debit card settlements are available to the company on a daily basis (Anand, 2019).

Loans against electronic payments (LAEP) and loans against point of sale (POS) machine payments are available through **Clix Capital**. This product allows a company to get a loan based on the money it receives from a card swipe machine (ClixCapital,n.d.).

Indifi provides a merchant advance loan secured by POS equipment, with the loan amount based on the monthly card-based transaction volume of the business (Indifi,n.d.).

(vi) **Franchise Finance**: Franchise Finance is a digital loan designed to help both new and current franchisees meet their business finance needs, such as working capital, inventory and royalty payments (BajajFinserve,n.d.).

Owners of franchise businesses can apply for a franchise business loan from **Flexiloans** to support their capital needs for expansion, new product introduction, and other needs. This product is available to business owners in a range of industries, including electronics, appliances, autos and clothing (FlexiLoans,n.d.).

(vii) **Purchase Finance**: is a type of credit that allows firms to use credit at the time of purchase. It assists in maximizing both payment and credit card functionalities (CXO, 2019).

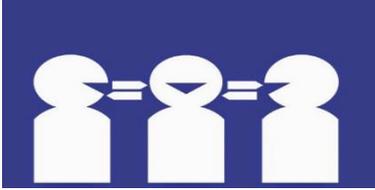
For sectors such as manufacturing and infrastructure, **OfBusiness** offers this lending product is an alternative to distributor financing. It corresponds to these industries’ cash flow cycles (OfBusiness,n.d.).

NeoGrowth provides finance to service providers, traders and manufacturers who buy raw materials and trading items from large corporations or their channel partners. (Neogrowth, n.d.).

(viii) **Equipment Financing**: Businesses can rent or lease machinery, trucks and other equipment (FinanceCorp,n.d.).

To assist businesses in purchasing assets or equipment, **Loans4SME** offers an operation lease, a long-term commercial credit alternative. This product enables a corporation to lease a piece of equipment or an asset by paying a monthly lease rental to the lease company, which retains ownership of the asset. At the end of the lease term, the company has the opportunity to buy the asset (Loans4SME,n.d.)

A generic digital lending process is depicted in a diagram.

	 CUSTOMER	 DIGITAL LENDER	 THIRD PARTIES
Customer Acquisition	- Apply for a loan directly through a technological platform. E-KYC for identity verification.	Obtain clients through the following methods: - Direct channels (SMS,Digital Marketing). -Indirect channels (MNOs, e-commerce platforms)	Third parties employed include: - Direct selling Agents & Digital Process enablers.
Appraisal & Analytics	-Provide data directly -Provide consent to access data	-Assesses creditworthiness using proprietary algorithms. -Uses both traditional data	Third parties employed include: - Credit Scoring and Verification. – Valuation agencies. – Fraud control units.
Loan Sanction	-Pay processing fee -E-sign sanction letter	Arrive at a loan amount to be sanctioned, interest rate and repayment tenure.	Third parties employed include: - Digital process enablers.
Disbursement	-Receive loan in bank account through RTGs,	Disburse loan to borrower’s account through digital channel	N.A.

	NEFT etc.	s(NEFT, RTGS etc)	
Collection	-Repay loan through Automatic Clearing House, Post-dated cheques etc.	- Assess and predict collections process - Monitor repayments.	Third parties employed include: - Monitoring agency Collection agency.

CONCLUSION

India’s fintech lending environment is expanding. Investors are still interested in digital lending for SMEs, and there are new innovations in the market. However, there is justifiable doubt about the digital lending market’s development prospects, especially given the present epidemic, which is putting these new and rising models to the test.

In order to provide a detailed perspective of the market, this research brief tried to explore the current environment of digital lending serving the MSME sector. However, this preliminary examination has raised new concerns about the digital lending business.

A review of the numerous digital loans available on the market indicated that digital lenders are attempting to produce products with features that cater to the specific demands of distinct MSME groups. This need to have a deep understanding of certain sectors, along with the widespread use of alternative data to assess creditworthiness, may help to reduce information asymmetry. There is room to investigate if this will result in lower risk premiums in the long run. Providers employ proprietary algorithms and alternative data from numerous sources to assess borrowers’ creditworthiness, according to a step-by-step review of the digital lending process. They have been able to grant credit as a result of this.

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MALICIOUS CODE DETECTION AND SECURITY APPLICATIONS USING DATA MINING

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ABSTRACT

This exploration examines the employment of knowledge digging strategies for malware (noxious projects) discovery and proposed a system as an option in contrast to the customary mark identification techniques. The customary methodologies utilizing marks to differentiate malignant projects comes up short for the new and obscure malwares case, where marks aren't accessible. We present an information mining structure to differentiate pernicious projects. Our information mining system incorporates two isolated also particular classes of tests. Within the below average of trials, we proposed involving consecutive affiliation investigation for highlight determination and programmed signature extraction. With our trials, we had the choice to accomplish as high as 98.4% recognition rate and as low as 1.9% bogus positive rate on novel malwares.

Keywords: malware, methodologies, exploration, vector.

1. INTRODUCTION

PC virus recognition has advanced into programme identification since Cohen initially formalized the term PC virus in 1983 [Coh85]. Vindictive projects may be characterized into virus, worms, Trojans, spywares, adware and an assortment of various classes and subclasses that occasionally cross-over and obscure the bounds among these classes [Szo05]. Both conventional mark based identification and summed up approaches will be utilized to acknowledge these malignant projects.

We present a special mining tool to handle the problem of malware identification. Data processing has been a replacement focus of malware location research. Segment 2.5 presents an article survey of the info digging procedures utilized for infection and worm location. Our methodology joins the simplicity of a robotized syntactic investigation with the force of semantic level examination requiring human ability to reflect basic program conduct which will characterize among vindictive and harmless projects. We performed beginning tests and fostered a knowledge mining system that fills in as a stage for further research.

1.1 Definitions

This part acquaints different PC security terms with the pursuer. Since our work manages PC infection and worms, a more point by point record of these classifications is introduced than some other region in security.

1.1.1 Computer Security

PC security is the work to make a protected registering stage, planned so specialists (clients or projects) can perform activities that have been permitted.

1.1.2 Malware

Any program that is intentionally made to hurt the PC framework tasks or information is named a noxious program. Malignant projects incorporate infections, worms, Trojans, secondary passages, adware, spyware, bots, rootkits, and so on All malware are some of the time inexactly named as (infections, worms, Trojans explicitly) Commercial enemy of malware items are as yet called antivirus.

1.1.3 Phishing

Phishing can be characterized as a crime utilizing social designing procedures.

The most widely recognized instance of phishing is an email requesting to enter account/charge card data for internet business sites (eBay, amazon and so on) and web based banking.

1.1.4 Virus

PC virus is a self-reproducing code (counting conceivably advanced duplicates of itself) that contaminates other executable projects. Infections for the most part need human intercession for replication and execution.

1.1.5 Worm

PC worm is a self-repeating remain solitary program that spreads on PC organizations.

Worms normally needn't bother with any additional assistance from a client to duplicate and execute.

1.1.6 Trojan

Diversions or essentially Trojans are programs that play out some malevolent movement under the appearance of some typical program. The term is gotten from the old style fantasy of the Trojan horse.

1.1.7 Spyware

Spyware is PC programming that is introduced secretly on a PC to block or on the other hand assume fractional responsibility for the client's collaboration with the PC, without the client's educated assent.

1.1.8 Encryption

The following line of safeguard by the virus authors to overcome signature discovery was code encryption. Scrambled virus utilize an encoded infection body and a decoded unscrambling motor. For each infection, the virus is scrambled with an alternate key to try not to give a consistent mark.

1.1.9 Human Activity

Based Activation Here of initiation, the worm execution depends on some activity that the client performs not straightforwardly connected with the worm, for example, sending off an application program, and so forth.

2. LITERATURE REVIEW

The term PC virus was first utilized in an exceedingly sci-fi novel by David Gerrold in 1972, at the purpose when HARKIE Was One [Ger72], which includes a portrayal of an imaginary PC program called virus and had the choice to self-reproduce. the most scholastic utilization of the term was guaranteed by Fred Cohen in 1983. The originally distributed record of the term are often found a year after the actual fact by Cohen in his paper Experiments with Computer Viruses [Coh84]. In his paper Cohen credits his counsel Educator Len Adleman for begetting the term. However Cohen initially utilized the term, some early records of viruses will be found. As indicated by [Fer92], the most announced episodes of genuine viruses were in 1981 and 1982 on the Apple II PC. Elk Cloner is viewed because the principal archived illustration of an outbreak in mid-1981. The principal PC virus was a boot area virus called Brain in 1986 [JH90].

As this work is connected with malware recognition, this section gives a commentary overview of the world. The examination may be performed at the ASCII text file level or at the twofold level where just the executable program is accessible. As referenced by [BDD99], it's ridiculous to expect the accessibility of ASCII text file for every program. the most decision left are executables with specific legitimate ties. the information from the executables are often assembled either by running them or performing static deciding or by utilizing the 2 procedures. The picking apart strategy is named Static Investigation while the cycle within which the program is absolutely executed to accumulate the information is named Dynamic Analysis. some picking apart strategies are applied to create a halfway portrayal of the parallel code. These incorporate dismantling, decompiling then on When the data is in intelligible organization, different methods may be applied for extra examination. the numerous advantage of static examination over its dynamic partner is that it's liberated from the upward of execution time.

3. METHODOLOGY

This part gives a depiction of, the much required, hypothetical establishment for our work and the overall system that we created to do our trials.

3.1 Research Contribution

[Kan02] portrays the information mining cycle to be comprised of five stages.

- Issue explanation and plan of speculation
- Information assortment
- Information pre-processing
- Model assessment
- Model understanding

When the issue was obviously expressed as the malware recognition issue, one of the primary commitments of this work comes from the information assortment step. The distinction among our methodology and other static examination approaches referenced in the connected exploration area are as per the following:

The structure we created, utilized applied information mining as a total cycle from issue proclamation to the model understanding advance. [Bon93] talked. Exposed the information to a malware examination process where great many malwares as well as spotless records were examined for bad and copy components also pressed, encoded, polymorphic and transformative structures. Additionally, all highlights were arrangements of guidelines removed by the dismantling as opposed to utilizing fixed length of bytes, for example, n-gram.

The Benefits are:

1. The guidance successions incorporate program control stream data, not present in n-grams.
2. The guidance groupings catch data from the program at a semantic level rather than syntactic level.
3. These guidance successions can be followed back to their unique area in the program for further investigation of their related tasks.
4. The variable length guidance arrangements intrinsically bring about a more modest list of capabilities when contrasted with n-grams.
5. Countless successions that showed up in just clean program or malwares can be killed to accelerate the displaying system.
6. The classifier got can accomplish over 98% location rate for new and inconspicuous malwares.

In the provisions of factual derivation, the initial step is alluded to as acceptance (advancing from specific instances of information values to an overall model), while the subsequent advance is derivation (advancing from an overall model to specific instances of result values) [Kan02]. These two stages are carried out in a learning machine. All the more officially, given an assortment of tests (xi, f(x) i), the inductive learning process returns a capacity h(x) that approximates f(x). The approximating capacity can be characterized as far as its inner boundaries, and a more exact structure can be communicated as h(X, w), where X is the information vector and w is the capacities boundaries. Such a capacity is known as the misfortune work L(y, h(X,w)), where y is the genuine result of the framework, X is the arrangement of data sources, w is the

boundaries of the guess work, h(X, w) is the result created by the learning machine involving X as data sources furthermore was inner boundaries. The normal worth of the misfortune work is known as the gamble useful R (w)

$$R(w) = \int \int L(y, h(X, w)) p(X, y) dX dy \tag{3.1}$$

where L(y, h(X, w)) is that the misfortune capacity and p(X, y) is that the obscure likelihood dissemination of the data, X. Inductive learning are often reclassified because the method attached assessing the capacity h(X,wopt) that limits R (w), over the arrangement of capacities upheld by the educational machine and utilizing just the information information and not knowing the likelihood dissemination p(X, y).

We utilized the vector space model to form our list of capabilities. In data recovery, a vector space model characterizes records as vectors (or focuses) in an exceedingly complex metric space where the tomahawks (aspects) are addressed by terms. dependant on the kind of vector parts (facilitates), there are three essential renditions of this portrayal: Boolean, term recurrence (TF) also term recurrence - opposite report recurrence (TFIDF), [ML07]. For our situation, the projects also guidance successions planned to reports and terms, individually. Utilizing these program vectors, we made a term-report grid where projects were organized in lines, while segments address the expected elements (guidance successions). For highlight choice we utilized Boolean portrayal of the network, where a 1 addressed presence, while 0 addressed nonattendance, of a guidance grouping in a very given program. Accept there are n programs p1, p2 ... pn, and m guidance arrangements s1, s2, ..., sm. Let ni j be the days a briefing si was viewed as in an exceedingly program pj. within the Boolean portrayal a program pj is addressed as an m part vector, pj = p1j, p2j, ... pmj,

$$p_j = \begin{cases} 0 & \text{if } a_{ij} = 0 \\ 1 & \text{if } a_{ij} > 0 \end{cases} \tag{3.2}$$

Using the Boolean definition of p_{ij} , let N_{ij} be the total number of times a sequence s_i was present in the program collection.

$$N_{ij} = \sum_{j=1}^n p_{ij} \quad (3.3)$$

To be chosen, a succession s_i , should have its N_{ij} more noteworthy than a characterized limit. This limit was set to 10% of the complete number of the projects, as it is a generally expected practice in information digging for characterizing unary factors.

$$N_{ij} > \frac{n}{10} \quad (3.4)$$

3.1 Models

We utilized a range of order models in our examinations. The reinforcement of the inductive learning executed within these models has been examined in the learning hypothesis area.

3.2 Logistic Regression

Relapse could be a factual method that decides all that model which will relate an autonomous variable to different free factors. Strategic relapse is that the reasonably relapse that attempts to measure the likelihood that the reliant variable will have a given worth, instead of assessing the price of the variable.

3.3 Neural Network

A neural organization is a company of straightforward handling components (neurons) that may show complex not entirely set in stone by the associations between the handling components and component boundaries. It tends to be utilized to demonstrate complex nonlinear connection among sources of information and results by gaining from experiential information communicated through the associations between the handling components.

3.4 Decision Tree

A choice tree recursively parcels the indicator space to display the connection between indicator factors and downright reaction variable. Utilizing a bunch of knowledge yield tests a tree is developed. the educational framework takes on a hierarchical methodology that appears for a solution in a very section of the pursuit space.

3.5 Random Forest

Irregular woods gives level of progress over Bagging by limiting connection between's classifiers within the troupe. Utilizing an irregular choice of elements to part each hub yields mistake rates that contrast well with Adaboost, yet are more strong as for noise.[Bre01] aside from characterization, arbitrary woods likewise gives the many factors utilized within the model. the importance is decided because the mean decline in precision or mean reduction in Gini file if the variable is taken out from the model.

4. SUPERVISED LEARNING EXPERIMENTS

This part depicts the tests that are recognized by the use of directed learning calculations on an assortment of datasets that involved the recurrence of event of a component as a necessary choice standard. Our significant commitment comes from the interesting arrangement of highlights that we recognized by investigating the malware tests and also the use of data mining as a complete interaction from issue explanation and data assortment to display translation and reaching determinations. In these examinations, we worked with various malware types and analysed different grouping what's more component determination strategies. We likewise contrasted our component type and other the foremost widely known include type, utilized in information digging for malware location research. The essential unit of our investigation could be a PC document. As far as records, a PC program comprises of at minimum an executable record enhanced by an assortment of knowledge documents. As malware is for the foremost part recognized as projects, they fundamentally comprise an executable document. Worms, Trojans, spyware, and then on remain solitary projects while infections are infused into other executable projects making them malignant.

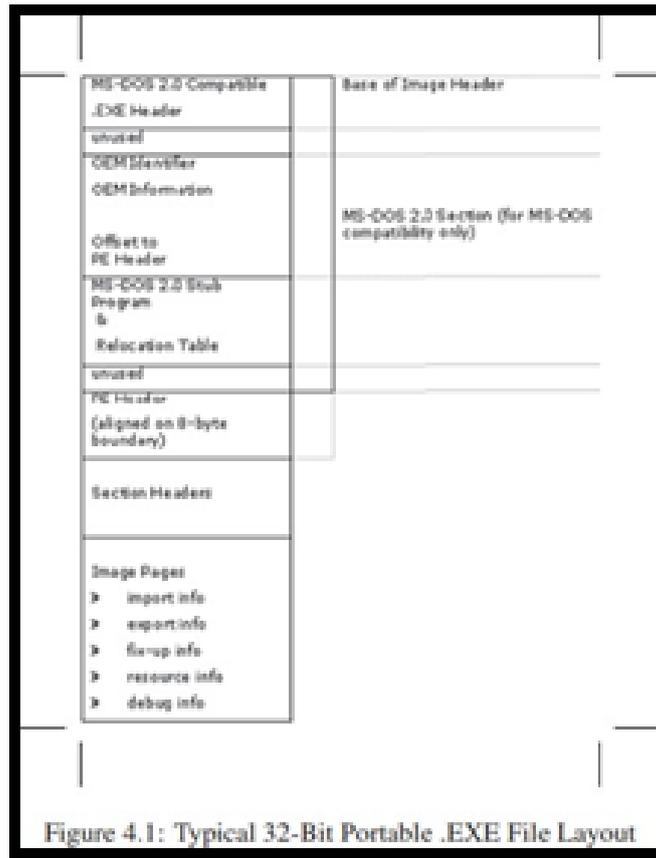


Figure 4.1: Typical 32-Bit Portable .EXE File Layout

In a more worked-on structure, the PE record is considered as comprising of two primary bits; header and body. The header contains data about the document including insights for instance number of areas, beginning location, and then forth while the body contains the important substance of the record. We performed tries various things with three forms of malware; infection, Trojan, and worm. The primary area portrays trying various things with a subset containing each of the three sorts. The subsequent areas are committed to Trojans and worms because it were.

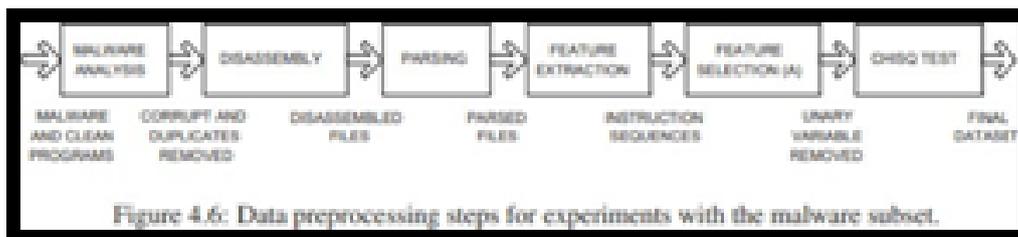


Figure 4.6: Data preprocessing steps for experiments with the malware subset.

5. CONCLUSIONS

This paper gave a prologue to the malware research utilizing information mining methods. We applied a four level ordered progression to coordinate the exploration and included information mining within the top level of recognition strategies. Our work intently feels like data recovery and order methods, where we supplanted text records with PC programs and applied comparable methods. We proposed involving affiliation investigation for highlight choice also programmed signature extraction and had the choice to induce as low as 1.9% bogus positive rate and as high as 93% generally speaking precision on novel malwares with the calculations that we conceived. Eventually future work is proposed to expand the affiliation investigation strategy for further developed grouping and existence intricacy for the calculations

6. FUTURE WORK

The malware location utilizing affiliation examination research is as yet in its underlying stages. There are numerous thoughts and strategies that are yet to be carried out. We present various thoughts as future research bearings for involving affiliation examination for malware location.

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CONTEMPORARY GOVERNMENT, PUBLIC POLICIES AND RISE OF NEO NATIONALISM IN INDIA

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ABSTRACT

Nationalism was an inevitable product of Indian Freedom Movement against the British Colonial government. It was based on Patriotic Foundation However the concept of "Nationalism" is not only concerned with the pride of historical glorious events but also with the collective efforts done for the eradication of hindrances to this National heir Dom. The feeling for the reshaping of the nation into more capable, smarter stronger and an ideal unit, is closely associated with the Nationalism: The bifarious decisions taken by the present Indian Government regarding the Demonetization, Terrorism, Cleanliness, erection of National monuments, recent removal of Article 370 of the Constitution P.M. Narendra Modi's straight dialogue with the NRIs and Indian citizens in regional or National language has convinced Neo Nationalism to the multicultural heterogeneous Indian society.

In this paper emphasis is given on the examination of the intensity of the spirit of Neo-Nationalism within the various communities, groups of masses, based on age gender religion, income and education and also to examine how the Neo Nationalism itself is used in building the new image of India in the globalized scenario

Online survey was distributed across the country. Respondents were randomly divided into the groups based on the above mentioned Criterion Analysis of the responses demonstrated that extensive feelings are associated with Nationalism and vital public opinion that the existing government has accelerated the process of Neo Nationalism in India

Keywords: Neo Nationalism, Demonetization, Heterogeneous National heir Dom, Public Opinion.

INTRODUCTION

India is a parliamentary Democratic Republic in which the President of India is the head of state and the Prime Minister of India is the head of government. The organs of government include the legislative (law making); the executive (enforcement of law) and judiciary (interpretation of law).

The three tiers of government are: the federal, state and local governments. These tiers of government are known/identified with a federal system of government.

The core duty of any government is to provide the citizens of ex country all the basic public policies such as health, education, food & water. Public policies in India is in a state of Flux.

The nature of the policy process has changed dramatically due to changing government .A case is made to listen to the multiple voice that are emerging in governance processes; it is argued that are emerging in governance processes; It is argued that it is necessary to create a space for dialogue among civil society and citizens. The demand for stronger link between research and policy has grown. Emerging Demographic trends at national level, such as urbanisation-and environmental trends at the global level – such as climate change have redefined the contours of public policies.

In India, Public policies are upgraded continuously as per the need of public and new policies come up day to day to serve the country.

Indian Prime Minister Narendra Modi (assumed office in 2014) and his Bharatiya Janata Party (BJP) have been referred to as new nationalist. Modi is a member of the Rashtriya Swayamsevak Sangh (RSS), a right-wing paramilitary organisation aligned with the BJP, which has also been said to advocate a new nationalist ideology. Modi's nationalist campaigns have been directed by BJP strategist Amit Shah, who currently serves as the Indian Home Minister (assumed office in 2019), and has been touted as a potential successor to Modi as Prime Minister.

The new nationalism has become a highly controversial issue by the consecutive electoral successes of new types of nationalist parties in various parts of the world. It should be acknowledged that the profile and discourse of the leaders of these parties played an important role in this increased interest. Politicians such as Vladimir Putin, Donald Trump, Viktor Orban, Recep Tayyip Erdogan, Rodrigo Duterte, and most recently Jair Bolsonaro display only partly similar profiles; however, develop an almost similar discourse, pointing to the rise of a complex and diversified phenomenon. They increasingly resort to national references in political rhetoric in

an intensifying fashion over time, express distrust in globalization and regional integration with a renewed interest in sovereignty, distance their parties from the classic political ideologies, mobilize their supports on the basis of cultural specificities and ethnicity, display hostility against migration combined with a new commitment to borders or even walls, and magnify the already existing fear induced by rapid economic change and aggressive technological advances.

Neo nationalism successfully multicultural ethnocentric convinced to heterogeneous the and Indian society by the contemporary government. This challenging task had been skilfully handled by the present government from demonetization to the most recent elimination of article 370.

Today it can be observed that vital public opinion is with the existent Indian government which leads to Neo Nationalism In this paper emphasis is given on the examination of the intensity of the spirit of Nationalism within the communities, groups of based on various masses age, religion income, education and gender. Also to examine the role of Neo Nationalism spirit in building the new image Nationalism was an inevitable product of Indian Freedom Movement based on patriotic Foundation. however the concept of nationalism is not only concerned with the pride of historical glorious events but also with the collective efforts done for the eradication and hinderances to this National heirdom. The feeling for the reshaping of the nation into more capable, smarter, stronger and an ideal unit is closely associated with the nationalis. The contemporary Indian government had started the second phase of nationalism ie new nationalism among the citizens of the country. The failure of previous Indian government in the eradication of the issues and problems of national government in the eradication of the issues and problems of national importance, the effective expansion of the present government resulted into the replacement of the 70 years old Congress government. The Indian Prime Minister's visit to the country and abroad. His dialogue with non residential through Indians and Indians Indian languages directly from International platform. Erection of National monuments effective fights against the terrorism with Global support, wide spread publicity of missions like Chandrayaan 2, cleanliness are successfully converted into the mission of the masses. This is named as the National duty. This momentum of Nationalism in Indian society has begin to ignite.

MAIN TITLE:

Rise of Neo Nationalism in India

The causes that led to the rising of Nationalism in India is,

- Political Unification.
- Development in the means of communication and transport.
- Impact of Western Education.
- Rediscovery of Indian's glorious past.
- Socio-Religious Reform Movements:
- Growth of Vernacular Literature.
- Press and Newspaper & etc.

According to the survey, it can be seen that the Neo nationalism which emerged after 2014 has many reasons behind it. In India the New government came up with idea of 'Ache Din' which led to the drastic change in election pattern. Ache Din is the dream shown to the people about ideal country where there will be less poverty and more education, health facility etc. All this summed up to become the major reason for new government to come in power. Most people said that the concept of 'Ache din' bought a hint of nationalism in India.

Not only this but the Effective formulations of the national issues by the present govt. proved helpful in raising the people's belief in the new government. Previously the Nationalism was based on the idea of freedom and now it is based on the idea of achieving the great heights by achieving all the Basic needs and having a full flourished nation. The New government which came in power in 2014 used this idea as their basis and boosted the feeling of nationalism which resulted in Neo nationalism and the political party's success. The new government (Bhartiya Janta party) came up with effective Formulations of the national issues. For Example. The issue of unemployment is not new for India. Many educated individuals stay unemployed due to many reasons. The New government took an initiative known as Start-up India Scheme for generation of employment and wealth creation. Its goal is to develop and innovate products and services in order to increase employment rate in India.

The fact that people got attracted towards effective formulations of the national issues by the present government stems out from the certitude that the previous government neglected the National issues. The Survey report states that the considerable cause of power change in India in 2014 is the negligence of national issues by the previous government. Instead the issues were used as the topic for election campaigns. The sentiment of Neo Nationalism aroused in people has Development of Nation as its ground and when they figured out that new government can bring development, they followed the respective government.

The belief that people had in mind that the present government will empower India brought a wave of positivity and filled people with the hope and the New Nationalism came into existence.

For thousands of years we have lived in an environment that has suppressed the local wisdom and has managed to confuse the local population either in the name of religion or in the name of modernization. And so on. This slowly leads to creating more and more of sub-standard and mediocre mind sets that stops appreciating good leadership. From the previous government (Congress Party) former prime minister of India honourable Manmohan Singh had many crises in his leadership which leads to lack of leadership. The Survey report conveys that the lack of leadership turned the public towards the new government.

According to the survey, it has been observed that there is effective leadership in the existing government which is handled by Prime Minister Narendra Modi. He is considered as a huge success, both at economic and political front. The economy is booming, and Narendra Modi is the most popular Indian leader since Mahatma Gandhi, both inside and outside the country. Some of vibrant qualities of a leader can be taken as an example from the respected Prime Minister of India Shri Narendra Modi. His style of leadership is simple yet organized. He takes care of farmers as well as doctors and businessmen. Shri Narendra Modi has a very humble background and has his roots from a small town of Vadnagar in India. His journey to the most respected position of Prime Minister of India is remarkable. His tough (and sometimes unpopular) economic reforms have put India on track to be the world's fastest-growing major economy in 2018.

There were many decisions, policies, plans and activities, etc. taken by the Indian government

- Decision of demonetization – On November 8, 2016 at 8 pm, Prime Minister Narendra Modi gave a surprise address to the nation, saying all Rs 500 and Rs 1000 notes would no longer be valid currency. Instead, Indians would get fifty days to deposit the demonetised currency into their accounts, with the expectation being that those holding onto untaxed “black money” will be caught. The aim of demonetisation was to end out corruption and black money, to get rid of fake notes and to most important was to stop terrorist financing.
- Namami Gange established independent ministry for the clearing of Ganga. Namami Gange Programme’, is an Integrated Conservation Mission, approved as ‘Flagship Programme’ by the Union Government in June 2014 with budget outlay of Rs.20,000 Crore to accomplish the twin objectives of effective abatement of pollution, conservation and rejuvenation of National River Ganga.

- **Surgical strikes showed the world a new India**

- **Statue of unity**

The Statue of Unity is a colossal statue of Indian statesman and independence activist Vallabhbhai Patel (1875–1951), who was the first Deputy Prime Minister and Home Minister of independent India and an adherent of Mahatma Gandhi during the nonviolent Indian Independence movement. Patel was highly respected for his leadership in uniting 562 princely states of India with a major part of the former British Raj to form the single Union of India. The statue is located in the state of Gujarat, India. It is the world's tallest statue with a height of 182 metres (597 feet).[3] It is located on the Narmada River in the Kevadiya colony, facing the Sardar Sarovar Dam 100 kilometres (62 mi) southeast of the city of Vadodara.

- National Police Memorial
- National War memorial
- Chandrayan 2 expedition
- Citizenship ammendment act
- Triple divorced cancelled.
- Kailas mansarovar yatra

-
- Katarpur corridor
 - Beti bachao beti padhao
 - Start up India
 - Cancellation of article 370
 - Clean India mission

Above all these the core idea of Neo nationalism intuited in Citizens of india by Narendra Modi and his party Bhartiya janta party brought a huge change.

Many people has said that the government of India had made india more empowered, capable and dominant nation iin the period of 2014-2019 which resulted in power gain of BJP in the next Election period (2019-2024).

As per the national sentiment of nationalism and national proud increased among the citizens of India due to the policies, customs and activities, etc adopted by our Prime Minister Shri Narendra Modi on his personal basis, we have observed that honourable Shri Narendra Modi has used the "Hindi" language , from United Nations and various international forums which was more effective.

He had visited many foreign countries that helped in improving relations with foreign countries which was extremely effective.

STUDIES ON THE DIVERSITY ON BUTTERFLY

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ABSTRACT

It is a necessary to account of impact species detection at study site when assessing butterfly description this can be accomplished by condition multiple presence of basses surveys within a single season and analysing data with the statically model that the unlimited deflection profitability and site occupancy by speices.transet conut with are the commonly use to asses butterfly. Advance in monitory program are less result than make – relase – recapture samling which is frequently use for some purpose in research studies transact count are follow because the do not account for individual detection profitability and temporal detection profitability and temporal fragmentation of a butterfly population.

Keyword: butterfly, diversity, nature, life

INTRODUCTION

Butterfly are central pollinators to many agricultural cops additionally . part of nature like birds , animals , lizards. Butterfly are intangible par of nature and just as important in our everyday surrounding as we are in our surrounding.

Butterfly are classified as Lepidoptera then largest alive of the class insact lepidoptrera is made oup of two words lepid and ptrera they are thge both greck term lepido denotes socialy and petrera denotes wings butterfly are exotic insects withe a wide range of species . they findind revalued that their were 156 species from 25 families of butterflies gond during the day season and 74 species from 10 families of butterflies fonud during the wet season they are three butterflies that are the protected as well as nine endemie species .

They are good indicators of climat condotion seasonal and ecological changes and theyand also be use tp devolpe consercation stratagist .

Type of butterflies

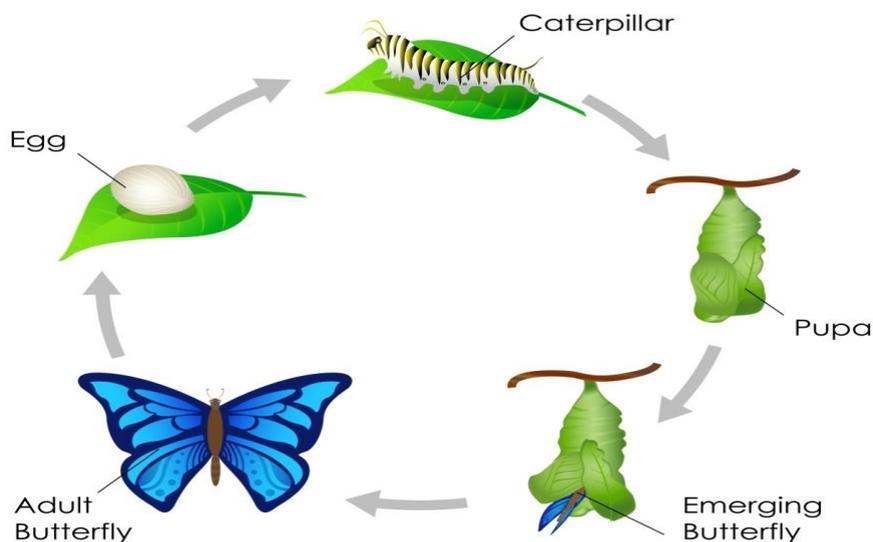
Our surroundingthr nature soew many typ of butterflies and the butterflies name bollow as:

Painted lady, monarach butterflies, plain tiger, red admiral cobbage white, brush footed butterflies, cmmen pierrot tailed jay etc.

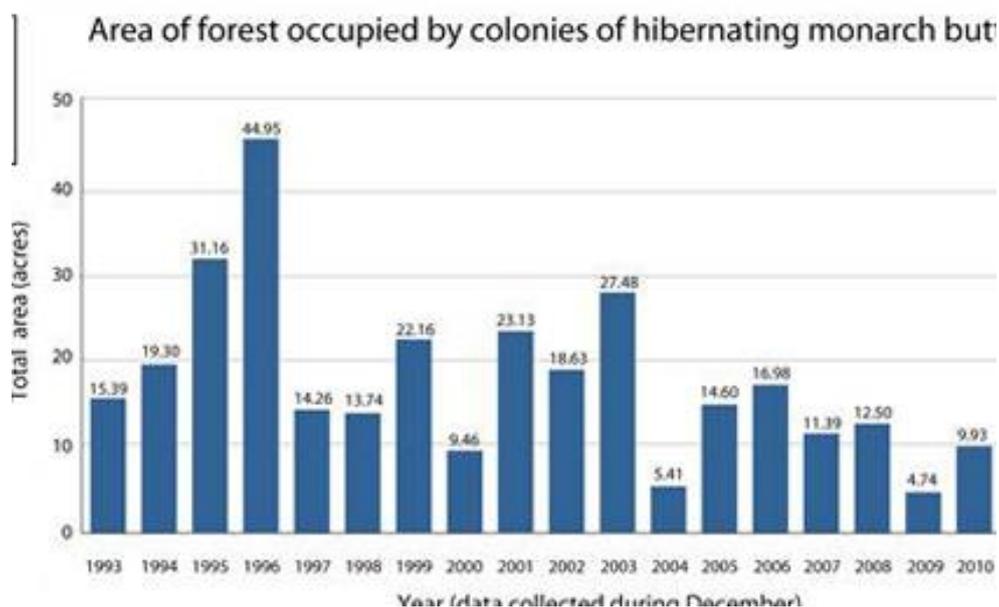
Re – search methodology of butterflies on diversity

The butterfly methodology dived legacy system migration six main place each place consist of number of individual normally indenpedned migration activities within each phase some activities can provided in purled with other butterflies maintaining program have as well as reliable methods of data of collection and the stastical analysis so that their result are scientifically sound and robust to effectively use butterflies syndicators .

Life stages of butterflies



- **Egg** - Adult butterfly mothers look for specific plants to lay their tiny eggs on. They use a special glue to stick their eggs to plants that their babies will be able to eat when they are ready to hatch.
- **Larva (Caterpillar)** - The soft and delicate larvae that hatch from butterfly eggs are known as caterpillars. They are usually multi-colored or camouflaged, and many caterpillars are hairy, since the hairs can protect them from other insects and some birds that might want to eat them. Caterpillars spend almost all of their time eating, and they also can shed their skins, just like snakes, many times during this stage which can last for a few weeks or months.
- **Pupa (Chrysalis)** - When a caterpillar is ready, it finds a hidden place, usually on the underside a leaf, to stick itself to and cover itself with a hard shell. Inside, it begins to grow and change. During this stage, it is called a chrysalis. The chrysalis starts to grow all of the parts that we recognize on butterflies, like wings, legs, and a long mouth. Again, this stage may last a few weeks or months.
- **Adult Butterfly (Imago)** - Finally, the adult butterfly emerges from its hard casing and starts to fly. In this stage, the adult (also called an imago) has a long mouth called a proboscis used to suck up food like flower nectar. It also has light and fragile wings which allow it to move around and mate so that the cycle can begin again.
- **Pollination** - according to Webb, is the process by which pollens are transferred from male to female parts of flowers and reproduce sexually even over large areas. Nectar from flowers contains nutritious vitamins, lipids, sugar, amino acids, and other nutrients, making it an important food source for pollinators. Butterflies are pollinators as well, and they visit the flower to eat nectar; tiny scales on the butterfly bodies brush against the anthers, and pollen adheres to the scales. When the butterfly visits another flower, the pollen attached to its scales brushes up against the stigma of the flower. These insects are appealing and intriguing [14]. Baker demonstrates that the nectar of many flowers, which adult Lepidoptera feed on, contains significant concentrations of a wide range of amino acids.
- **Provide Food for Other Organisms** - Butterflies feed a variety of animals, including birds, reptiles, and amphibians, while caterpillars feed scorpions and ants on occasion. Some flies' and wasps' eggs live as parasites inside the caterpillar's body and feed on it. If butterfly populations decline, so will the populations of birds, mice, and other animals that rely on them for food. This loss will bring the entire ecosystem to a halt [19]. Stephen Dickie elaborates: "Birds plan their entire breeding season around the abundance of caterpillars. There will be less food for developing chicks if butterflies and caterpillars are depleted."
- **Predators** - Some butterfly larvae, for example, feed on harmful insects. Because hoverfly larvae are aphid predators [33], caterpillars are also used as biological pest control.
- **The chart of butterfly occupying in forest of state wise –**



- **CONCLUSION**

Butterfly monitoring techniques should be developed for open habitats such as grasslands. Not all rare species live in habitats that are easy to see across and negatively necessitating one approach to monitoring the Miami Blue. A particularly good butterfly that lives on these shrubby habitats. The preliminary step in monitoring Miami Blue diversity are surveys consisting of butterfly counts in semi-circular plants.

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ANALYSES OF PROBLEM FACED BY STUDENT ON ONLINE EDUCATION DURING COVID-19 SITUATION IN INDIA**¹Aditya Chauhan and ²Prof. Shailaja Dadasaheb Bhosle**¹Student and ²B.A Department, Shri Ram College of Commerce**ABSTRACT**

The covid-19 epidemic in India altered the educational system for all pupils. Students can learn from the comfort of their own homes using an online system. During the Corona pandemic, all students and teachers encountered numerous difficulties because it was their first time using an online system. All work is done from home, and it is paperless and accessible at any time by mobile or computer.

Keywords: covid-19, educational system, pandemic, encountered numerous, etc.

INTRODUCTION

Since its conception, the internet has evolved. It was practically non-existent for the previous 20 years. Years into the world's largest and most transparent government Ever constructed knowledge database Individuals' conduct has changed over time. Online The educational landscape is changing. Traditional learning environments and the construction of education are more accessible than they have ever been; there was something more than distance learning in the twenty-first century. The phrase "education" refers to learning that takes place in a classroom setting over the internet. Students use the internet to get information about their classes on their phones or at home PCs. All of a student's work or activities are done through an internet system, which is referred to as online education. In that case, there are numerous issues that must be addressed.

PROBLEMS FACED BY STUDENTS:-

Around 250 million pupils in India were affected by the closure of schools and colleges as a result of the covid-19-induced lockdown. During the pandemic, public and private schools faced a number of issues, including an increase in dropouts, learning losses, and the digital gap.

All students have faced several challenges in Covid-19 as a result of using the online learning system at home:

- 1) During lectures, there was a voice and video difficulty due to a poor Internet connection.
- 2) Loss of Internet connection during examinations or lectures.

SOME ADVANTAGES & DISADVANTAGES:-**Advantages:-**

All students save time by attending an online lecture instead of going to school or college.

- All meetings and lectures may be held anywhere in the world with online education. • Online learning ensures that all students who attend the lecture are properly accounted for.
- Critical thinking abilities are developed through online learning or lectures.

Disadvantages:-

- Inability to concentrate on a screen during an online class or lecture.
- There are certain technical issues with online learning or classes.
- Feelings of isolation while learning online or at a lecture.
- During an online lecture or learning session, there is a lack of trust between the teacher and the pupils.

Effecs:

The unusual circumstance of COVID-19 prompted the Indian government to order educational institutions to move to an online manner in order to reduce student losses as a result of the epidemic. The current study aims to investigate the impact of online learning, which was established as a stop-gap measure in India during the pandemic. From June 1 to 15, 2020, a survey (N=289) was conducted via Facebook and WhatsApp to better evaluate the accessibility and effectiveness of online learning, as well as the limits that students in higher education across the country encountered during the pandemic's peak times.

The data analysis and interpretation demonstrated that students adapted to online learning in a short period of time, with just 33.21 percent expressing dissatisfaction with the online learning modality. Because of the Covid-19 outbreak and the resulting lengthy lockdown, working and studying from home has become the new normal.

Though the concept of online learning existed prior to the outbreak, it has surely reached a new level of importance and intensity in these hard times.

While e-learning has emerged as the biggest saviour in the wake of educational institution closures, it has also brought with it its own set of problems.

All parties, including students, teachers, and institutions, must overcome the issues that have arisen as a result of these hurriedly implemented online learning programmes.

In many cases, the crucial factor in deciding whether or not to use a technology platform was whether or not it was free. As a result, a lot of things happened

CONCLUSION

As a result of the Covid-19 outage, online teaching and learning has been widely embraced all across the world. However, online programmes are losing their attraction and reverting to the same rate at which they were formed due to the abrupt acceptance and constant adaptation of online classes without face-to-face encounters. Too much of anything is bad, and online education is no exception.

COVID-19 affects all physical learning modalities employed in educational institutions worldwide. Academic institutions' higher authority used online learning to continue their studies. Despite the fact that online learning appears to be beneficial in terms of protecting students' and faculty's health in the face of the COVID-19 outbreak, other researchers feel it may not be as successful as it appears. India, for example, is a developing country.

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STUDY OF PLASTIC SIDE EFFECT ON ENVIRONMENT

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• ABSTRACT

Plastic pollution results from the accumulation of plastic – based items in the environment, posing a threat to animals and the human food chain. The plastics contain a chemicals structure that makes them resistant to environmental degradation, such as corrosion and high levels of pollution from gradual disintegration. Plastic pollution is caused by a variety of plastic goods, each of which has a different chemicals structure. The polymerization and natural degradation process determine. Depending on their size, plastic pollutants are classified as micromesh or macro rubbish.

Keyword: Plastic, Advantage and Disadvantage.

• INTRODUCTION

Dr. Leo Baekeland he then made the first world’s first synthetic plastic called Bakelite. This marks the start of modern plastics industry. Hermann Staudinger proved the existence of what we know today as polymers in 1920. A polymeric plastic made from phenol and formaldehyde, Bakelite was one of the earliest synthetic materials to transform the material basis of modern life. It was named for its inventor, Leo Hendricks Baekeland who discovered the plastic in 1907.

Bakelite in solid colours is the most recognizable type even without employing testing measures. The most reality found colours are yellow, from butter yellow to dark butterscotch followed by various shades of green.

Bakelite not made anymore because; there are several reasons. One half of the chemical reaction is formaldehyde, which has a bad reputation. The other half is phenol which is a derived petro chemical and had its own poor health record. Bakelite is thermo-setting material which means that it cannot be melted down and used again.

❖ IMPORTANT

1. Plastic is durable and provides protection from contaminants and the element. It reduces food waste by preserving food and increasing its shelf life. It protects food against pests, microbes and humidity without this protection food is more likely to get damaged and become unusable.
2. Plastic are made from raw, materials like natural gas, oil or plants which are refined into ethane and propane. Ethane and propane are then treated with heat in a process called “cracking” which turns into ethylene and propylene. These materials are combined together to create different polymers.
3. The uses of plastic are versatile, hygienic, light weight, flexible and highly durable. It accounts for the largest usage of plastic worldwide and is used in packaging applications including bottles, drums, trays, boxes, cups, containers and vending packaging, baby products and protection packaging.
4. The plastic helps protect the environment by reducing waste, lowering greenhouse gas emissions and saving energy at home, at work and on the road. Building products are making our homes significantly more energy efficient while reducing costs of heating and cooling.

❖ PLASTICS ADVANTAGES AND DISADVANTAGE

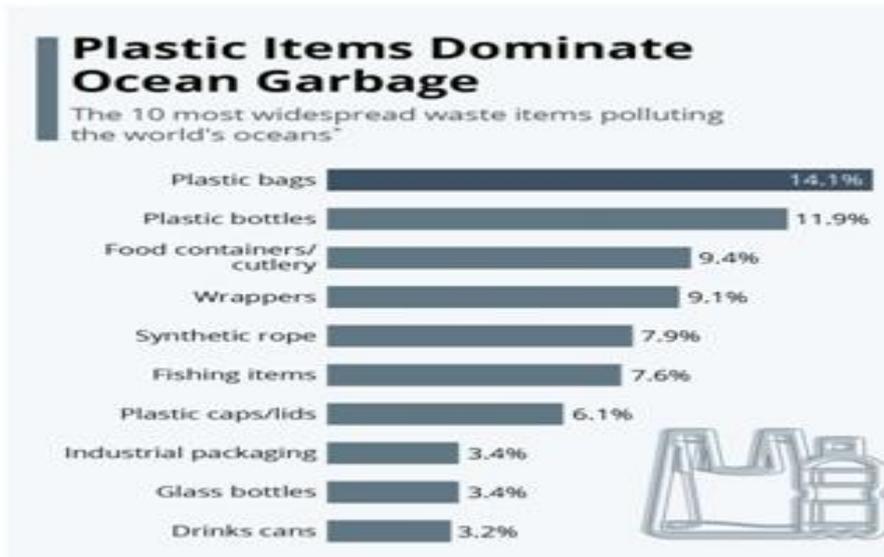
Advantages of plastic	Disadvantage of plastic
❖ Plastic is a light weight material.	❖ Plastic is a finite resource that cannot be replenished.
❖ They have a great polish and can be moulded easily.	❖ Plastic is soft material.
❖ They have a high level of toughness and strength.	❖ CANCER is caused by plastic.
❖ They have a high shock absorbing capacity.	❖ At low temperatures, plastics get embrittled.
❖ Plastic is cheap to produce.	❖ When plastic are burnt it produces toxic fumes.

❖ CLASSIFICATION OF PLASTIC

Plastic can be divided into following two types -

- Thermoplastics
- Thermosetting plastics
- Thermoplastics –Plastics that are thermoplastics polymers are plastics that can be moulded over and over again using heat. Polyethne, polystyrene, and PVC are examples of thermoplastics. Carry bags, bottles, and other items are made from thermoplastic polymers. Thermoplastics are plastics that set a specific temperature.
- Thermosetting plastic – Thermoplastic polymers that cannot mould repeatedly using heat. Thermoses polymers are another name for them. Bakelite, melamine, and other thermosetting plastics are example. Thermosetting plastics are used to make utensil handles, switches, and fire – resistant fabric, among other things.

❖ **THE DATA ANALYSIS OF PLASTIC**



❖ **CONCLUSION**

The accumulation of tainted plastic material in the environment causes plastic pollution. Plastic is biodegradable material. Plastic garbage pollutes our water when it enters bodies of water such as river, seas, and even the ocean. To successfully reduce plastics trash, we must reduce our consumption of plastic. This entails changing our daily routines such as not using plastics when a better alternative exists and only using plastics when absolutely required. Plastic bags can be reused or repurposed for a variety of uses. It is vital to think about how they can be reused before disposing of them.

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A STUDY ON IMPACT OF ADVERTISEMENT ON CHILDREN AND TEEN

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ABSTRACT

It is observed that there are lot of advertisements for Children and teens growing. There are traditional or old medias like television, newspapers, magazines ,radio in addition to recent concepts, such as Internet and mobile advertising. Advertisements create a long lasting impact on children. Because of Advertisements children try to imitate stunts shown in advertisements by their favorite actors. They see them in television and movies, while surfing them online, There are many advertisements on the street, and they frequently act as marketing messages themselves .children wish to wear branded clothing or accessories. Advertisers is making a great deal money targeting young audiences. Children and teens spend lot money on consumer goods. They also play a key role in directing the consumer spending of their parent. I have prepared this research paper to understand the effects of advertisements on teen and children.

INTRODUCTION

Advertisers always try to target children by using cartoon characters like Chota Bheem, Doremon to promote their product which will make the kids to have that product. Many times advertisers also target children by having famous sports stars or actors or actress to advertise their products. Advertisers are spending millions of money just to get kids hooked on their products.

Children remember advertisements as they are persistently broadcast on television and different medias and channels. This can lead to various mental and physical complications. In this post, we will talk about how advertisements affect children and teen and how to tackle with them. The exposure to commercial messages among children and teens is over and over again, . Young people's exposure to marketing messages affects health ,behaviors and psychological well-being. Secondly, due to children's developing cognitive and emotional competence, Children are not as well equipped as adult people to judge the significance of the messages. Thirdly, advertiser are using new media platforms to pursue children and teens more forcefully with serious implication.

When the children grow up ,they watch plenty of commercial advertisement for cereal, junk foods toys, dresses, and video games even cigarette advertisements. They buy or eat something because they saw it on television and other social medias again and again.

It is observed that advertising often targets teen and children because they are more at risk to being influenced by those things when compared to adults. In this research paper, we will discuss that advertising is actually influencing children or not, and what are positive and negative effects on them.

OBJECTIVE OF STUDY

- 1) To understand the impact of advertisements on children.
- 2) To study the positive and negative effects of advertising on children.
- 3) To examine the ways to use what we know about the advertising and marketing industry to encourage protective behaviors in children.
- 4) To see cautious and limit their children's exposure to advertising.
- 5) To evaluate the strategies that parents can take to prevent children from harmful effects of advertisements.

RESEARCH METHODOLOGY

This research is careful study regarding the effects of advertisements on children by scientific methods. Here researcher have gathered a systematic of data and information and its analysis it by secondary data method. Various websites, newspapers, journals, articles are used as a source for collecting information.

Following Products Advertised for Children**1 Food Stuff**

Children are promoted to a variety of non-healthy and junk foods, from cereals, soft drinks to candy, snacks and fast food. They don't see many commercials touting vegetables or healthier foods. A large number of children in the country are at risk for obesity.

Eg: Lays, Kurkure, Maggi, Pepsi, and Coke.

2 Branded Garments and Cloths

Kids are often targeted by advertisers of clothing, particularly around back-to-school time. Children are also attracted to fancy clothing items like shorts, dresses and T-shirts, capri, track pants ect. Advertisers also promote for winter clothing, like jackets, and high-end footwear for children. The attractiveness among kids of a particular style of clothing is achieved through repetitive mass marketing directly to children who have their own pocket money to spend or they persuade their parents to make the buy that product.

Eg: Myntra, First Cry, Max Fashion shops, Amazon sites

3 Toys

Toys symbolize the backbone of advertising bound for children. Advertisers know that if they can make attractive toy for kids, parents will purchase the product, which will increase sales and profits. Kids are an excited audience for toys,

Eg: Toddlers learning kit, Mapology puzzles, Pop up Fidget.

4 Video Games

As a result of child-focused advertising, online digital media services like PlayStation and the Xbox have dramatically increased the popularity of video games. Advertisers bombard children with ads proclaiming the "latest and greatest" game, creating an urgency in children who "must have" the game. Eg Marvel's avenger, pokemon shields

5 Phones and Electronic Media

Cell phones, computers, tablets and other electronic equipment are for all type of consumers. Promoting phones and devices to children allows advertisers to enjoy two benefits: Electronics can be promoted by advertisers as something to own, as well as serving as a vehicle through which advertising can occur. For example, children are exposed to myriad ads enticing them to purchase a computer; once they have one, they are besieged by more advertising coming at them through the internet on that same computer.

Eg: smart phones like Samsung, vivo phones

POSITIVE EFFECTS OF ADVERTISEMENTS ON CHILDREN AND TEEN

Advertisements can also benefit children in different ways. Here are a few positive effects of advertising on children.

- Informational Advertisements can be a reason of information. Some advertisements, particularly public service announcements present innovations and technological milestones that can offer a good learning prospect to the child.
- Many times Advertisements educate children and help to increase knowledge about the various new products and innovations in the market.
- Meaningful advertisements encourage hygienic habits, dental hygiene, and body hygiene. It help to hammer good habits in children.
- Healthy food choices advertised the right way can also prompt the child to make a decision on for more balanced and healthy diet.
- Advertisements with social messages, such as helping the elders and saving water, save electricity, plant trees, avoid pollution can positively impact children and create a sense of social responsibility.
- Advertisements can also prove to be inspiring to encourage children to choose a profession or chase a specific dream. They can help them develop a passion for the same and work towards it from a young age.
- Advertisements spread awareness about road safety, risks of consuming tobacco and alcohol, etc. Such advertisements educate and warn children about the dangers of such activities.
- Environmental protection advertisements capture the attention of children towards the problem and can encourage them to be a part of the solution. Many times teen take part in community help.
- Some advertisements also help influence children to eat healthy food and exercise regularly.

Negative Effects of Advertising on Children and Teen

According to survey, an average child is exposed to more than 42,000 TV commercials a year. Studies also suggest that children can recall the content after a single exposure to a commercial and may express a desire to buy the product.

Let us consider the negative effects of advertising on children and teen.

- Advertisements convince parents to purchase a product that can be a real problem. Researchers suggest that kids who look at television and social media are likely to order more toys or other products that is being advertised.
- Advertisements on cigarettes, alcohol, chewing gum, tobacco can have a shocking effect on children and teens. Tobacco and alcohol advertising often targets youth, presenting them as the key to improving self-image freedom ,and liberty, thus frustrating children to use them.
- Brands advertisements usually create a convincing purpose so that the users buy their products. By repeatedly watching these ads, children might choose to buy even when they do not need the product.
- Certain advertisements show stunts that can be very unsafe. As they do come with a statutory warning, it may often be ignored, and kids may attempt to copy these stunts.
- Advertisements commonly use young and beautiful women to advertise beauty products and cosmetics. It has become common to use only fair-skinned models, this creates wrong impression that only fair skin girls is beautiful and acceptable in society. Similarly, some ads perpetuate the stereotype that a slim body is healthy and beautiful. Such advertisements make children aware of their appearance and develop a negative body image..
- False imaging is another issue with advertisements that present things or events in an unrealistic manner and children tend to fall for it.
- Advertisements may also develop a selfish idea of the world in the children. When their innocent minds are regularly being exposed to content which portrays that having the best things is necessary for a comfortable life
- Advertisements may create brand perception and an attraction towards expensive branded items can be developed.
- A large portion of the food items advertised is junk food . These can influence the eating habits of the child and promote an unhealthy standard of living.
- Advertisements can also be a leading factor in influencing the choice of toys, clothes or luxuries of a child.
- Children may also tend to have lower confidence if they believe themselves to be inferior for not owning the various products that are advertised, especially if their friends purchase these products.
- As many advertisements have fruitfully managed to blur the line between true and unreal life, children tend to believe the wrong things and lose touch with reality..
- Some advertisements may contain aggressive and destructive content geared toward adults. But when children watch these, they might misinterpret them and resort harass peers or siblings. Such negative behaviors developed in early childhood may stay with them into adulthood.

Tips for Parents to Avoid Their Kids from the Negative Effects of Advertising.

Parents play a key role in negating the harmful effects of advertising on children. It is in their hands to prevent their children's minds from getting influenced. Nowadays, advertisements are not limited to television or radio only but there are lot of advertisements on Internet and even school books ,school magazines, supplies. Therefore, parents need to be alert and limit their children's exposure to advertising .There need some effort and watch and care from , parents that can help your children see the reality of advertisements. When used rightly, advertisements can act as an essential tool for learning about the products and developments in the market. Sometimes, children may also learn some good values and habits from advertisements.

Unlike a few years ago, the marketing efforts of brands selling children's products or even certain adult products these days are directly targeted at children. Hence, it becomes important for parents to become active participants in helping the children develop critical opinion of the advertisements shown around them and teaching them the value of the non-materialistic comforts in life.

Here are a few things that you can do to reduce the negative effects of advertisements on young children.

- Parents can see that their children are allowed to watch TV or use the computer for a longer time . They should give a specific time to kids to sit in front of your TV or computer It is also advised that you monitor the content that your kids are watching.

- Parents should encourage children to go out on playground or garden and play with friends for at least two hour daily. This will help divert their minds from the Internet and advertisements.
- Parents can introduce educational channels for younger children. Like history channel, Sony Yay, national geographic channel, Discovery channel and Animal Planet, and encourage them to watch these educational programs
- Parents can sit with kids while they are watching television. By doing this, they can give explanation and educate them to differentiate between good and bad content.
- When your child asks for a specific product, have a talk with children about why they want it. This will give you a chance to explain the good and bad points of product or advertisement.
- Parents can see that you are not giving any product in to your kid demands. If you are sure that the product is not unhealthy for your kid. Then only buy the product.
- Parents can Point out the mistakes in the advertisements that give a realistic picture to your child. This can help develop a critical judgment and thinking ability in the child.
- Parents can take care that when your children are entering their teenage years, educate them about the ill effects tobacco and alcohol.
- Parents can help your child learn the difference between ‘needs’ and ‘wants’. And teach them to only ask for something that they need. Parents can have a regular conversation with children.
- Parents should see that children are not more under the influence of their friends and peer group.

CONCLUSION

In a world of innovative advertisements that appear just about everywhere, it will be hard to safeguard your child from being exposed to most of them. Advertisement agencies advertise from all social media like internet, television, new papers, to luggage tags in the airport to advertise products. Your child will without doubt look at the advertisements and purchase the products that has been advertised. So the best way to prevent the negativity caused by these adverts is to educate your child about the marketing world.

Advertisement is an excellent media no doubt about in that. sometimes children can be affected in wrong way such as more time watching causes health problems like eyesight effect, obesity, disturb sleep and prompt to do stunts causes dangerous. children also influence their parents buying behavior. It is a natural tendency of human beings that they are attracted to negatives rather than positives. children with immature mind attracted to false advertisements. As a coin as both sides advertisement have both pros and cons, but we should use it in an effective manner. It is completely in our hands. Parents should educate their children about our surroundings. As a government part they should maintain strict rules and regulations on advertisements.

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DEVELOPMENT IN TECHNOLOGY USING NLP (NATURAL LANGUAGE PROCESSING)

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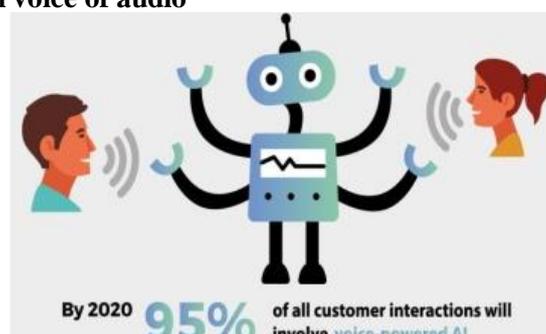
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ABSTRACT

With the help of artificial intelligence computers is able to talk like human being, can think like human being. We can see number of applications where computer uses artificial intelligence like in Robot, in neural networks etc. The human language is often difficult because it is basically depend on many complex variables including dialects and social context. Here we can use Natural language processing. It is all about interpreting the complexity of our natural, spoken conversational language. It is a field of computational linguistic, which we can call it as a new science. It looks like very easy task but researchers are doing research in this field since from 70 years. Any Language is very complicated especially the spoken kind of language. With the help of NLP human being is able to have a communication with machine. It uses common grammar rules and syntax and semantic rules to form the sentences. And make it understand to the other end. Now day's computers as well as other technologies can have communication with machine. These are the main advantages of Natural language processing.

INTRODUCTION

As we can see the developments in the field computer generations there is a huge development in computers. In 1960 the first generation of computer occurred. In this generation vacuum tubes were used in computer which was able to perform the basics tasks. In the second generation of transistors were used. Transistors allow computers to be smaller. In the third generation of computers technology has shifted from huge transistors to integrated circuits. In the first generation microprocessor chip was invented. The technology behind the fifth generation of computers is Artificial Intelligence. With the help of artificial intelligence computers is able to talk like human being, can think like human being. We can see number of applications where computer uses artificial intelligence like in Robot, in neural networks etc. As we can see today's computers can talk like human being there is a one technique behind it and it is Natural language processing. Natural language processing is having ability of computer code to understand human language as it is spoken. The development of this application is little bit difficult as it needs human to speak to them in a computer programming language which is highly structured. The human language is often difficult because it is basically depend on many complex variables including dialects and social context. Here we can use Natural language processing. It is all about interpreting the complexity of our natural, spoken conversational language. It is a field of computational linguistic, which we can call it as a new science. It looks like very easy task but researchers are doing research in this field since from 70 years. Any Language is very complicated especially the spoken kind of language. The language have context, emotions, slang and the meaning that connects it all are all extremely difficult to sort map and analyze. One of the most hard and fanatic things AI can do is a speak, write, listening and understand human language. Natural language processing is form of AI that concentrate the meaning from human language to decisions based on the information. This technology is still in growing condition there are many ways through which natural language processing is used today. Everyday human exchange countless words with other humans to get all kinds of things but communication is much more than words. There is context, body language, intonation that helps us understand the intent of the words when we communicate with each other. That is what natural language processing the ability for machine to understand human speech. Today natural language processing is used in huge number of applications. The simple concept of Natural language processing make uses of Artificial intelligence and Machine learning to take out meaning. The meaning is then collected as part of data set or to produce a desired output. The simple process of Natural language is as below in the figure:-

1. Machine catches a human voice of audio

2. Audio is converted into normal text**3. The text is analyzed to confirm the meaning****4. The same meaning is presented to a computer user.**

Depending on the natural language programming the presentation of that meaning may be through pure text, a text to speech or within a graphical representation or it may be a chart also. Understanding the human language is difficult for human being itself. The main challenge in this point is how to make machine to understand only words but also how the concepts are connected to deliver the proposed words, and also how the ideas are connected to create intended message.

The Natural Language Processing was developed in above steps:-

- In 1950:- the automatic transformation of more than sixty Russian sentences into English. The authors claimed that machine had transformed the sentences.
- 1960:- A successful natural language processing systems developed in the 1960.
- In 1970:- many programmers began to write conceptual ontologism which structured real world information into computer understandable data.
- In 1980 and 1990 symbolic methods were introduced in Natural language processing. An important development took place to the statistical turn in 1990 was the rising importance of quantitative evaluation in the same period.
- In 1990s many important successes have took place on statistical methods in Natural language processing in the field of machine translation. These systems were able to take advantage of existing multilingual text that had been produced in Canada and the European union.
- In 2000s there was a great growth in web, increasing the growth of raw language data has become available since the mid 1990. The main focus of researchers was on supervised and semi supervised learning methods. Such algorithms can learn from data that has not been fully explained data with the desired answers or using a combination of explained or non explained data. This task was little bit difficult than supervised learning.

Machine learning AIs have advanced to the level today where natural language is being explored can analyze, extract meaning from and determine actionable insights from syntax and semantics in text.

Methods:-

Natural language processing is a cutting edge development for a number of reasons. Prior to NLP, organizations using AI and machine learning had already tested their data. NLP now provides them with tools not only to collect advanced data, but also to analyze the content of information both language and numerical data. NLP obtains results driven by organizational data, using language as opposed to mere numbers. Apart from data analysis capabilities NLP has number of benefits that a company in any industry would appreciate.

- ✓ NLP allows non subject matter experts to obtain answers to their questions.
- ✓ Creates a structure from a highly informal data source.
- ✓ It helps identify root cause of product issues quicker.
- ✓ NLP identify profitable customers and understand the reasons for their loyalty.
- ✓ It can recognize and classify fraudulent behavior of claims.
- ✓ It can understand many different languages, jargon and even slang.
- ✓ NLP can also reduce customer complaints by continually identifying styles in customer communication.
- ✓ It can even comprehend the product offerings of competitors.

Following are the capabilities of NLP

- 1) Smart assistants:- Think of Siri and Alexa software – these virtual smart assistants rely on natural language processing to understand inflection and tone to complete their tasks.
- 2) Search results:- Search engines often use NLP for continuous understanding searcher intent and provide relevant results faster. It can even generate responses based on trends.
- 3) Text analytics:-Natural language processing can analyze text sources from email to social media posts and beyond to give companies insights beyond numbers and figures. NLP text analytics convert unstructured text and communication into actionable and organized data for analysis using different linguistic, statistical and machine learning techniques.
- 4) Sentiment analysis:- Sentiment analysis is arguably the most exciting features of natural language processing. Early NLP capabilities allowed organizations to collect speech-to-text communication or other textural variant, but it couldn't accurately determine its full meaning. Today natural language processing can filter out and understand nuances and feelings in human voices and text giving organizations unparalleled insight.
- 5) Text classification:- Text classification allows NLP & AI technologies to automatically understand process and categorized based on predetermined tags and categories.
- 6) Text extraction:- Also known as named entity recognition, NLP can automatically identify specific named entities within text, such as names and places, or exclusive information like key or even product names or styles.
- 7) Summary of text:- Summary of text is widely used in education, research or healthcare settings as we use natural language processing to process text faster. NLP summarize text based on exact key phrases within the text, or it can even summarize based on determined meanings and interfaces, providing a paraphrased summary.
- 8) Market intelligence:- Natural language processing can help marketers and marketers and market researchers by breaking down topics, sentiment, keywords and intent in unstructured data from any variety of text or customer communication.
- 9) Intent classification:- This capability allows companies to more accurately identify the purpose within text. It can benefit customer service teams and sales teams with faster identification sales leads through their emails, social media posts and other communication.

More techniques and methods used by natural language processing are:- basically syntax and semantic analysis are two main techniques used with natural language processing. Syntax used basically used to form words in a sentence to make grammatical language. Natural language processing uses syntax assesses meaning from languages which is based on grammatical rules. We can form syntax in various ways.

- 1) (Parsing) Analysis: This is analysis by sentence structure: This is useful for more complicated processing tasks.
- 2) Word segmentation: This is the act of taking string of text and deriving word forms it. The algorithm will be able to parse the page and determine if the words are the page and recognize that the words are divided by white spaces.
- 3) Sentence breaking: This places sentence boundaries in large texts. The algorithm can recognize the period that splits up the sentences using breaking.
- 4) Morphological separation: This divides words into smaller parts called morphemes. This is especially helpful in machine translation and speech recognition.
- 5) Stemming: This divides words with inflection in them to root forms. The algorithm will be able to detect the origin or root of the word. This would be useful if a user was analyzing a text for all instances of the word bark as well as conjunction.

Semantic involves the use of and meaning behind words. Natural language processing applies algorithm to understand the meaning and structure of sentences. Semantic technique includes word sense recapitulate. The meaning of a word is based on surroundings or conditions.

RESULTS

Now days, Natural language Processing applications (technologies) are used in various fields in industry:-

1) Financial Institutions

- i) Using sentiment analysis financial institutions can analyze large amounts of market research and data finally use that insight to make more informed investment decisions and streamline risk management.
- ii) The NLP can assist banks and other security institutions to detect money laundering or other fraudulent situations.

2) Insurance

- i) Natural language processing can be leveraged to help insurers identify fraudulent claims. By analyzing customer communication and even social media profiles, AI can detect it indicators of fraud and flag such claims for further inspection.
- ii) Other way insurers can utilize natural language processing in their monitoring of the ultra competitive insurance market landscape. Using text mining and market intelligence features, insurers can get better read of what their competitors are doing and plan what products to bring to market to keep up or get a step ahead of their competition.

3) Manufacturing and Supply Chain

- i) To improve automation efforts and streamline the manufacturing pipeline, NLP can analyze thousands of shipment documents and give manufacturers better insight into what areas of their supply chain are residual Using this knowledge they can progress to certain steps in the process or practice or make logistical changes to optimize efficiency.
- ii) Manufacturers can leverage natural language processing capabilities by performing what is known as web scraping. NLP can scratch or scan online resources for information about industry benchmarks rates for transportation rates, fuel prices and labor costs. This data ultimately helps them compare their costs to market standards and identify cost saving opportunities.

3) Retail:-

- i) Retailers especially should be leveraging sentiment analysis. By analyzing customer sentiment towards their brands or products, retail companies can make more informed decisions across their business operations from product rollout to sales and marketing initiatives and even individual store performance. NLP leverages social media comments, customer's reviews and more turns them into actionable data that traders can use to improve their weaknesses and ultimately strengthen the brand.
- ii) NLP can also help improve customer loyalty by helping marketers understand it. By analyzing the feelings of communication and behavior of their greatest benefit customers, retail companies can get a better idea of what actions are causing instability shoppers.

4) Healthcare: -

- i) Natural languages processing is just beginning to help the healthcare field, and its potential applications are numerous. Currently it is helping researchers battling the COVID-19 pandemic in a diverse ways, namely by analyzing incoming email and live chat data from patient help lines to flag those with potential COVID-19 symptoms. This has allowed physician to proactively prioritize patients and get those in need of care into the hospital quicker.
- ii) It can help medical providers summarize log and utilize their notes and patient information faster and more accurately. Using text summarization and named entity recognition typically lengthy medical information can be quickly summarized and categorize based on important related keywords. This can help improve the diagnosis, treatment and outcome of the patient in the end.

Apart from this NLP can be used in above applications

Foundations: ML for NLP, NLP pipelines, Data gathering, Multilingual NLP, Text representation

Core tasks: Text classification, conversational agents, informational retrieval question answering.

General Applications: Spam classification, Calendar Event extraction, personal assistance, search engines.

Industry specific: Social media analysis retail data extraction, health records analysis, financial analysis, legal entity extraction Calendar event extraction, Personal assistants

Alexa: This software developed out of a predecessor named Ivona which was invented in Poland, inspired by A Space Odyssey and bought by Amazon in 2013. Alexa was inspired by the computer voice and conversational system on board the starship Enterprise in science fiction TV series and movies, beginning with Star Trek. Amazon developers chose the name Alexa because it has a stronger conjunction with the X which helps it be recognized with higher precision. The companion app is available from Apple App store, Google play and Amazon App store. The app can be used by owners of Alexa enabled device to install skills, control music manage alarms and view shopping lists. It also allows users to review the recognized text on the app screen and to send feedback to Amazon concerning whether the recognition was good or bad. A web interface is also available to set up compatible devices.

Siri app: Siri is virtual and voice controlled personal assistant app. This assistant first appeared on the iPhone 4s but Siri is also on iPod, iPod touch and Apple watch. Siri has developed with age. She has to keep contact with Alexa and Google assistant. Siri is a built-in personal assistant available to apple users. The idea behind this app is any user can talk to her and can ask her any type of questions. And Siri is going to give answer to the query. She can give the answer in English language. She is going to help you to solve any query. Siri is basically designed to provide you help through iPhone, iPad, iPod etc. You can ask her any type of questions or queries. And Siri is going to help you to solve the problem. Siri has access to every other built in application on your apple device- Mail, contacts, Message, Maps safari and so on.

There are number of tasks where NLP works. Some of them are real world applications. They are divided into subcategories. They are used to solve larger tasks. Some of the tasks have direct real-world applications, while others more commonly serve as subtasks that are used to aid in solving larger tasks. Most of the difficult tasks NLP can perform are

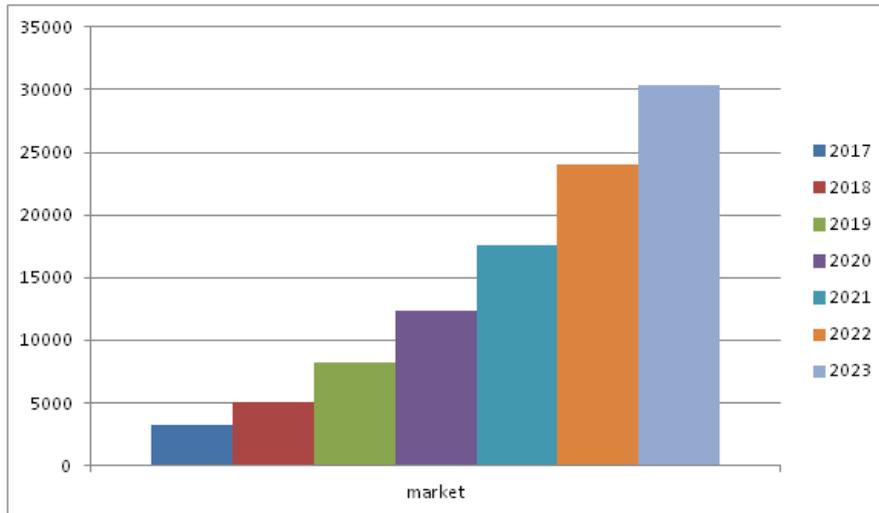
- 1) Optical Character recognition:-determine the corresponding text on the basis of given image.
- 2) Speech recognition tool:- It should be able to recognize the voice given as input. In natural speech there are hardly any gaps or pauses between given words, and so speech segmentation is necessary subtask.
- 3) Speech segmentation:- is a any sound clip of a human being or people we have to separate it into words.
- 4) Text to Text is a transformation is a units and produce a spoken representation. It is basically used to aid the visually impaired.

As we know computers have changed tremendously in number of generation like that it provided number facilities for human being through NLP. It is a main bridge between technology and human being. It uses natural grammar rules to communicate with human and machine.

CONCLUSION

Through natural language processing helps us to communicate with robot and human being which will help us to take the work done to its logical conclusion.

A 2019 Statistics report reveals that the NLP market will increase to 43.9 billion by 2025.



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LINEAR ALGEBRA & MATRIX IN MATHEMATICS

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ABSTRACT

In this we are presenting a study on the linear algebra and matrix in mathematics. Linear algebra is the branch of mathematics concerned with the study of vectors, vector spaces (also called linear spaces), linear maps (also called linear transformations), and systems of linear equations. Vector spaces are a central theme in modern mathematics; thus, linear algebra is widely used in both abstract algebra and functional analysis. Linear algebra also has a concrete representation in analytic geometry and it is generalized in operator theory. It has extensive applications in the natural sciences and the social sciences, since nonlinear models can often be approximated by linear ones.

Keywords: Linear Algebra, Matrix, Linear Spaces, n- Tuples, Vectors, Linear Equation

I. INTRODUCTION

Linear algebra had its beginnings in the study of vectors in Cartesian 2-space and 3-space. A vector, here, is a directed line segment, characterized by both its magnitude, represented by length, and its direction. Vectors can be used to represent physical entities such as forces, and they can be added to each other and multiplied with scalars, thus forming the first example of a real vector space. Modern linear algebra has been extended to consider spaces of arbitrary or infinite dimension. A vector space of dimension n is called an n -space. Most of the useful results from 2- and 3-space can be extended to these higher dimensional spaces. Although people cannot easily visualize vectors in n -space, such vectors or n -tuples are useful in representing data. Since vectors, as n -tuples, are ordered lists of n components, it is possible to summarize and manipulate data efficiently in this framework. For example, in economics, one can create and use, say, 8-dimensional vectors or 8-tuples to represent the Gross National Product of 8 countries. One can decide to display the GNP of 8 countries for a particular year, where the countries' order is specified, for example, (United States, United Kingdom, France, Germany, Spain, India, Japan, Australia), by using a vector $(v_1, v_2, v_3, v_4, v_5, v_6, v_7, v_8)$ where each country's GNP is in its respective position.

A vector space (or linear space), as a purely abstract concept about which theorems are proved, is part of abstract algebra, and is well integrated into this discipline. Some striking examples of this are the group of invertible linear maps or matrices, and the ring of linear maps of a vector space. Linear algebra also plays an important part in analysis, notably, in the description of higher order derivatives in vector analysis and the study of tensor products and alternating maps. In this abstract setting, the scalars with which an element of a vector space can be multiplied need not be numbers. The only requirement is that the scalars form a mathematical structure, called a field. In applications, this field is usually the field of real numbers or the field of complex numbers. Linear maps take elements from a linear space to another (or to itself), in a manner that is compatible with the addition and scalar multiplication given on the vector space(s). The set of all such transformations is itself a vector space. If a basis for a vector space is fixed, every linear transform can be represented by a table of numbers called a matrix. The detailed study of the properties of and algorithms acting on matrices, including determinants and eigenvectors, is considered to be part of linear algebra. One can say quite simply that the linear problems of mathematics - those that exhibit linearity in their behavior - are those most likely to be solved. For example differential calculus does a great deal with linear approximation to functions. The difference from nonlinear problems is very important in practice. The general method of finding a linear way to look at a problem, expressing this in terms of linear algebra, and solving it, if need be by matrix calculations, is one of the most generally applicable in mathematics.

A. LINEAR ALGEBRA

A line passing through the origin (blue, thick) in \mathbb{R}^3 is a linear subspace, a common object of study in linear algebra. Linear algebra is a branch of mathematics concerned with the study of vectors, vector spaces (also called linear spaces), linear maps (also called linear transformations), and systems of linear equations. Vector spaces are a central theme in modern mathematics; thus, linear algebra is widely used in International Journal of Modern Electronics and Communication Engineering. Linear algebra also has a concrete representation in analytic geometry and it is generalized in operator theory. It has extensive applications in the natural sciences and the social sciences, since nonlinear models can often be approximated by linear ones.

II. ELEMENTARY INTRODUCTION

Linear algebra had its beginnings in the study of vectors in Cartesian 2-space and 3-space. A vector, here, is a directed line segment, characterized by both its magnitude (also called length or norm) and its direction. The zero vector is an exception; it has zero magnitude and no direction. Vectors can be used to represent physical entities such as forces, and they can be added to each other and multiplied by scalars, thus forming the first example of a real vector space, where a distinction is made between "scalars", in this case real numbers, and "vectors". Modern linear algebra has been extended to consider spaces of arbitrary or infinite dimension. A vector space of dimension n is called an n -space. Most of the useful results from 2- and 3-space can be extended to these higher dimensional spaces. Although people cannot easily visualize vectors in n -space, such vectors or n -tuples are useful in representing data. Since vectors, as n -tuples, consist of n ordered components, data can be efficiently summarized and manipulated in this framework. For example, in economics, one can create and use, say, 8-dimensional vectors or 8-tuples to represent the gross national product of 8 countries. One can decide to display the GNP of 8 countries for a particular year, where the countries' order is specified, for example, (United States, United Kingdom, Armenia, Germany, Brazil, India, Japan, Bangladesh), by using a vector $(v_1, v_2, v_3, v_4, v_5, v_6, v_7, v_8)$ where each country's GNP is in its respective position.

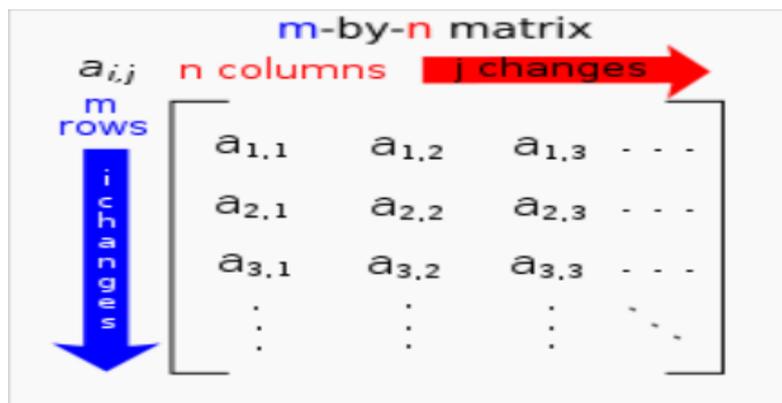
III. SOME USEFUL THEOREMS

- Every vector space has a basis.
- Any two bases of the same vector space have the same cardinality; equivalently, the dimension of a vector space is well-defined.
- A matrix is invertible if and only if its determinant is nonzero.
- A matrix is invertible if and only if the linear map represented by the matrix is an isomorphism.
- If a square matrix has a left inverse or a right inverse then it is invertible (see invertible matrix for other equivalent statements).
- A matrix is positive semidefinite if and only if each of its eigen values is greater than or equal to zero.
- A matrix is positive definite if and only if each of its eigen values is greater than zero.
- An $n \times n$ matrix is diagonalizable (i.e. there exists an invertible matrix P and a diagonal matrix D such that $A = PDP^{-1}$) if and only if it has n linearly independent eigenvectors.
- The spectral theorem states that a matrix is orthogonally diagonalizable if and only if it is symmetric. For more information regarding the invertability of a matrix, consult the invertable matrix article.

IV. LINEAR EQUATION

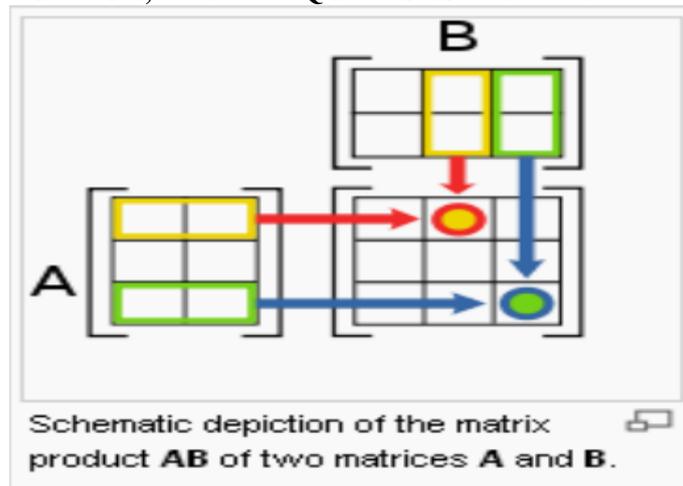
A linear equation is an algebraic equation in which each term is either a constant or the product of a constant and (the first power of) a single variable. Linear equations can have one or more variables. Linear equations occur abundantly in most subareas of mathematics and especially in applied mathematics. While they arise quite naturally when modeling many phenomena, they are particularly useful since many nonlinear equations may be reduced to linear equations by assuming that quantities of interest vary to only a small extent from some "background" state. Linear equations do not include exponents. This article considers the case of a single equation for which one searches the real solutions. All its content applies for complex solutions and, more generally for linear equations with coefficients and solutions in any field.

V. MATRIX



In mathematics, a matrix (plural matrices, or less commonly matrixes) is a rectangular array of numbers, as shown at the right. Matrices consisting of only one column or row are called vectors, while higher-dimensional, e.g. three-dimensional, arrays of numbers are called tensors. Matrices can be added and subtracted entrywise, and multiplied according to a rule corresponding to composition of linear transformations. These operations satisfy the usual identities, except that matrix multiplication is not commutative: the identity $AB=BA$ can fail. One use of matrices is to represent linear transformations, which are higher-dimensional analogs of linear functions of the form $f(x) = cx$, where c is a constant. Matrices can also keep track of the coefficients in a system of linear equations. For a square matrix, the determinant and inverse matrix (when it exists) govern the behavior of solutions to the corresponding system of linear equations, and eigen values and eigenvectors provide insight into the geometry of the associated linear transformation. Matrices find many applications. Physics makes use of them in various domains, for example in geometrical optics and matrix mechanics. The latter also led to studying in more detail matrices with an infinite number of rows and columns. Matrices encoding distances of knot points in a graph, such as cities connected by roads, are used in graph theory, and computer graphics use matrices to encode projections of three-dimensional space onto a two-dimensional screen. Matrix calculus generalizes classical analytical notions such as derivatives of functions or exponentials to matrices. The latter is a recurring need in solving ordinary differential equations. Serialism and dodecaphonism are musical movements of the 20th century that utilize a square mathematical matrix to determine the pattern of music intervals. Due to their widespread use, considerable effort has been made to develop efficient methods of matrix computing, particularly if the matrices are big. To this end, there are several matrix decomposition methods, which express matrices as products of other matrices with particular properties simplifying computations, both theoretically and practically. Sparse matrices, matrices consisting mostly of zeros, which occur, for example, in simulating mechanical experiments using the finite element method, often allow for more specifically tailored algorithms performing these tasks. The close relationship of matrices with linear transformations makes the former a key notion of linear algebra. Other types of entries, such as elements in more general mathematical fields or even rings are also used.

VI. MATRIX MULTIPLICATION, LINEAR EQUATIONS AND LINEAR TRANSFORMATION



Multiplication of two matrices is defined only if the number of columns of the left matrix is the same as the number of rows of the right matrix. If A is an m -by- n matrix and B is an n -by- p matrix, then their matrix product AB is the m -by- p matrix whose entries are given by:

$$[AB]_{i,j} = \sum_{r=1}^n A_{i,r}B_{r,j}; \quad \text{where } 1 \leq i \leq m \text{ and } 1 \leq j \leq p.$$

For example:

$$\begin{bmatrix} 1 & 0 & 2 \\ -1 & 3 & 1 \end{bmatrix} \times \begin{bmatrix} 3 & 1 \\ 2 & 1 \\ 1 & 0 \end{bmatrix} = \begin{bmatrix} 5 & 1 \\ 4 & 2 \end{bmatrix}$$

Matrix multiplication satisfies the rules $(AB)C = A(BC)$ (associativity), and $(A+B)C = AC+BC$ as well as $C(A+B) = CA+CB$ (left and right distributivity), whenever the size of the matrices is such that the various products are defined. The product AB may be defined without BA being defined, namely if A and B are m -by- n and n -by- k matrices, respectively, and $m \neq k$. Even if both products are defined, they need not be equal, i.e. generally one has $AB \neq BA$, i.e., matrix multiplication is not commutative, in marked contrast to (rational, real, or complex) numbers whose product is independent of the order of the factors.

• **Linear Equations**

A particular case of matrix multiplication is tightly linked to linear equations: if x designates a column vector (i.e. $n \times 1$ - matrix) of n variables x_1, x_2, \dots, x_n , and A is an m -by- n matrix, then the matrix equation $Ax = b$, where b is some $m \times 1$ -column vector, is equivalent to the system of linear equations

$$A_{1,1}x_1 + A_{1,2}x_2 + \dots + A_{1,n}x_n = b_1$$

$$A_{m,1}x_1 + A_{m,2}x_2 + \dots + A_{m,n}x_n = b_m$$

This way, matrices can be used to compactly write and deal with multiple linear equations, i.e. systems of linear equations.

• **Linear Transformation**

Matrices and matrix multiplication reveal their essential features when related to linear transformations, also known as linear maps. A real m -by- n matrix A gives rise to a linear transformation $R^n \rightarrow R^m$ mapping each vector x in R^n to the (matrix) product Ax , which is a vector in R^m . Conversely, each linear transformation $f : R^n \rightarrow R^m$ arises from a unique m -by- n matrix A : explicitly, the (i, j) -entry of A is the i th coordinate of $f(e_j)$, where $e_j = (0, \dots, 0, 1, 0, \dots, 0)$ is the unit vector with 1 in the j th position and 0 elsewhere. The matrix A is said to represent the linear map f , and A is called the transformation matrix of f . The following table shows a number of 2-by-2 matrices with the associated linear maps of R^2 . The blue original is mapped to the green grid and shapes, the origin $(0,0)$ is marked with a black point.

VII. CONCLUSIONS

Linear transformations and the associated symmetries play a key role in modern physics. Chemistry makes use of matrices in various ways, particularly since the use of quantum theory to discuss molecular bonding and spectroscopy. In this we are presenting a study on the linear algebra and matrix in mathematics. A linear equation is an algebraic equation in which each term is either a constant or the product of a constant and (the first power of) a single variable. Linear equations can have one or more variables. Linear algebra is the branch of mathematics concerned with the study of vectors, vector spaces (also called linear spaces), linear maps (also called linear transformations), and systems of linear equations.

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RECENT TRENDS IN HUMAN RESOURCES MANAGEMENT

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ABSTRACT

Human Resources and their management have changed as a result of continuous changes in technology, economic, social, and psychological understandings and structures. Human resources are an organization's most valuable asset. The purpose of this article is to identify contemporary trends in human resource development in addition to to review existing research on these trends. As a result, the following patterns emerge: Globalization and its consequences, Workforce Diversity, Employee Expectations, Changing Skill Requirements, Corporate Downsizing, Continuous Improvement Programs, Advanced Product Engineering Processes, Contingent Workforce, Mass Customization, Decentralized Work Sites, Employee Involvement, Technology, Health, Family Work-Life Balance, Confidentiality. According to the trend, relevant existing research is examined, and prospective research avenues are discussed.

The industries have created a new method for management people in organizations in response to the changing environment, which has an impact on both internal and external outcomes for the organization's and personnel's comfort. By implementing the trends, the new trends improve the quality of employees. A number of convergency problem area unit driving the requirement to rewrite the foundation. Technology is advancing at associate degree unprecedented rate. People area unit comparatively fast to adopt to current innovations, however organizations move at slower pace. Several still retain industrial age structure and practices that area unit long out of date. Human resources Management as planning, organizing, directing, controlling of procurement, development, compensation, intrgration,maintenance and separation of human resources to the end that industrial ,organizational and society objective achieved.

INTRODUCTION

The administration of human resources is known as human resource management (HRM or simply HR). It's a method of bringing people and organizations together to achieve mutual interests. It is a function in organizations that aims to maximize employee performance in order to achieve a company's strategic goals. Human Resource Management has changed dramatically over the last century, with a substantial shift in form and function occurring especially in the last two decades. In recent years, the function of the unit number of the convergency problem area that drives the requirement to rewrite following.

Human resources is human being in any company or business work. It plays a significant role in the workplace. It is a human power that uses its skills and abilities to improve the efficiency of a firm. Human resources have undergone a variety of changes as a result of the changing nature of the environment, ranging from traditional to professional aspects of management. Following international aspects of human resource management has resulted in a slew of new developments. Following international characteristics of human resources, India's economy has adopted a number of trends.

Human resources management can overcomes problem which is related to future requirement of human resources of an organization.Human resources manager can use his Skill to attract and retain qualified human resource. Now a days IHRM is new concept introduce in HRM. Here HR are selected global level.



Meaning

Human resources are latest up gradation brought in managing the human being for balancing the both organizational and human wellbeing for effective functioning of organization. Following the path of international trends Indian economy is too coming on their path to manage their man power smooth function.

RECENT TRENDS IN HUMAN RESOURCE MANAGEMENT

Human resources are the most recent advancement in human resource management, and they are used to balance both organizational and human well-being in order for an organization to run effectively. Following international trends, India's economy is putting in place measures to ensure the smooth operation of its manpower.

Work-force Diversity

Workforce diversity means equivalents and differences among employees in terms of age, cultural background, physical abilities and disabilities, race, religion, gender, and sexual orientation. No two humans are alike. Diversity is critically linked to the organization's strategic direction. The workforce composition is also changing over the years. Demands for equal pay for equal work, putting an end to gender difference and bias in certain occupations, the breaking down of glass ceiling have already been met. A family friendly organization is one that has flexible work schedules and provides such employee benefits such as child care. In addition to the diversity brought by gender and nationality, HRM must be aware of the age differences that exist in today's work force. HRM must train people of different age groups to effectively manage and to deal with each other and to respect the assortment of views that each offer. In situations like these a participative approach seems to work better. In current scenario, employing diversified workforce is a necessity for every organization but to manage such diversified workforce is also a big challenge for management.

Employee Expectations

Nowadays workers are better educated, more demanding and are ready to speech strong, violent and joint protest in case their expectations are not met. The list of financial and non-financial demands is ever-growing and increasing. In fast-changing industries such as software, telecom, entertainment and pharmaceuticals the turnover ratios are rising fast and if HR managers do not respond positively to employee expectations, the acquisition and development costs of recruits is going to mount up steadily. An efficient organization is, therefore required to anticipate and manage turnover through human resource planning, training schemes followed by appropriate compensation packages.

Changing Skill Requirements

Recruiting and developing skilled labor is important for any company concerned about cheapness, productivity, quality and managing a diverse work force effectively. Skill deficiencies translate into significant losses for the organization in terms of poor-quality work and lower productivity, increase in employee accidents and customer complaints. Since a growing number of jobs will require more education and higher levels of language than current ones, HRM practitioners and specialists will have to communicate this to educators and community leaders etc. Strategic human resource planning will have to carefully weigh the skill deficiencies and shortages. HRM department will have to devise suitable training a gaps & deficiencies.

Corporate Downsizing

Corporate downsizing means decrease of company workforce and is generally associated with corporate reorganization, or creating a leaner, meaner, company. Downsizing means reorganizing, reengineering, restructuring, or rightsizing.

The pressure to remain cost effective has also required many a firm to go lean, cutting down extra fat at each managerial level. The premise of downsizing is to reduce the number of workers employed by the organization. HRM people must ensure that proper communication must take place during this time. They must minimize the negative effects of rumors and ensure that individuals are kept informed with accurate data.

Continuous Improvement Programs

It is a process whereby an organization focus on quality and builds a better foundation to serve its customers. This often involves a companywide creativity to improve quality and productivity. The company changes its operations to focus on the customer and to involve workers in matters affecting them. Companies strive to improve everything that they do, from hiring quality people, to administrative paper processing, to meeting customer needs. HRM plays an important role in the execution of continuous improvement programs. HRM must prepare individuals for the change. This requires clear and wide communications of why the change will occur, what is to be expected and what effect it will have on employees.

Re-Engineering Work Processes for Improved Productivity

Although continuous improvement initiatives are positive starts in many of our organizations, they typically focus on ongoing incremental change. Such action is intuitively appealing – the constant and permanent search to make things better. Yet many companies function in an environment that is dynamic- facing rapid and constant change. Re-engineering occurs when more than 70% of the work processes in an organization are evaluated and altered. It requires organizational members to rethink what work should be done, how it is to be done and how to best implement these decisions. Re-engineering changes how organizations do their business and directly affects the employees. Re-engineering may leave certain employees frustrated and angry and unsure of what to expect. Accordingly, HRM must have mechanisms in place for employees to get appropriate direction of what to do and what to expect as well as assistance in dealing with the conflict that may infuse the organization. For re-engineering to generate its benefits HRM needs to offer skill training to its employees.

Contingent workforce

Contingent workers are individuals who are typically appointed for shorter periods of time. No organization can make the transition to a contingent workforce without sufficient planning. As such, when these strategic decisions are being made, HRM must be an active partner in these discussions. After its entire HRM department's responsibility to locate and bring into the organization these temporary workers. As temporary workers are brought in, HRM will also have the responsibility of quickly adapting them to the organization. HRM will also have to give some thought to how it will attract quality temporaries.

Mass Customization

There is a lot going on already within HR concerning mass customization, the optimal combination of mass production with customization. HR will need to take the tools of marketing around customization for consumers and clients and applying them to the task of talent segmentation. HR should develop principles for understanding the optimal level of customization in the employment relationship. Moreover, because customization will often mean that different groups of employees receive different employment arrangements based on their needs or the way they contribute, HR must develop principles that equip leaders to differences to employees.

Decentralized Work Sites

Work sites are getting more and more decentralized. Telecommuting capabilities that survive today have made it possible for the employees to be located anywhere on the globe. For HRM, decentralized work sites present a challenge. Much of that challenge revolves around training managers in how to establish and ensure appropriate work quality and on-time completion. Work at home may also require HRM to rethink its compensation policy. Will it pay by the hour, on a salary basis, or by the job performed? Also, because employees in decentralized work sites are full time employees of the organization as opposed to contingent workers, it will be organization's responsibility to ensure health and safety of the decentralized work force.

Employee Involvement

For today's organization's to be successful there are a number of employee involvement concepts that appear to be accepted. These are delegation, participative management, work teams, goal setting, employee training and empowering of employees. HRM has a significant role to play in employee involvement. What is needed is demonstrated leadership as well as supportive management. Employees need to be trained and that's w

Technology

With the current technological advancement and its projection in the future, it has brought in new eyes in the face of HRM. A number of computerized systems have been invented to help in the HRM of which they are seen as simplifier of HR functions in companies. For instance, the paper work files are being replaced by HRMIS which may be tailor made or Off the Shelf. These systems help in handling a lot of data on a chip other than having a room full of file shelves. What HRM is concerned with here is the

Family Work Life Balance

Over a long time now in HRM history it has been a big debate about family life work balance. Employees have been on toes of the employers to see if there could be justice done and on the other hand employers have been keen to minimize the effect of the same. The fact is a happy family is equal to a happy workforce. With the current trend HRM have to work it out that every employee's family to some extent is a happy one. Therefore, investing in what may seem out hand for the organization is inevitable. It is time HRM to convince management to organize family day out for the staff and their families, sacrifice sometimes for days off to enable employee's safety (confidence) of the data/information of staff, and therefore it is at the forefront of having to train personnel in operating such systems and developing the integrity of such personnel to handle the sensitivity

Globalization is a force that increasingly touches the lives of people living in all countries of the world. Country borders are metamorphosing from barriers to bridges as a result of trade liberalization, increasing levels of education among women and workers in developing countries, and advancement in technology. Goods, services and labor talent are now flowing more freely across the globe than ever before. The opportunities are abundant, organizations to improved job opportunities and higher wages for skilled workers.

Importance of Human Resource Management

With an understanding of how human capital affects organisational success, Strategic Management-HR increases the bottom line of the company. With the rapid development of the workforce and job patterns, human resource management is becoming increasingly important.

Wages and Salaries-HR compensation specialists develop realistic compensation structure that determine companies in the same industry or for employee of the same national competences with other business in the region. They conduct comprehensive wages and salary surveys to maintain compensation cost in line with the current financial condition of the organization and estimated revenue.

Benefit Analysis

Benefit specialists can reduce the company's costs associated with turnover, attrition and hiring replacement staff. They are important to organizations because they have the skills and expertise needed to negotiate group benefits packages for employees within the organization's budget and for economic conditions. They are also familiar with the benefits of work that can attract and retain workers. This can reduce the company's costs associated with turnover, attrition, and hiring replacement staff.

Employees Satisfaction

HR's employee relationship specialist assists the organisation in achieving high levels of performance, morale, and happiness across the workforce, thereby strengthening the employer-employee relationship. Employee feedback surveys, focus groups, and employee input on job happiness and how an employer may preserve a healthy working relationship are all things they do.

Recruitment and on-boarding -HR recruiters manage the employment process from screening to resume process to new employees. Generally, they determine the most effective methods of hiring applicants, which determine which applicant's tracking system is most appropriate for the organization's needs.

Recruitment Process-

HR professionals work closely with the hiring of managers to make good hiring decisions, tailored to the needs of the organization's workforce. They provide guidance to managers who are not well-known with HR or standard hiring processes to ensure that the company extends the offer to qualified candidates.

Safety and Risk Management-

Employers have an obligation to provide safe working conditions. Workplace safety and risk management experts from the HR area manage compliance by maintaining appropriate work logs and records of occupational safety and health administration rules in the United States and developing programs that reduce the number of workplace injuries and casualties.

Decrease Agency Exposure and Liability-HR employee relations specialists help agencies reduce their exposure and liability when it comes to complaints of unfair employment practises. They detect, investigate, and address unresolved workplace concerns, spreading and involving the organisation in legal difficulties relating to federal and state anti-discrimination and harassment laws outside its control.

Maintain Compliance

The team ensures that the company follows all federal and state labour rules. They also monitor compliance with applicable laws for federal or state government contracting agencies by analysing applicant flow logs, written acceptance action plans and a variety of analysis analyses, completing the paperwork required to document that agency employees are eligible to work in the United States.

Roles of HRM - Human resources managers oversee the most important of a successful business. A productive, thriving workforce. The human resources management team suggest to the management team how to strategically manage people as business resources. This includes recruiting and hiring employee with specific skill to meet the company current and future goals.

Human resources management deals with issues related to compensation, performance management, organizational development, safety, wellness, benefit, employee's motivation. Training and others.

HRM plays strategic role in managing people and the workplace culture and environment.

CONCLUSION

At last it is very vital function for business management. In business proper & skilful human resources are needed to achieve our target. Without proper human resources our target can not achieve. We can recruit proper human resources through training & development programme. Organisation achieve specialization through human resources management got wide scope in today's develop world. In the development era HRM got more importance for business profit. To many workers spoil work. But limited & skillful worker will work efficiently not waste more time to achieve target. to get more revenue HRM management & right placement.

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USE OF CRYPTOGRAPHY IN CLOUD COMPUTING

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ABSTRACT

Cloud computing is the on-demand accessibility of computer system resources, especially data storage and computing power, without direct active management by the user. Cloud computing provide prominent and efficient services in terms of software, hardware, server, databases etc. in highly-scalable and cost-effective manner than the traditional mode of in-housing computational infrastructure. In this paper, we discuss security threats regarding cloud computing and what protection mechanism need to be taken against that attacks. Nevertheless, lack of protection is the only major problem that hinders increased use of cloud computing. Furthermore, the complexity with which cloud computing manages data secrecy, and information security makes the market hesitant about cloud computing. The architecture of cloud models threatens the security of existing technologies when deployed in a cloud environment. Thus, users of cloud services should know the dangers of uploading data into this new environment. Therefore, in this paper different cryptography aspects that pose a threat to cloud computing are reviewed. This paper is a survey of specific security issues brought by the use of cryptography in a cloud computing system.

Key words: Cloud computing, Security, cloud security, security threats, cloud cryptography, cloud security controls. Cloud issues, Virtual machine layer, Data issues, Security issues ,Cloud encryption, cryptographic algorithms, cloud security infrastructure.

1. INTRODUCTION

Cloud is a computing technology which shared resources such as software, platform, storage, and information through internet on customer demand .It is a computing platform for sharing resources that consist of infrastructures, software, applications, and business procedures .It has three service models namely IaaS (Infrastructure as a service), PaaS (platform as a service), and SaaS (software as a service) and also three deployment model Public, Private and Hybrid.Cloud computing has a lot of security like network security, data protection, virtualization security, application integrity, and identity management. In this paper, we discuss use of cryptography in cloud computing.

II. CLOUD COMPUTING FEATURES

Cloud computing has various features, the most important of which are as follows:

1. Distributed Infrastructure: Cloud computing has a virtualized software framework, for example, networking capabilities, and optionally shared physical services. More further, cloud computing can also be used for storage. The cloud infrastructure, regardless of the deployment model, builds visible infrastructure according to the identified number of users

2. Dynamic Provisioning: Services for actual necessity are automatically permitted through software automation. The elaboration and compression of service capacity is optional. These dynamic scaling demands are targeted while maintaining high reliability and protection.

3. Network Access: An Internet connection is required to achieve an across-the-board access to devices, such as PCs, laptops, and mobile devices, by using standard-based API representatives established on HTTP. Deployments using cloud services include practical business applications to cutting-edge applications in the latest smart phones.

4. Managed Metering: A meter for managing and optimizing service and for supplying reporting and billing data is used in cloud computing. Cloud computing provides multiple sharing and scalable services as necessary from almost any location. The consumer is charged for these services on the basis of actual usage.

5. Resources Pooling: It means that the Cloud provider pulled the computing resources to provide services to multiple customers with the help of a multi-tenant model. There are different physical and virtual resources assigned and reassigned which depends on the demand of the customer. The customer generally has no control or information over the location of the provided resources but is able to specify location at a higher level of abstraction.

6. On-Demand Self-Service: It is one of the important and valuable features of Cloud Computing as the user can continuously monitor the server uptime, capabilities, and allotted network storage. With this feature, the user can also monitor the computing capabilities.

7. Easy Maintenance: The servers are easily maintained and the downtime is very low and even in some cases, there is no downtime. Cloud Computing comes up with an update every time by gradually making it better. The updates are more compatible with the devices and perform faster than older ones along with the bugs which are fixed.

8. Large Network Access: The user can access the data of the cloud or upload the data to the cloud from anywhere just with the help of a device and an internet connection. These capabilities are available all over the network and accessed with the help of internet.

9. Availability: The capabilities of the Cloud can be modified as per the use and can be extended a lot. It analyzes the storage usage and allows the user to buy extra Cloud storage if needed for a very small amount.

10. Automatic System: Cloud computing automatically analyzes the data needed and supports a metering capability at some level of services. We can monitor, control, and report the usage. It will provide transparency for the host as well as the customer.

11. Pay as you go: In cloud computing, the user has to pay only for the service or the space they have utilized. There is no hidden or extra charge which is to be paid. The service is economical and most of the time some space is allotted for free.

12. Measured Service: Cloud Computing resources used to monitor the company uses it for recording. This resource utilization is analyzed by supporting charge-per-use capabilities. This means that the resource usages which can be either virtual server instances that are running in the cloud are getting monitored measured and reported by the service provider. The model pay as you go is variable based on actual consumption of the manufacturing organization.

III. SERVICE MODELS

The service models are categorized into three basic models:

- i. Software-as-a-Service (SaaS)
- ii. Platform-as-a-Service (PaaS)
- iii. Infrastructure-as-a-Service (IaaS)

i. Software as a Service (SaaS): Consumers buy the ability to access and use an application or service hosted in the cloud [5]. Microsoft is increasing its involvement in this area. As a part of the cloud computing option for Microsoft Office 2010, Microsoft's Office Web Apps are accessible to Office volume licensing customers and Office Web App subscribers through its cloud-based online services.

ii. Platform as a Service (PaaS): Consumers purchase access to platforms to deploy their own software and applications into the cloud. Consumers do not manage the operating systems and network access, and constraints may be placed on which applications can be deployed.

iii. Infrastructure as a Service (IaaS): Consumers control and manage system processes, applications, storage, and network connectivity and do not merely maintain the cloud infrastructure. In addition, the various subsets of these cloud models in an industry or market are recognized.

IV. Cloud deployment models

Define Cloud computing has requirement issues; the four deployment models that can be adopted to address these issues are as follows:

1. Private Cloud: is deployed, observed, and engaged for a particular distance area. However, it will be overseas through internet connection. But from private branch-branch.

2. Public Cloud: infrastructure is available to the public users, for example, Google-Drive service. In fact, public cloud enables a consumer to develop and deploy a service in the cloud with very little financial outlay compared with the capital usually required with other cloud computing services.

3. Hybrid Cloud: Any cloud infrastructures have numerous clouds in different area. Only the clouds allow information, or partial information that allowed shifting between clouds. Private and public clouds can be compounded to support the requirements of retaining organizational data and offer services in the cloud.

4. Community Cloud: This cloud is used for large infrastructure, such as government organizations that connect to one cloud to upload data with unified information or a campus server that connects one cloud computing community.

IV. CLOUD COMPUTING AND CRYPTOGRAPHIC

Cryptography involves the conversion of clear text into an unreadable form. Cryptography is a technique frequently used to transfer contents safely by ensuring that only the intended recipient can read them. This domain spotlight provides an overview of the history of cryptography and the many complex, imaginative approaches used in contemporary enterprise encryption.

Encryption: Assume E_1 and E_2 are two entities in the cloud computing. The identity of entity E_2 is $ID_{E_2} = DN_0 \parallel DN_1 \parallel DN_2$. To encrypt message m with ID_{E_2} , E_1 acts as follows:

1. Compute

$$P_1 = H_1(DN_0 \parallel DN_1) \quad (1)$$

$$P_2 = H_1(DN_0 \parallel DN_1 \parallel DN_2) \quad (2)$$

2. Choose a random $r \in \mathbb{Z}_q^*$;

3. Output the ciphertext

$$C = \langle rP, rP_1, rP_2, H_2(g^r) \oplus m \rangle \quad (3)$$

where $g = \hat{e}(Q_0, P_0)$ which can be pre-computed.

V. REVIEW OF STUDIES ON CRYPTOGRAPHY FOR CLOUD COMPUTING

Bleikertz et al. [10] proposed the secret key principles, which are applied to virtual machines on the basis of unique client-controlled CaaS architecture for cloud computing. However, these researchers emphasized the use of physical hardware security modules, and found that architecture segregates the management and storage of the keys of cloud clients as well as all cryptographic operations into a secure crypto-domain called DomC, which is tightly coupled to the workloads of clients.

While, Sanyal and Iyer [11] investigated cloud security based on public key values. They discussed a secure, and efficient algorithm based on the multi-key encryption AES technique, a 128/192/256 bit cipher key used to encrypt and decrypt data. Results confirmed, that AES increases security for the cloud computing compared with RSA. But, AES can be used in virtual machines and in public or private clouds.

Mao [12] noted an important problem for secure network virtualization: the negligent usage of intelligence and distributed power by hypervisors. The research discussed how hypervisors use information boxes to gain control. Therefore, he proposed network virtualization using modern technology with several useful applications, including secure multi-tenancy for cloud computing. Cryptography significantly affects the management of the intelligence and distributed power of hypervisors.

Rauber [13] studied cloud computing security, which the entire system requires or else it collapses. Rauber in fact, argued that the main components of a cloud should be secure and discussed whether cloud computing will revolutionize the computing experience. The researcher also examined the functions of SaaS, homomorphic encryption, and functional encryption and their strategies for keeping information secure. These topics were discussed in depth together with useful results.

Zaheng [14] focused on the unique challenge posed by security by building an enhanced security- mobile cloud. Zaheng defined encryption data through public key cryptography such that a sender can retrieve data from a cipher text stored in the cloud without relying on the recipient of the cipher text. Privacy is a significant issue in cloud computing. While, on Facebook, content may be shared on other social networks, such as Twitter and LinkedIn, through the Share. However, Zaheng observed that using mobile cloud computing servers when browsing social networks remains a significant security issue.

Kerchbaun [15] identified several stuck cloud security issues, such as infrequent queries, security versus performance query optimization, and access control, and developed a high-performance prototype suitable for practical adoption.

Ustimenko and Wroblewska [16] proposed a brilliant idea for homomorphic encryption and multivariate key cryptography and found that algebra is important for cryptography for cloud computing security.

Chakraborty et al. [17] proposed elliptic curve cryptography for a homomorphic encryption scheme. Initial implementation produced a high data self-control scheme. The application verified the retrievability scheme, where the client was able to challenge the integrity of the stored data. Notion is important for proposals in cryptography; thus, Chakraborty et al. have used the notions that the third party auditor is a highly secure method. However, the notion was used to verify and modify secure path data on behalf of the client. A Merkle hash tree was used for data server storage because the authors assumed that this tree securely accelerates data access. While, in PKI, several studies have complained about the cost of elliptic curve cryptography; such high cost can be remedied only by enhancing the ECC algorithm [18]. Jangar and Bala used RSA to construct a privacy-aware security algorithm in a cloud environment and found that the algorithm is efficient, secure, and private when used in a cloud environment.

Eyers and Russello [20] argued that the cloud computing trend will increasingly become challenging as the number of consumers rise. Cloud computing also has various threats to its model from self-hosted resources. In fact, cloud computing is trusted, and consumers are curious about it, even if such curiosity is unintended. F, it provides large prime keys to create secure sessions. However, this method will impair the performance of many cloud applications.

Dodis et al. [21] analyzed key-insulated symmetric key cryptography, which reduces the damage caused by looping attacks against integrated cryptographic software. They emphasized the feasibility of symmetric key cryptography in key-insulated cryptography and produced a proof-of-concept kernel-based virtual machine environment.

Sudha [22] studied cloud security for data integrity, confidentiality, and authentication through a model that uses hyper crypto-encryption for asymmetric and symmetric cryptographic algorithms as a part of a security model for data security in cloud computing.

Gampala et al. [23] explored data security in cloud computing by implementing encrypted digital signatures with elliptic curve cryptography.

Goswami and Singh [24] developed an NP-complete class by solving equations over a ring of integers. The developed algorithm increases public encryption agreements and can be used in the server of a cloud computing service.

Van Dijk and Juels [25] noted that cryptography is not enough to increase cloud privacy, even though powerful tools, such as FHE. The results of this study were notable for its opposition to privacy leaking in cryptography.

Rocha and Correria [26] discussed the effects of a hypothetical malicious cloud on the confidential data of cloud users. This research topic is interesting because many clients that connect to clouds may upload several malware or viruses. Several clients even upload zombies for Botnet purposes. Thus, Rocha and Correria suggested the implementation of high privacy for each user through cryptographic operations.

Li et al. [27] used effective fuzzy keyword search for highly encrypted data in clouds to achieve high privacy. This concept based on fuzzy keyword search significantly enhanced system usability by matching files with the search inputs of users by searching inputs that exactly match the predefined keywords or, when an exact match is not found, the closest possible matching files based on keyword similarity semantics. The main principle behind the algorithm is that the measure to quantify keyword similarity is modified and an advanced technique for constructing the fuzzy keyword set system is developed to significantly reduce storage and representation overheads.

Agudo et al. [28] identified several cryptograph fields that can attract cloud computing providers. To produce a highly secure storage in cloud computing, the particular cryptographic solution must capture the attention of many cloud providers and produce a high value monitoring level to reach satisfactory protection for consumer data.

Zhao et al. [29] studied the construction of a system for trusted data sharing through untrusted cloud providers to address the security issue. The constructed system can impose the access control policies of data owners and prevent cloud storage providers from unauthorized access and illegal authorization to access data.

Atyero and Feyisetan [30] studied the secure delivery of data sessions to and from the cloud and noted serious issues on such delivery. This study presented a new and effective security solution for issues that affect cloud

computing. Atyero and Feyisetan proposed the use of homomorphic encryption to address serious security concerns in terms of access to cloud data.

Jaatun et al. [31] developed a confidentiality algorithm for cloud computing. An important finding of their research was the redundant array of independent net-storages (RAIN) for cloud computing. The RAIN approach divides data into segments and distributes them. Keeping the relation between the distributed segments private prevents the reassembly of the original data. Each segment is too small to disclose any meaningful information. RAIN ensures the confidentiality of data stored in the cloud.

VI. DISCUSSION

Cloud computing has presented issues regarding data control, the effect of software systems on organic resources, and the transfer of data access control to another. Based on the above literature review, we conclude that cryptography can be used for the following:

- Proofs of irretrievability.
- Homomorphic encryption.
- Private information retrieval.
- Broadcast encryption.
- Knowledge and zero-knowledge proofs.
- Short signatures.

Thus, Fig. 5 Shown the ideas of cryptography usage through the three main security concept Confidentiality, Integrity and Availability (CIA).

Confidentiality	Symmetric Encryption	Homomorphic Encryption	SSL
Integrity	MAC	Homomorphic Encryption	SSL
Availability	Redundancy	Redundancy	Redundancy
	Storage	Processing	Transmission

Fig5.CIA over cloud

As a result, the benefits from cloud have spread widely through the backbone. But, the sandwich of cloud computing can't be complete without security Algorithms, encryption, and security policy. In addition when there are many securities implementation through multi-cloud there will be another obstacle which is performance. And how can manipulate thesis cryptography encryption things using large keys in less cost, but the clue not finishing yet. However, Availability is important after security and performance. Due to the fact in Fig.6, it conclude that security take the vast majority in comparing with other cloud factor that based on concept , and end point that represent by user, for example, sitting at home ,and upload data from client computer to the cloud point. There for, noting complete, and perfect in cloud computing security. But, many valuable researches, and real time produced high, and efficient solution for cloud computing world.



VII. CONCLUSION

Although there has been some increase in security cloud computing world, no straight solution under applied cryptographic implementation. A shared of ownership between crypto algorithm and security policy might be collaborative approach for cloud computing. Therefore, our believe this improvement alone is not enough. From our surveyed paper, a conclusion led us to suggest, however third- party box work as gateway between client, and cloud which work as crypto box, or develop program work as encryption and decryption mechanism that maybe built-in between client's and cloud server as cryptography secure session's agreement

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BIG DATA ANALYTICS**Kirandevi Rajendra Pal**

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ABSTRACT:

In the information era, massive amounts of data have become available on hand to decision makers. Big data refers to datasets that are not only big, but also high in variety and speed, which makes them difficult to handle using traditional tools and techniques. Due to the speedy growth of such data, solutions require to be studied and provided in arrange to handle and extract value and knowledge from these datasets. Additionally, decision makers necessitate being able to gain important insight from such varied and fast changing data, ranging from daily transactions to customer interactions and social network data. Value can be provided using big data analytics, which is the application of complex analytics techniques on big data. These paper goals to examine some of the dissimilar analytics methods and tools which can be applied to big data, as well as the opportunities given by the application of big data analytics in various judgment domains.

Keywords: big data, data mining, analytics, decision making.

I. INTRODUCTION

Visualize a world exclusive of data storage; a place where every feature about a person or organization, every transaction performed, or every phase which can be documented is misplaced directly after use. Organizations would thus lose the ability to extract important information and knowledge, perform comprehensive analyses, as well as give new opportunities. Anything ranging from customer names and addresses, to goods available, to buys made, to workers hired, etc. has become necessary for day-to-day permanence. Data is the construction block upon which any organization thrives.

Big Data Analytics

The term "Big Data" has in recent times been applied to datasets that raise so large that they become awkward to work with using traditional database management systems. They are data sets whose size is further than the facility of commonly used software tools and storage systems to collect, store, manage, as well as process the data within a bearable beyond time .

Big data sizes are continuously rising, at this time ranging from a few dozen tera- bytes to many petabytes of data in a single data set. Big data analytics is the frequently difficulties process of investigative big data to expose information -- such as out of sight patterns, correlations, market trends and customer preferences -- that can help organizations make conversant business decisions.

Characteristics of Big Data

Big data is data whose size, allocation, variety, and/or timeliness necessitate the use of new technical architectures, analytics, and tools in order to allow insights that unlock new sources of business value. Three main features characterize big data: volume, variety, and velocity, or the three V's.

Big Data Analytics Tools and Methods

With the development of technology and the improved multitudes of data flowing in and out of organizations daily, there has become require for quicker and more well-organized ways of analyzing such data. Having piles of data on hand is no longer enough to make well-organized decisions at the right time. Accordingly, Big – Data, Analytics, and Decisions (B-DAD) framework which incorporates the big data analytics tools and methods into the assessment making process. The construction maps the dissimilar big data storage, management, and processing tools, analytics tools and methods, and visualization and assessment tools to the different phases of the decision making process.

Big Data Storage and Management

The traditional methods of well thought-out data storage include relational databases, data marts, and data warehouses. The data is uploaded to the storage from operational data stores using Extract, Transform, Load (ETL), or Extract, Load, Transform (ELT), tools which extract the data from outside sources, transform the data to fit operational requirements, and finally load the data into the database or data warehouse.

Big Data Analytic Processing

Later than the big data storage, comes the analytic processing. The second necessity is speedy query processing. In order to satisfy the necessities of weighty workloads and real-time needs, many queries are response-time dangerous. Thus, the data appointment structure must be capable of retaining high query processing speeds as

the amounts of queries quickly raise. Furthermore, the third necessity for big data processing is the highly efficient use of storage space. Since the speedy growth in user activities can insist scalable storage capability and computing power, limited disk space necessitates that data storage be well managed during processing, and issues on how to store the data so that space utilization is maximized be addressed

Big Data Analytics and Decision Making

From the decision maker's viewpoint, the consequence of big data lies in its capability to given information and knowledge of value, upon which to base judgements. The managerial decision making process has been an essential and thoroughly covered topic in research all through the years.

Big data is becoming an increasingly important asset for decision makers. Large volumes of highly detailed data from various sources such as scanners, mobile phones, loyalty cards, the web, and social media platforms provide the opportunity to deliver significant benefits to organizations. This is possible only if the data is properly analyzed to reveal valuable insights, allowing for decision makers to capitalize upon the resulting opportunities from the wealth of historic and real-time data generated through supply chains, production processes, customer behaviors, etc.

According to Manyika et al.'s research, big data can enable companies to create new products and services, enhance existing ones, as well as invent entirely new business models. Such benefits can be gained by applying big data analytics in different areas, such as customer intelligence, supply chain intelligence, performance, quality and risk management and fraud detection. Furthermore, Cebr's study highlighted the main industries that can benefit from big data analytics, such as the manufacturing, retail, central government, healthcare, telecom, and banking industries.

Customer Intelligence

Big data analytics holds much potential for customer intelligence, and can highly benefit industries such as retail, banking, and telecommunications. Big data can create transparency, and make relevant data more easily accessible to stakeholders in a timely manner. Big data analytics can provide organizations with the ability to profile and segment customers based on different socioeconomic characteristics, as well as increase levels of customer satisfaction and retention. This can allow them to make more informed marketing decisions, and market to different segments based on their preferences along with the recognition of sales and marketing opportunities. Moreover, social media can be used to inform companies what their customers like, as well as what they don't like. By performing sentiment analysis on this data, firms can be alerted beforehand when customers are turning against them or shifting to different products, and accordingly take action.

Additionally, using SNAs to monitor customer sentiments towards brands, and identify influential individuals, can help organizations react to trends and perform direct marketing. Big data analytics can also enable the construction of predictive models for customer behavior and purchase patterns, therefore raising overall profitability. Even organizations which have used segmentation for many years are beginning to deploy more sophisticated big data techniques, such as real-time micro-segmentation of customers, in order to target promotions and advertising. Consequently, big data analytics can benefit organizations by enabling better targeted social influencer marketing, defining and predicting trends from market sentiments, as well as analyzing and understanding churn and other customer behaviours.

2.2 Supply Chain and Performance Management

As for supply chain management, big data analytics can be used to forecast demand changes, and accordingly match their supply. This can increasingly benefit the manufacturing, retail, as well as transport and logistics industries. By analyzing stock utilization and geospatial data on deliveries, organizations can automate replenishment decisions, which will reduce lead times and minimize costs and delays, as well as process interruptions. Additionally, decisions on changing suppliers, based on quality or price competitiveness, can be taken by analyzing supplier data to monitor performance. Furthermore, alternate pricing scenarios can be run instantly, which can enable a reduction in inventories and an increase in profit margins [4]. Accordingly, big data can lead to the identification of the root causes of cost, and provide for better planning and forecasting.

Another area where big data analytics can be of value is performance management, where the governmental and healthcare industries can easily benefit. With the increasing need to improve productivity, staff performance information can be monitored and forecasted by using predictive analytics tools. This can allow departments to link their strategic objectives with the service or user outcomes, thus leading to increased efficiencies. Additionally, with the availability of big data and performance information, as well as its accessibility to operations managers, the use of predictive KPIs, balanced scorecards, and dashboards within the organization

can introduce operational benefits by enabling the monitoring of performance, as well as improving transparency, objectives setting, and planning and management functions [4].

2.3 Quality Management and Improvement

Especially for the manufacturing, energy and utilities, and telecommunications industries, big data can be used for quality management, in order to increase profitability and reduce costs by improving the quality of goods and services provided. For example, in the manufacturing process, predictive analytics on big data can be used to minimize the performance variability, as well as prevent quality issues by providing early warning alerts. This can reduce scrap rates, and decrease the time to market, since identifying any disruptions to the production process before they occur can save significant expenditures [4]. Additionally, big data analytics can result in manufacturing lead improvements [17]. Furthermore, real-time data analyses and monitoring of machine logs can enable managers to make swifter decisions for quality management. Also, big data analytics can allow for the real-time monitoring of network demand, in addition to the forecasting of bandwidth in response to customer behavior.

Moreover, healthcare IT systems can improve the efficiency and quality of care, by communicating and integrating patient data across different departments and institutions, while retaining privacy controls [4]. Analyzing electronic health records can improve the continuity of care for individuals, as well as creating a massive dataset through which treatments and outcomes can be predicted and compared. Therefore, with the increasing use of electronic health records, along with the advancements in analytics tools, there arises an opportunity to mine the available de-identified patient information for assessing the quality of healthcare, as well as managing diseases and health services [22].

Additionally, the quality of citizens' lives can be improved through the utilization of big data. For healthcare, sensors can be used in hospitals and homes to provide the continuous monitoring of patients, and perform real-time analyses on the patient data streaming in. This can be used to alert individuals and their health care providers if any health anomalies are detected in the analysis, requiring the patient to seek medical help [22]. Patients can also be monitored remotely to analyze their adherence to their prescriptions, and improve drug and treatment options [14].

Moreover, by analyzing information from distributed sensors on handheld devices, roads, and vehicles, which provide real-time traffic information, transportation can be transformed and improved. Traffic jams can be predicted and prevented, and drivers can operate more safely and with less disruption to the traffic flow. Such a new type of traffic ecosystem, with "intelligent" connected cars, can potentially renovate transportation and how roadways are used [22]. Accordingly, big data applications can provide smart routing, according to real-time traffic information based on personal location data. Furthermore, such applications can automatically call for help when trouble is detected by the sensors, and inform users about accidents, scheduled roadwork, and congested areas in real-time [14].

2.4 Risk Management and Fraud Detection

Industries such as investment or retail banking, as well as insurance, can benefit from big data analytics in the area of risk management. Since the evaluation and bearing of risk is a critical aspect for the financial services sector, big data analytics can help in selecting investments by analyzing the likelihood of gains against the likelihood of losses. Additionally, internal and external big data can be analyzed for the full and dynamic appraisal of risk exposures [4]. Accordingly, big data can benefit organizations by enabling the quantification of risks [17]. High-performance analytics can also be used to integrate the risk profiles managed in isolation across separate departments, into enterprise wide risk profiles. This can aid in risk mitigation, since a comprehensive view of the different risk types and their interrelations is provided to decision makers [4].

Furthermore, new big data tools and technologies can provide for managing the exponential growth in network produced data, as well reduce database performance problems by increasing the ability to scale and capture the required data. Along with the enhancement in cyber analytics and data intensive computing solutions, organizations can incorporate multiple streams of data and automated analyses to protect themselves against cyber and network attacks [22].

As for fraud detection, especially in the government, banking, and insurance industries, big data analytics can be used to detect and prevent fraud [17]. Analytics are already commonly used in automated fraud detection, but organizations and sectors are looking towards harnessing the potentials of big data in order to improve their systems. Big data can allow them to match electronic data across several sources, between both public and private sectors, and perform faster analytics [4].

In addition, customer intelligence can be used to model normal customer behavior, and detect suspicious or divergent activities through the accurate flagging of outlier occurrences. Furthermore, providing systems with big data about prevailing fraud patterns can allow these systems to learn the new types of frauds and act accordingly, as the fraudsters adapt to the old systems designed to detect them. Also, SNAs can be used to identify the networks of collaborating fraudsters, as well as discover evidence of fraudulent insurance or benefits claims, which will lead to less fraudulent activity going undiscovered [4]. Thus, big data tools, techniques, and governance processes can increase the prevention and recovery of fraudulent transactions by dramatically increasing the speed of identification and detection of compliance patterns within all available data sets [22].

CONCLUSION

In this research, we have examined the innovative topic of big data, which has recently gained lots of interest due to its perceived unprecedented opportunities and benefits. In the information era we are currently living in, voluminous varieties of high velocity data are being produced daily, and within them lay intrinsic details and patterns of hidden knowledge which should be extracted and utilized. Hence, big data analytics can be applied to leverage business change and enhance decision making, by applying advanced analytic techniques on big data, and revealing hidden insights and valuable knowledge.

Accordingly, the literature was reviewed in order to provide an analysis of the big data analytics concepts which are being researched, as well as their importance to decision making. Consequently, big data was discussed, as well as its characteristics and importance. Moreover, some of the big data analytics tools and methods in particular were examined. Thus, big data storage and management, as well as big data analytics processing were detailed. In addition, some of the different advanced data analytics techniques were further discussed.

By applying such analytics to big data, valuable information can be extracted and exploited to enhance decision making and support informed decisions. Consequently, some of the different areas where big data analytics can support and aid in decision making were examined. It was found that big data analytics can provide vast horizons of opportunities in various applications and areas, such as customer intelligence, fraud detection, and supply chain management. Additionally, its benefits can serve different sectors and industries, such as healthcare, retail, telecom, manufacturing, etc.

Accordingly, this research has provided the people and the organizations with examples of the various big data tools, methods, and technologies which can be applied. This gives users an idea of the necessary technologies required, as well as developers an idea of what they can do to provide more enhanced solutions for big data analytics in support of decision making. Thus, the support of big data analytics to decision making was depicted.

Finally, any new technology, if applied correctly can bring with it several potential benefits and innovations, let alone big data, which is a remarkable field with a bright future, if approached correctly. However, big data is very difficult to deal with. It requires proper storage, management, integration, federation, cleansing, processing, analyzing, etc. With all the problems faced with traditional data management, big data exponentially increases these difficulties due to additional volumes, velocities, and varieties of data and sources which have to be dealt with. Therefore, future research can focus on providing a roadmap or framework for big data management which can encompass the previously stated difficulties.

We believe that big data analytics is of great significance in this era of data overflow, and can provide unforeseen insights and benefits to decision makers in various areas. If properly exploited and applied, big data analytics has the potential to provide a basis for advancements, on the scientific, technological, and humanitarian levels.

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COVID-19 PANDEMIC AND ITS IMPACT ON EDUCATION IN INDIA**Prof. Shailaja Dadasaheb Bhosle**

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ABSTRACT

The sudden outbreak of deadly pandemic Covid-19 has created great threat to human being and drastically disrupted every aspect of human life including education. Most of educational institutions in India are using traditional methods of learning, that is, face-to-face lectures in a classroom. In India, about 32 crore learners stopped to move schools/colleges and all educational activities brought to an end. Despite of all these challenges, Education sector have responded positively and managed to ensure the continuity of teaching-learning, research and service to the society. Due to Covid-19 pandemic, many innovative modes of learning, new perspectives, new trends are emerged and the same may continue as we go ahead. The Article includes the importance of online learning and Strengths, Weaknesses, Opportunities & Challenges (SWOT) analysis of learning modes. This research paper to be discussed impact of Covid-19 on Education System in India.

Keywords: Education in India, Online Modes, Covid-19, WHO, Pandemic, UGC

INTRODUCTION

In India, the first affected case of Covid-19 was detected on 30 January 2020 in the state of Kerala and the affected had a travel history from Wuhan, China. On March 11, 2020 World Health Organization (WHO) declared Covid-19 as a pandemic. In India, the first death was reported on March 12, 2020 and the nation observed Janta Curfew for a day on March 22, 2020. India again observed 14 hours Janta Curfew on March 24 to combat the Coronavirus pandemic and assess the country's ability to fight the virus. Then, the 1st phase of lockdown was announced by the Honorable Prime Minister Narendra Modi on March 25, 2020 for 21 days. Monitoring the effects of the virus, Indian Government has been extending the lockdown period in different phases and the lockdown 5.0 was declared on April 30 which is effective from 1st June to 30th June 2020. In all the phases of lockdown, the educational institutions throughout the nation have never got any relaxation. According to the UNESCO report, Covid-19 has affected nearly 68% of total world's student population as per the data taken during 1st week of June 2020. Thus, pandemic Covid-19 impacted significantly on the education sector.

In India, more than 32 crores of students have been affected by the various restrictions and the nationwide lockdown for Covid-19. Most Governments around the world have temporarily closed educational institutions in an attempt to control the spread of the pandemic Covid-19. This worldwide closure has impacted drastically the world's student population. Government of India make special efforts to diminish the immediate impact of closure of educational institutions and trying to facilitate the continuity of education for all using different digital modes of learning. According to a survey report of the Ministry of Human Resource Development (MHRD), Government of India, conducted on higher education it was observed that there are 993 universities, 39931 Colleges and 10725 stand- alone institutions listed on their portal, which contribute to education. The people residing in remote rural areas are still very much deprived of the technologies and thus hampering the cause of online education.

Normally, this is the time young students write entrance exams, consider which colleges to apply to in India, or make plans for studies abroad. The Covid-19 pandemic has shocked the entire world. The pressure on students and education institutions is high. Schools and universities have been closed and exams postponed. Classrooms are going virtual and admissions for the upcoming academic year are fraught with confusion. According to UNESCO, over 320 million students in Indian schools and colleges are currently impacted. After the initial phase of complete overhaul, it is critical to understand the short and long-term impact and future measures.

METHODOLOGY

In this research paper the data for the present study is collected mainly through secondary sources for current study. As it is not possible to go outside for data collection due to lockdown, information is collected from different authentic websites, journals and e-contents relating to impact of Covid-19 on educational system of India.

RESEARCH QUESTIONS:

1) What is the History of Covid-19?

- 2) How Indian education system fight with covid-19?
- 3) What is importance of Internet and Digital education during covid pandemic?
- 4) How to evaluate the impact of Covid-19 on Education system in India?

Impact on Education system

Pandemic Covid-19 has severely affected the total educational system of India as well as the globe but some of the most impacted areas of higher education of India are as pointed below.

Positive Impact of Covid-19 on education

Change is inevitable part of life. The opportunities created by the pandemic Covid-19 will lead towards a better tomorrow. New technologies will certainly challenge the traditional paradigms such as classroom lectures, modes of learning and modes of assessment.

- **Better time management:** Students are able to manage their time more efficiently in online education during pandemics.
- **Rise in online meetings:** Covid-19 pandemic has created a massive rise in teleconferencing, virtual meetings, e-conferencing and webinars opportunities.
- **Worldwide exposure:** Learners and educators are getting opportunities to interact with peers from around the world to benefit from each other (Misra,2020).
- **Enhanced Digital Literacy:** More and more students will depend on technology and digital solutions for teaching learning, entertainment and connecting themselves with the outside world. Students will use internet technology to communicate virtually with their teachers and fellow learners through E-mail, WhatsApp, webinar, Videoconference, Instant message or any other tool. Artificial Intelligence (AI) may help teachers to deal with assessment, evaluation, preparing mark- sheets and monitoring the performance of each student easily.
- **Encourage personalized learning:** Learning may not be confined to classes or to any specific boundaries. Students may be the virtual learners with one teacher leading dozens of students in the new age. The learning modules may be modified to suit different learning styles and the learning contents may come from different sources to meet the learners' aspirations and needs.
- **Learning with social distancing:** It is mandatory to wear mask in public place. All will maintain social distancing and avoid warm handshake, hug, personal greeting, and intimacy for a long time. The need for social distancing may imply lesser students in each class. So, most of the educational institutions may work in different shifts per day which may put more pressure on the teaching and administrative staff of the institution to manage.
- **Demand for Open and Distance Learning (ODL):** During pandemic situation of Covid-19 has forced the students preferred ODL mode as it encourages self-learning providing opportunities to learn from diverse resources. The traditional face to face mode with post Covid-19 technology mode will lead the education towards blended mode of teaching learning and it may transform the structure of the education system.
- **Move towards Blending Learning:** Covid-19 has accelerated adoption of digital technologies to deliver education. Educational institutions moved towards blended mode of learning.

Negative Impact of Covid-19 on education

- **Disturbance in all educational activities:** Outbreak of Covid-19 has compelled lockdown in every sector including education. The institutions got closed with cease of educational activities and created many challenges for the stake holders (Pravat, 2020a). So, the various activities like admission, examinations, entrance tests, competitive examinations conducted by various boards/schools/colleges/universities are postponed. Many entrance tests for higher study got cancelled which created a great challenge in the life of a student of higher education. The primary challenge was to continue teaching learning process when students, faculties and staff could no longer be physically present on the campuses.
- **No preparation for online education:** Not all teachers and students are good in IT. Most of them were not ready for this sudden change from physical face to face learning to online learning.

- **Access to digital world:** As many students have limited or no internet access and many students may not be able to afford computer, laptop or supporting mobile phones in their homes, digital world divided students between rich v/s poor and urban v/s rural. The lockdown has hit the poor students very hard in India as most of students are unable to access online learning.
- **Increased responsibility of parents:** Few educated parents are able to guide their wards but many parents may not have adequate level of education needed to teach children in the home.
- **Impact on Academic research & Professional:** Covid-19 has both negative and positive impacts on research. If we take the negative side, it has made impossible for researchers to travel and work together. Some joint research work or project work are made complicated to complete. Some scientific laboratory testing work could not be conducted. If we look at the positive side, academicians got much time to improve their theoretical research work. Academicians got acquainted with technological methods and improved their research. Webinars and e- conferences became normal methods for sharing expertise among students and academicians around the globe with similar issues. They enhanced their technical skill and could get the scope for publishing articles in journals and publishing books.
- **Access to global education:** Covid-19 pandemic has significantly affected higher education sector. A number of Indian students who enrolled in many universities abroad in worst covid-19 affected countries are now leaving those countries. There will be a significant decline in the demand for international higher education if the situation persists during long period of time.
- **Payment of Schools and Colleges fees:** During lockdown most of the parents will be facing critical unemployment situation so they may not be able to pay the fee of their wards as per schedule given by educational institutions.
- **Severely affected the educational assessment system:** Most of the external examinations have been postponed and almost all the internal assessments have been cancelled. The cancellation of assessments has negative impact on students' learning. Many institutions have been managing the internal assessments through online mode using different digital tools but the postponement of the external assessments, has a direct impact on the educational and occupational future of students' life.
- **Loss of nutrition due to school closure:** Mid-day meals is a school meal programme of the Government of India. This is designed to provide good nutritional food to school age children nationwide. The closure of school has serious implications on the daily nutrition of the students as mid-day meal scheme have temporarily been shut.
- **Reduced employment opportunities:** Many entrance tests job recruitments got cancelled which created negative impact with a great challenge in the life of a student. In India, there is no recruitment in Govt. sector and fresh graduates are in pressure of fearing withdrawal of job offers from corporate sectors because of the pandemic situation. Many students may lose their jobs from India and overseas. All these facts imply towards increase of unemployment rate due to covid-19 pandemic.

Emerging New trends

The MHRD and University Grants Commission (UGC) have made several arrangements by launching many virtual platforms with online depositories, e-books and other online teaching/learning materials, educational channels through Direct to Home TV, Radios for students to continue their learning. During lockdown, students are using popular social media tools like WhatsApp, Zoom, Google meet, Telegram, YouTube live, Facebook live etc. for online teaching learning system.

UGC has also prepared complete calendar for the academic session 2020- 2021 with new dates keeping in view of the lockdown. Some of the digital initiatives of UGC & MHRD for education during COVID-19 are pointed as below:

- **e-GyanKosh** is a National Digital Repository to store and share the digital learning resources which is developed by the Open and Distance Learning Institutions of India. Items in e-GyanKosh are protected by copyright, with all rights reserved by Indira Gandhi National Open University (IGNOU).
- **Diksha Portal** contains e-Learning content for students, teachers and parents aligned to the curriculum, including video lessons, worksheets, textbooks and assessments. The app is available to use offline. It has more than 80,000 e-books for classes 1 to 12 created by CBSE, NCERT in multiple languages.

- **Gyandarshan** is a web-based TV channel devoted to educational and developmental needs for Open and Distance Learner. A web-based TV channel devoted to educational and developmental needs of the society.
- **E-Pathshala** is an e-Learning app by NCERT for classes 1 to 12 in multiple languages. The app house books, videos, audit etc. aimed at students, educators and parents in multiple languages including Hindi, Urdu and English. Mobile Apps is available.
- **Gyandhara** Is an internet audio counseling service offered by IGNOU. It is a web radio where students can listen to the live discussions by the teachers and experts on the topic of the day and interact with them through telephone, and through chat mode.
- **Swayam** provides Massive Open Online Courses (MOOCs) with 140 universities approved credit transfer feature. It is the national online education platform hosting 1900 courses covering both school (classes 9 to 12) and higher education (undergraduate, post graduate programs) in all subjects including law and management, engineering, humanities and social sciences courses.
- **Swayam Prabha** provides high quality educational programs through 32 DTH channels transmitting educational contents. These channels are available for viewing all across the country using DD Free Dish Set Top Box and Antenna.
- **e-PG Pathshala** (<https://epgp.inflibnet.ac.in/>) is for postgraduate students. Postgraduate students can access this platform for e-books, online courses and study materials.
- **National Digital Library of India (NDLI)** is a repository of e-content on multiple disciplines for all kinds of users like students (of all levels), teachers, researchers, librarians, library users, professionals, differently-abled users and all other lifelong learners. It is being developed at Indian Institute of Technology Kharagpur. It is designed to help students to prepare for entrance and competitive examinations, to enable people to learn and prepare from best practices from all over the world and to facilitate researchers to perform inter-linked exploration from multiple sources. It is a virtual repository of learning resources with a single-window search facility. It is also available to access through mobile apps.
- **e-Yantra** provides hands on experience on embedded systems. It has about 380 Lab and made 2300+ colleges benefited.
- **FOSSEE** is short form for Free/Libre and Open-Source Software for Education, which is developed to promote open-sourcesoftware for education as well as professional use.
- **Virtual Labs** has developed web-enabled curriculum-based experiments designed for remote operation. It has over 100 Virtual Labs consisting of approximately 700+ web-enabled experiments which are designed for remote-operation. It provides remote- access to Labs in various disciplines of Science and Engineering. These Virtual Labs caters to students at the undergraduate level, post graduate level as well as to research scholars.
- **National Educational Alliance for Technology (NEAT)** is an initiative for skilling of learners in latest technologies through a Public-Private partnership model between the Government (through its implementing agency AICTE) and the Education Technology companies of India. It brings the best technological products in education pedagogy on a single platform for the convenience of learners.

SUGGESTIONS

1. Indian teachers and academic experts should take proper training of using various electronic devices.
2. Indian should accept the modern technology for better development of education system.
3. Government must give priority and do more invest in education infrastructure sector.
4. Policy should be adopted by Government / educational institutions to provide free internet and free digital gadgets to all learners in order to encourage online learning.
5. Indian traditional knowledge is well known for its scientific innovations, values and benefits to develop sustainable technologies and medicines and this knowledge system should be integrated with current education system.
6. Immediate measures are required to lessen the effects of the pandemic job offers, research projects and internship programs.

CONCLUSION

This study has outlined various impacts of Covid-19 on education system in India. The recent pandemic created an opportunity for change in pedagogical approaches and introduction of virtual education in all levels of education. UGC and MHRD have launched many virtual platforms with online depositories, e-books and other online teaching/learning materials. Combination of the traditional technologies (TV, radio, landline phones) with mobile/web technologies to a single platform with all depositories would enhance better accessibility and flexibility to education. All service providers need to be mobilized to provide proper access to the educational service platforms to the disadvantaged groups of learner population. Virtual education is the most preferred mode of education at this outbreak of Covid-19.

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WOMEN EMPOWERMENT AND ENTREPRENEURSHIP**Prof. Vasundhara Wadibhasme**

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ABSTRACT

The present paper is an attempt to analyse the relationship between efforts taken for women empowerment and role of entrepreneurship. The study of Indian society reveals that the women in India are disempowered by male dominated society and hence they enjoy lower status than that of men in spite of efforts undertaken by Indian Constitution and Government to bridge the gap in gender inequality. Household decisions, education, employment, control over cash all these factors are controlled only by male members in the family. Women are prone to domestic violence, sexual harassment due to fact that they are uneducated and hence lacks behind in financial status. There are some social, economic and cultural hurdles in the way of empowerment of women. If women became economically strong, all these hurdles will automatically wave off. The most positively women should turn towards the entrepreneurship to make themselves self-sufficient and financially strong. In spite of the potential and talent required for entrepreneurship, women are deprived of opportunities being an entrepreneur. This paper is an attempt to highlight the essential strategies for being a successful entrepreneur woman.

Keywords: Gender Inequality, Women Empowerment, women Entrepreneurs,

"Empowering women is a prerequisite for creating a good nation, when women are empowered, society with stability is assured. Empowerment of women is essential as their thoughts and their value systems lead to the development of a good family, good society and ultimately a good nation."

APJ Abdul Kalam**1. INTRODUCTION**

Women Entrepreneurs can be defined as women or a group of women who initiate, organize and operate a business enterprise. For successful entrepreneurship one needs confidence, creativity and innovativeness. Woman desiring economic independence through entrepreneurship individually and simultaneously creates employment opportunities for others.

Due to the growth in education, urbanization, awareness of democratic values change has been observed in the role of a woman. An entrepreneur is the vital factor of the development process and an integral part of the socioeconomically transformation process. For development of a society participation of both men and women is important. One of the approaches for the development of women (economically) can be considered as Entrepreneurship. If women are empowered to create and manage their own business, it is possible to create wealth, jobs, individual and collective well-being of the society. Although women in India have taken the entrepreneur as one of the means to empower themselves, they often face a set of challenges by the society.

2. OBJECTIVES

1. To suggest the ways to empowerment of women
2. To discuss the problems faced by women entrepreneurs.
3. To suggest the strategies for successful women entrepreneurship.

3. WOMEN ENTREPRENEURS: 1) Rural women entrepreneurs 2) Urban women entrepreneurs

3.1. Rural women entrepreneurs: Rural entrepreneurship is an entrepreneurship emerging in rural areas. i.e. rural industrialization. Industries coming under the purview of KVIC are treated as rural industries. Rural industrialization is important that it can help to stop migration of the people for job to the urban areas. It gives wider range of opportunities to the people living in rural areas without going far away from their hometown. Hence it will help to check the crowd coming to the cities for employment.

3.2 Concept of Rural Women Entrepreneurs: Women entrepreneurship has been playing an important role as the main source of economic growth during the last decade. Overall development of woman is necessary for the growth of society and nation. The emergence of Rural and Urban entrepreneurs and their contribution to the national economy is quite visible in India. There is more population of women workers in rural areas whereas women entrepreneurship is largely neglected. Not only the women have less participation in entrepreneurship but also they start to choose the business which is different from men tend to do. If one looks at the beneficial side of the society women entrepreneurship enhance the capabilities of

women workers by making them self-dependent and financially strong and it can result in upgrading the women status in society.

3.3 Types of Rural Women Entrepreneurs : 1) Individual Entrepreneurs 2) Group Entrepreneurs

3.4 Challenges faced Rural Women Entrepreneurs:

3.4.1 Social Barriers: The traditions and customs in Indian societies for woman stand as an obstacle for their growth and prosper.

3.4.2 Male Dominated Society: In rural areas are people have a set attitude that women are only for household work. Whatever the work a woman wants to do, she needs the permission of the head of the family. Accordingly male views the entrepreneurship is only for men and not for women. Hence it will be hurdle to the women growth and prosperity.

3.4.3 Lack of Education: Women entrepreneurs without formal Education can face numerous problems while running their business. This results in women entrepreneurs remains in dark about the development of new technologies, new methods of productions, marketing strategies, governmental supports, other capital resources etc.

3.4.4 Financial Problems: Capital should be sufficient to open or run any business. However a large number of Indian women do not have any property, any source that can provide them the finance, even they will encounter the problem while applying for loan due to the lack of collateral.

3.4.5 Legal Formalities: This is the most difficult task or any entrepreneurs whether male or female. To fulfill the legal formality for business license, electricity, water, place one has to go through the various legal processes. Secondly middlemen or corruption of government practices this procedure can delay. In such condition the women entrepreneurs find it difficult to set up any business and run it smoothly.

4. NEED FOR WOMEN ENTERPRENEURS

A brilliant statement of Pandit Jawarharlal Nehru, "When women mover forward, the family moves, the village moves, and the nation moves" explains need for women entrepreneurs.

4.1. Opportunities: In this technological era women are developing themselves, changing from job seekers to job creator. In many fields like designer, clothing, food processing, small business their contribution to the economy is remarkable.

4.2. Achievers: There is a misconception that women cannot manage or handle the business. Society forgets that women are the creator of this whole world and if they have confidence and knowledge they can achieve anything.

4.3. Transform the conventional pattern: Whatever the traditional patterns and structure set up by our ancestors can obstruct the growth of women and keep their creativity, knowledge, skills, potential inside the four walls of their home. Women need to come out of this traditional structure.

4.4. Shorten the gender gap: Women entrepreneurship motivates and inspire the other women; they not only provide job opportunities for women but also can be the role model for them.

4.5. Women empowerment: hence Women entrepreneurship helps in the women empowerment. It has been also observed that women owned enterprise developed safe and positive atmosphere for women in the company.

5. To be a Successful Women Entrepreneur

5.1. Leadership: Being a female enterprenuer means being a leader, a creator, looking straight ahead and not worrying about what people are saying about you.

5.2. Clear vision: successful enterprenuer have a crystal clear vision of what they want to achive. Sometime you may face setbacks, distractions or roadblocks try to keep yourself on the right track.

5.3. Apply your passion and interest: at an early stage look for the field where you could bring your expertise, an area where you are passionate and also identify the big market opportunities.

5.4. Take calculated risk: understand your company's financials, growth projections, path to profitably and stay on the top how much capital you will need.

5.5. Be confident in yourself: one you build the confidence the door of success will always open.

6. CONCLUSIONS:

Numbers of women entrepreneurs are growing day by day. They are strong, bold, confident, possessing potentials to become independent and beat the men in the business spears. It is brilliantly interesting that they are moving from the traditional business of handicrafts to big industries.

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PROBLEMS FACED BY STUDENTS ON ONLINE LEARNING DURING COVID-19 IN INDIA

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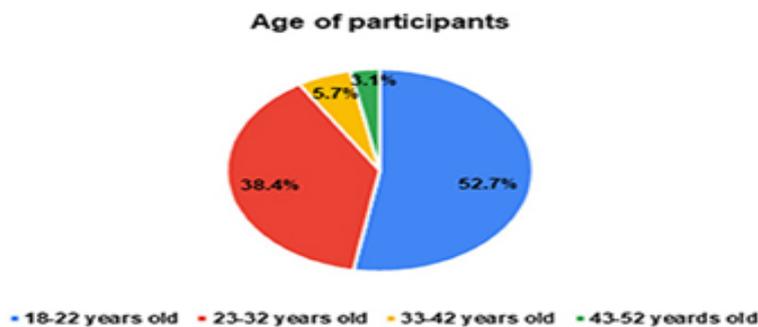
ABSTRACT

In India the covid-19 pandemic period change the Education System of all students. Through online system students take education from home. All students faced many problems during corona pandemic because all students and teachers have first time to attend in online system. Online Education means all works are from home with paperless and timeless accessible though mobile or computer.

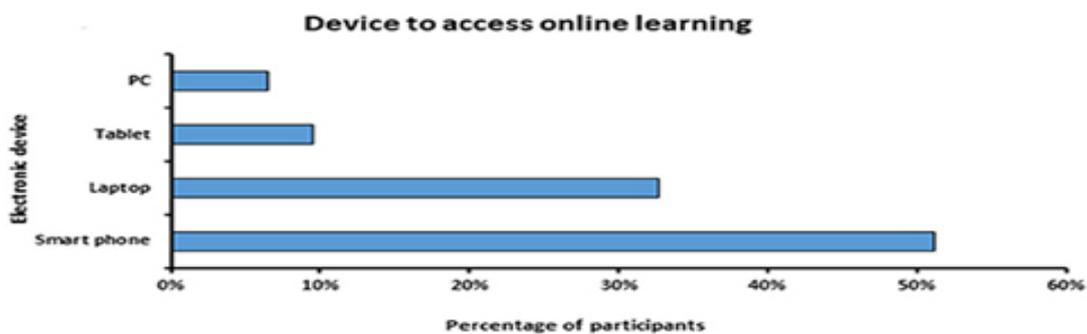
Keywords: Online study, Online education, online learning , covid-19, etc.

INTRODUCTION

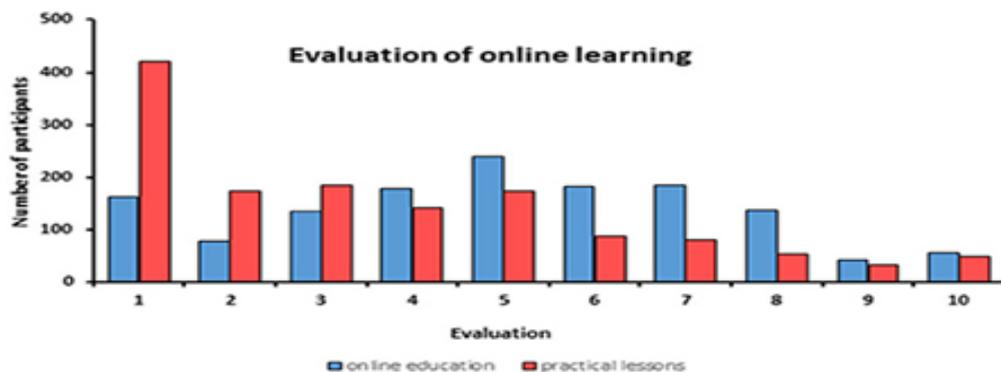
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The internet has progressed since its inception. In the previous 20 years, it was essentially non-existent. Years into the largest, most transparent government in the world Ever built knowledge database The Individuals have evolved in their behavior. Online The face of education is evolving. Conventional learning environments and the creation of Education is more accessible than it has ever been previously; there was something more than a Distance learning in the 21st century. Online the term “education” refers to a sort of learning that takes place in a classroom setting. Students utilize the internet to access information about their classes mobiles or computers in

the home. Online education means all works or activities of students through online system. In that situation many problems faced by the student because they are attending firstly in the whole life of education system. Now a day the online study is everywhere in the world during covid-19 pandemic period.

PROBLEMS FACED BY STUDENTS:-

In India, around across 250 million students were affected due to school and colleges closure at the one set of lockdown induced by Covid-19. The pandemic period several challenges in public and private school which include an except rise in dropouts, learning losses, and increase in digital divide.



Through online study system at home of all student have faced many problems in covid-19 as follow:

- 1) Voice and video problem during lectures thought bad Internet connection during lectures.
- 2) Internet loss during exams or lecture.
- 3) Mobile Battery lose problem during long time lectures.
- 4) Eyes paining due to online lecture or exam watching on mobile or computer screen.

**SOME ADVANTAGES & DISADVANTAGES:-****Advantages:-**

- All students takes lesser time to attend the online lecture without going school and colleges
- Through online education take all meeting and lecture anywhere in environments
- Online learning takes proper attendance of all students who attend the lecture.
- Online learning or lecture makes critical thinking skills.

**Disadvantages:-**

- Inability to Focus on Screens during online learning or lecture.
- Some Technical Issues running in online learning or classes.
- Sense of Isolation during online learning or lecture.
- Lack of trust between teacher and students during online lecture or learning.

CONCLUSION

Due to the Covid-19 outage, online teaching and learning became widely accepted all around the world. However, due to the abrupt adoption and constant adaption of online classes without face-to-face sessions, online programmes are losing their appeal and reverting to the same rate at which they were founded. Too much of anything is harmful, and this is also true for online education.

COVID-19 has an impact on all physical learning methods used in educational institutions around the world. To continue their studies, academic establishments' higher authorities utilised online learning. Although online learning appears to be advantageous in protecting students' and faculty's health in the face of the COVID-19 epidemic, some researchers believe it may not be as effective as expected. In underdeveloped nations like India, where a large majority of students are unable to access a good internet service due to technical and economical constraints, online learning cannot deliver good outcomes. This research looked into the usefulness of online classes as well as the problems that students confront when taking them. According to the report, 85.5 percent of students did not have access to the internet and suffered numerous internet problems. Students were dissatisfied with online learning in 70.5 percent of cases. By taking online lessons on Devices, 90% of students complain about eye sight problems. Students were unable to manage university matters in 45 percent of cases. All of the students were dealing with the same problems. They were either high school or university level. In online classrooms, both male and female students faced the same difficulties.

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WOMEN ENTREPRENEURSHIP AN INSTRUMENT OF WOMEN EMPOWERMENT - A CASE STUDY OF HOME BAKESTER**Dr. Sunita Sherifani**Associate Professor & HOD-Accountancy,
Vivekanand Education Society's College of Arts, Science and Commerce*"YOU CAN TELL CONDITION OF A NATION BY LOOKING AT ITS STATUS OF WOMEN"***- JAWAHARLAL NEHRU****ABSTRACT**

Development of any society equally depends upon the development of men and women. But in many societies it is observed that women have more often been kept out of the development process or their share is very minimum. Women Empowerment refers to increasing and enhancing the social, economic, political and legal power of women, ensuring equal rights for women, and empowering them to claim their rights, such as: live their lives freely with a sense of understanding, self-reliance and dignity, being able to manage their full lives, both inside and outside their homes, so that they can make their own choices and decisions, have equal rights to social, religious and community activities, and have equal status in society. socially, have equal rights to social and economic justice, equal choice of financial and economic rights, equal access to education, equal employment without discrimination, equal safe working environment Women have the right to express their views. The female population makes up about 50% of the world's population. The vast majority of women worldwide are unemployed. The global economy suffers greatly from the inequality of women in the workplace. Women are equally capable. Today, women are even more prominent than men in many social and economic activities. The advancement of Women leads to a reduction in domestic violence. Uneducated women are at greater risk of domestic violence than an educated woman.

Keywords: Women, Empowerment, Entrepreneur, development

INTRODUCTION

Empowerment is the most frequently used term in development dialogue in today's competitive world. Women's empowerment can be defined in many ways, including accepting women's ideas or making an effort to seek them out, elevating women's status through education, awareness, literacy, and training. Women's empowerment equips and allows women to make life-changing decisions on various social issues. They may have the opportunity to redefine gender roles or other similar roles, which may give them more freedom to pursue the goals they want.

Women's empowerment has become an important topic in development and economic development. Economic development allows women to control and benefit from services, goods, and income. It also contributes to the ability to manage risk and improve the well-being of women. It can lead to ways of supporting degraded sex in a particular political or social environment. Although commonly used interchangeably, the broader concept of gender empowerment affects people of any gender, emphasizing the difference between the biological role and gender as a role. The advancement of women helps to enhance the status of women through literacy, education, training and creating awareness. In addition, women's empowerment refers to women's ability to make informed health decisions that they have previously been denied.

REVIEW OF LITERATURE

Kumar, Mangesh and Darga (2000) examined the emergence of women entrepreneurs in Andhra Pradesh. The study concluded that entrepreneurship among women requires a congenial entrepreneurial climate which motivates and facilitates them to take up entrepreneurial career.

Singh K P (1992) Women entrepreneur is a confident, innovative and a creative woman capable of achieving economic independence individually or in collaboration generates employment opportunities for others through initiation, establishing and running an enterprises by keeping pace with her personal, family and social life.

RESEARCH METHODOLOGY

The research is based on the case study of woman entrepreneur of Ms. Binali Ganguly.

The information collected from Ms. Binali Ganguly through face to face interview.

Secondary data collected from books, journals, magazines and various websites.

OBJECTIVES OF STUDY

- To study the role of women in development process of society.
- To know and understand the hurdles on the way to success for being a successful women entrepreneur.

Top challenges faced by women entrepreneurs:

With the advent of conventions, Indian women have stepped out of their comfort zone and set themselves up for business. Business activity has given them financial independence and the opportunity to demonstrate their management skills. However, commercialism pushed them forward and gave them the confidence to lead the world by example. India currently has more than 8.05 million women entrepreneurs.

On paper, things may look promising, but the fact is, these numbers are only part of the story. Sadly, women-owned companies are still a minority and face many challenges compared to their male counterparts. Keep reading as we shed light on some of the top issues women entrepreneurs in India face and tips to combat them.

✓ Lack of finance

Finance is the lifeblood of any business, be it small or large. One of the biggest challenges women entrepreneurs face in India is the lack of funding. They are facing a financial crisis on two counts.

First of all, they usually do not have enough property their name. It means that they cannot use it as collateral for loans in banks and other financial institutions. This situation limits their access to external financial resources.

Second, lending institutions also feel that women are less likely to be in debt than men. They believe that women entrepreneurs can at any time close their business to make a commitment.

However, the government of India has come up to support and encourage women on financial grounds. Several schemes for women entrepreneurs are launched in this direction:

- Support to Training and Employment Programme for Women – STEP
- Stree Shakti Package
- Annapurna Scheme
- Udyogini Scheme
- Dena Shakti Scheme

✓ Lack of education

The literacy rate for women in India is estimated at 65.46% compared to 74% for men in literacy. Illiteracy has always been the cause of a few social and economic problems in India. In rural areas women are still deprived of higher education.

This situation limits their knowledge of business management functions. A well-educated woman has a high chance of managing a successful business empire. Women who are less qualified, on the other hand, tend to struggle to manage their normal business activities.

Here is a list of the top government schemes to promote women education in India:

- Beti Bachao Beti Padhao Yojana – To address declining CSR, propagating education, protection, and the survival of girls.
- Mahila E-Haat – A multilingual web-based platform to promote marketing skills in women.
- Mahila Shakti Kendra – To empower rural women by educating them about digital literacy, employment opportunities, skill development, health, and nutrition.

✓ Low risk taking ability

Although Indian parents came forward to provide a rich life for their daughters, they still prefer that women play safe. They encouraged their daughters to enter a stable job rather than pursue independence. This attitude has had a profound effect on women's ability to take risks. Here are some simple tips to overcome this challenge:

- Women should focus on building self-efficacy.
- They should understand all the pros and cons before making the final decision.
- They should also have confidence in their abilities to face any challenge that comes in their way.

- It is also crucial to be intelligent in taking risks and fighting negativity in society.

✓ **Family responsibilities**

What is more important to a woman — family or work? Most Indians would say, family. This is where most women lose out on the plot. A woman who is focused on work should always change her job and family.

He is not given the freedom to focus on his work as a man. It is one of the main reasons why women entrepreneurs get discouraged and choose to look for 9 to 5 jobs.

Are you dealing with this issue? If so, it is time to move on. Here are some of your tips:

Communicate with your family members and plan an easy way to find an occupational health balance. Contact your nearest childcare centre to care for your children, if you have them, until the duration of the administration. Specify priorities and learn time management skills to get the best results.

✓ **Poor development skills**

Communication is essential to strengthening business bonds, gaining knowledge, building confidence, and expanding business. However, it seems that women are keeping themselves out of their comfort zone.

Most of them are unable to communicate with customers and clients. This practice can serve as a major barrier to the success of their business. Here are some tips for contacting such women:

- Start attending network events.
- Identify the appropriate icebreakers.
- Improve your knowledge about the industry.
- Develop relationships.

✓ **Safety and security issues**

Lack of safety and security is one of the biggest challenges for women entrepreneurs in India. An entrepreneur needs many hours of hard work and dedication. Not only that; you may also need to travel a lot, and be present to customers and customers 24 * 7.

The ever-increasing rate of crime diminishes women's ability to pursue their passion for successful business owners. While the Indian government is taking every step to curb this issue, things will take time to become normal and secure.

Case Study – Binali Ganguly – The Home baker

Binali Ganguly, a resident of Dombivali, has studied Hospitality and Tourism in D.Y.Patil College of Hotel Management. In her second year of Degree she was doing an internship in 5 –Star Hotels in HR Department, meanwhile she had some of her colleagues in the baking department and she use to visit that department to meet her friends and developed an interest in baking. Then she started interacting with head chef of the baking department about the types of cakes and baking techniques. Later on she started trying that recipes at home. Simultaneously she was also researching on various global bakery products and helping her cousin sister to setup her own home baking business. As she completed her degree she got placed in a logistic company in the Airfried department. After getting placed in a company her passion of baking was getting some set back but on the occasion of her department head's birthday she baked a cake for him and after that her colleagues started knowing her talent and business. Thereafter she started getting the orders from her office colleagues and she again started focusing on her baking career and side by side she started learning some new tricks and tips of making cakes so that she can upgrade herself in this field. Later on she quitted her office and started building her own brand of cake named 'Dream Castle' as her dream is to build her own castle of cake.

She then even participated in a cooking show and won it she also utilized that opportunity by getting a guidance from that shows judge. She also collaborated with some colleges during their events. She also started her own instagram page for marketing because of which she got to be known by the people out of the friends circle. Recently in the month of December she delivered 25 cakes in New year Eve. In covid duration her business got a bit affected but she answered all the set back by a comeback by delivering homemade chocolates all over India means taking her business to 'Pan India'. She struggled a lot to be at the position she is now in the field of Home bakers even though there were many experienced home bakers in the market but she never got afraid of the competition and upgraded her as much as she can n still trying to upgrade herself in this field and expects to have large share in the cake market.

CONCLUSION

Empowerment cannot be explained in a simple way as it is multi-dimensional social process that occurs within sociological, psychological and economic spheres at various levels. The major concern of any government is to bring women into mainstream of national development as women's empowerment is the key to socio-economic development of the country.

The term women empowerment has been always misunderstood as revengeful or revolution but very few have really understood the term in its correct and positive sense

Women empowerment is possible when women have full autonomy to spend their income and resources, as it is observed and learned during the communication with Ms Binali she strongly believes that money and authority makes the women powerful in the society.

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WE WILL GO TO WAR WITH DEEPFAKES (AI AND PATTERN RECOGNITION)

¹Mr. Karan Shirke and ²Mrs. Sunanda Sunil Mulgund¹Student and ²Assistant Professor, Shri Ram College of Commerce, Bhandup**ABSTRACT**

Deep learning has been successfully applied to solve various complex problems ranging from big data analytics to computer vision and human-level control. Deep learning advances however have also been employed to create software that can cause threats to privacy, democracy and national security. One of the most recent in-depth applications to read is "deepfake".. Deepfake algorithms can create fake images and videos that humans cannot distinguish them from authentic ones. A suggestion of technology that can automatically detect and test integrity of digital visual media is therefore indispensable.

This paper presents a survey of algorithms used to create deepfakes and, more importantly, techniques proposed to detect deepfakes in the literature to date. We present extensive discussions on challenges, research styles and indicators related to deepfake technologies. By reviewing the background of deepfakes and state-of-the-art deepfake detection technique, this study provides a comprehensive overview of deepfake techniques also helps the development of new and robust techniques to deal with the increasingly challenging deepfakes.

Keywords: Survey, review, deepfakes, artificial intelligence, deep learning, computer vision, CNN, auto encoders, forensics, GAN, generative adversarial networks.

INTRODUCTION

Deepfake (stemming from “deep learning” and “fake”) is a technique that can superimpose face images of a target person to personal video that is the source of creating a video of the target person doing or saying things the source person does. The underlying mechanism for deepfake creation is deep learning models such as auto encoders and counter-productive networks, widely used in computer vision domain. These models are used to assess a person's facial expressions and movements and synthesize facial images of another person making analogous expressions and movements. Deepfake techniques usually require a large amount of image and video data to train models to create photo-realistic images and videos. Like celebrities such as celebrities and politicians, they may be of great value of videos and images available online, they are initial targets of deepfakes. Deepfakes are used to exchange faces with celebrities or politicians for pornography images and videos. The first deepfake video appeared in 2017 in which a celebrity face changed to face of a porn actor. It threatens global security where deep deceptive techniques can be hired to create videos of world leaders with fake speeches for falsification purposes.

Deepfakes can therefore be misused to provoke political or religious tensions within countries, to fool public and affect the results of election campaigns, or create chaos in the financial markets by creating fake news. It may be used to produce fake Earth satellite images to contain an objects that do not really exist to confuse military analysts, e.g., to create a fake bridge across the river even though there is no such bridge in reality. This can mislead a troop who has been guided to cross the bridge in a battle.

GAN GENERATED IMAGE/ VIDEO DETECTION

Traditional forgery can be detected. Zhou et al proposed two-stream CNN for facetampering detection. Noise Print employed CNN model to trace device fingerprints for forgery detection. Recently, detecting GAN generated images or videos have also made progress. Li et al. observed that Deep Fake faces lack realistic eye flashing, as training images obtained on the Internet usually do not include pictures that blind the victim. The lack of eye flashing is detected with a CNN/RNN model to expose Deep Fake videos. However, these discoveries can be avoided by deliberately mixing images with closed eyes in training. Yang et al. use head-to-head contact to get fake videos. The work exploited the color disparity between GAN generated images and real images in non-RGB color spaces to classify them. The work also analyzed the color difference between GAN images and real images. However, it is not clear if this technique is extensible to inspecting local regions as in the case of Deep Fake. The work extended to temporal domain by incorporating RNN on CNN. Although it shows promising performance, this all-encompassing approach has its drawbacks. In particular, it requires both real and fake images as training data, and generating the fake images using the AI-based synthesis algorithms is less efficient than the simple mechanism for training data generation in our technique.

DEEPFAKE CREATION

DEEPFAKE CREATION Deepfakes has become famous for its quality of distraction and also the easy-to-use ability of their applications to a wide range of users with various computer skills from professional to novice.

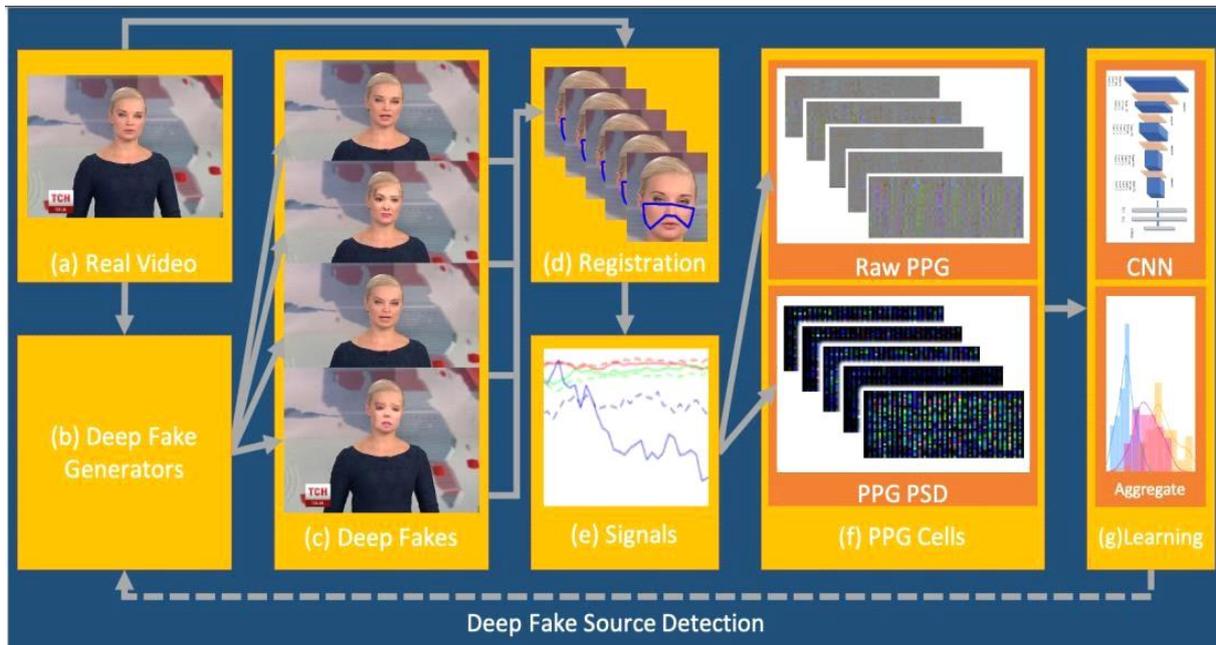
These applications are mostly developed based on deep learning techniques. Deep learning is well known for its capability of representing complex and high-dimensional data. One variant of the deep networks with that capability is deep auto encoders, which have been widely applied for dimensionality reduction and image compression. The first attempt to create deepfake was FakeApp, developed by a Reddit user using auto encoder-decoder pairing structure. In that technique, the auto encoder extracts latent features of face images and the decoder is used to reconstruct the face images. To switch faces between source images and target images, there is a need for both encoder decoder pairs where each pair is used to train on an image set, and the encoder's parameters are shared between two network pairs. In other words, two pairs have the same network of network codes.

This strategy enables the standard encoder to detect and learn similarities within two sets of facial images, which are less problematic in comparison because the face tends to have it similar features such as eyes, nose, mouth location. A deep fake creation process where the feature set of face A is connected with the decoder B to reconstruct faces B from the original face A. This approach is applied in several works such as Deep Face Lab, Faker, Deep Fake TF (tensor flow based deep fakes). A deep fake creation model using two encoder-decoder pairs. Two networks use the same encoder but different decoders per training process (top). An image of face A is encoded with the common encoder and decoded with decoder B to create a deep fake (bottom). By adding the contradictory loss and dementia applied to VGGFace in the encoder-decoder architecture, an improved version of deep fakes based on the generative adversarial network (GAN), i.e. face swap-GAN, was proposed in. VGGFace loss of vision is added to make eye movements realistic and consistent on the insertion surface and helps to smooth out the artifact in the separation mask, which leads to higher quality output videos. This model facilitates the creation of outputs with 64x64, 128x128, and 256x256 resolutions. In addition, the multi-task convolution neural network (CNN) from the FaceNet implementation is introduced to make face detection more stable and face alignment more authentic. The CycleGAN is utilized for generative network implementation.

DEEPPFAKE DETECTION

Deep fakes are increasingly detrimental to privacy, society security and democracy. Ways to detect deep fakes have been proposed as soon as this threat is introduced. Initial efforts were based on hand-drawn elements found in artifact as well inconsistencies of the fake video synthesis process.

Recent techniques, on the other hand, applied deep learning to automatically extract salient and discriminative features to detect deep fakes.



Deep fake detection is normally deemed a binary classification problem where classifiers are used to classify between authentic videos and tampered ones. This kind of techniques requires a large database of real and fake videos to train classification models. The number of fake videos is increasingly available, but it is still limited in terms of setting a benchmark for validating various detection techniques. To address this issue, Korshunov and Marcel produced a notable deep fake data set consisting of 620 videos based on the GAN model using the open source code Faceswap-GAN. Videos from the publicly available VidTIMIT database were used to generate low

and high quality deep fake videos, which can effectively mimic the facial expressions, mouth movements, and eye flashing.

These videos were then used to test various deep fake detection techniques. Test results show that the popular face recognition systems based on VGG [48] and Facenet are unable to detect deep fakes effectively. Other techniques such as lip- syncing approaches and image quality metrics with support vector machine (SVM) produce very high error rate when applied to detect deep fake videos from this newly produced data set. This raises concerns about the critical need of future development of more robust techniques that can detect deep fakes from real.

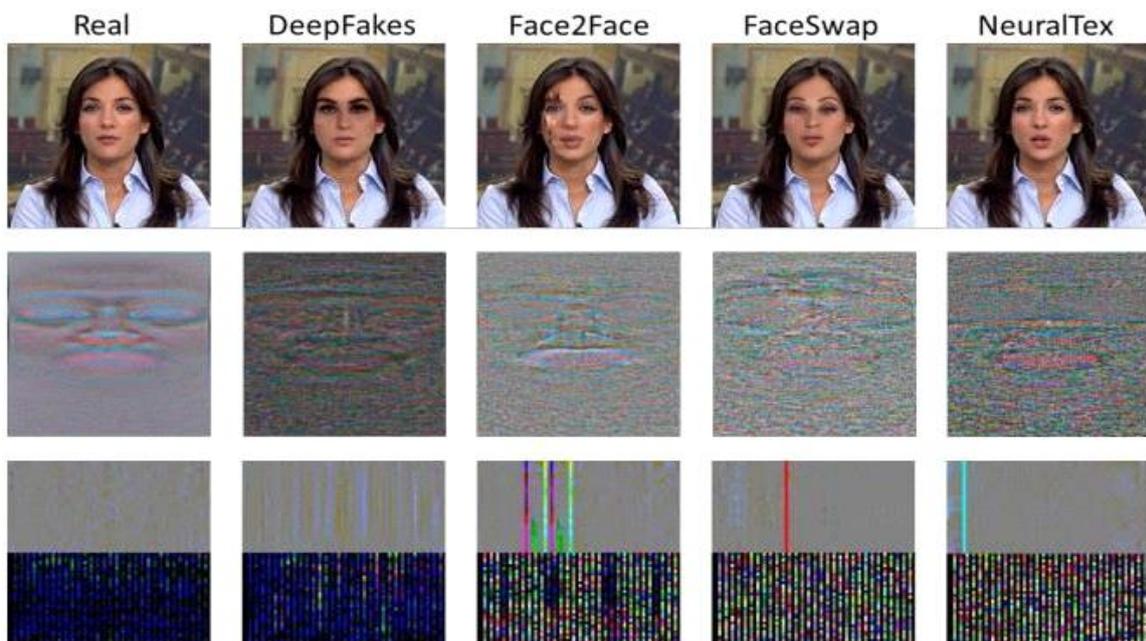
FAKE IMAGE DETECTION

Face swapping has a number of compelling applications in video compositing, transfiguration in portraits, and especially in copyright protection as it can return faces to photos with them from a collection of stock images. However, it is also one of the techniques used by cybercriminals to break in identification or authentication systems to gain illegitimate access. The use of in-depth readings like CNN and GAN have made the transformed face images much more controversial in forensics models as it can maintain posture, facial expressions and light photographs. Zhang et al. he used the word bag technique to extract a set of integrated elements and incorporate them various classifiers such as SVM, random forest (RF) and multi-layerperceptions (MLP) for discriminating swapped face images from the genuine.

Among deep learning generated images, those synthesized by GAN models are probably most difficult to detect as they are realistic and high quality based on GAN’s capability to learn distribution of the complex input data and generate new outputs with similar input distribution. Most are working on finding GAN-produced images yet not considering the type generalization capability of the detection models although the development of GAN is ongoing, and many new extensions of GAN are frequently introduced. Xuan et al. use the pre-image processing step, e.g. Gaussian blur and Gaussian sound, in order to eliminate low level indicators of high frequency GAN images. This increases the pixel rate of statistical similarity between real and false images and requires the forensic classifier to learn more intrinsic and meaningful features, which has better generalization capability than previous image forensics techniques or image steg analysis networks.

FAKE VIDEO DETECTION

Most image detection techniques cannot be used for videos because of the strong degradation of the frame data after video compression. Furthermore, videos have temporal characteristics that are varied among sets of frame and thus challenging for techniques designed to detect only still fake images. This subsection focuses on deep fake video detection techniques and categorizes them into two groups: techniques that use temporary features and those that test visuals artifact within frame.



- **Temporary Features in All Video Frame:** Based on that temporary recognition coherence is not enforced effectively in the synthesis process of deep fakes, Saber leveraged the use of patio-temporal features of video streams to detect deep fakes. Video manipulation is done frame by frame for low quality artifact

produced by deception they are believed to continue to manifest themselves as temporary artifact with inconsistencies across frame. A recurrent convolution model (RCN) was proposed based on the integration of the convolution network DenseNet and the gated recurrent unit cells to exploit temporal discrepancies across frame. The proposed technique is tested on the Face Forensics ++ data set, which includes 1,000 videos, and shows promising results.

- **Visual Artifact within the Video Frame:** As may be noted in the previous paragraph, the techniques using temporary patterns across all video frame are heavily based on a deep recurring network models to detect deepfake videos. This article explores another common cause of video corruption into frame and explores visual artifact within single frame to obtain discriminant features. These features are then distributed into either a deep or shallow classifier to differentiate between fake and authentic videos. Thus we summarize the techniques in this clause based on the types of dividers, i.e. deep or shallow.

EVALUATIONS ON DEEPFAKETIMIT

In addition, we also validate our technique on another Deep Fake video dataset DeepfakeTIMIT. This dataset contains two set of fake videos which are made using a lower quality (LQ) with 64 x 64 input/output 49. Performance of each CNN model for all independent in DeepFakeTIMIT LQ set. Performance of each CNN model on all frame in HQ set of DeepFakeTIMIT. high-quality (HQ) model with a size of 128 x 128, respectively. Each set of fake video has 32 titles, of which each has 10 videos with changed faces. Each video is 512×384 and lasts ~ 4 seconds. The first 32 videos of related topics are from the VidTIMIT database. We select a subset of each topic in the VidTIMIT database and all lies videos from DeepfakeTIMIT for verification (10537 original images and 34023 counterfeit images for each quality set). We test our four models in each frame of all videos based on the AUC matrix, there performance of VGG16, ResNet50, ResNet101 and ResNet152 models for LQ and HQ video sets are 84.6%, 99.9%, 97.6%, 99.4% and 57.4%, 93.2%, 86.9%, 91.2% respectively. We have also tested our algorithm on several Deep Fake videos that were generated and uploaded to YouTube by anonymous users. We are showing the results of the acquisition as a result of the ResNet50 CNN model for one particular, where an output of 0 corresponds to a frame free of the warping artifact. As these results show, the CNN model is effective in detecting the existence of such artifact, which can be used to determine if these videos are synthesized using the Deep Fake algorithm.

COMPARING WITH STATE-OF-THE-ARTS

We compare the AUC performance of our technique with other state-of-the-art techniques: the face tampering detection technique Two-stream NN, and two Deep Fake detection techniques MesoNet and HeadPose on the UADFV dataset and DeepfakeTIMIT dataset. At MesoNet, we are exploring two proposed structures: Meso-4 and MesoInception-4. The effectiveness of all techniques. As the results show, our ResNet models outperform all other techniques. Specifically, ResNet50 achieves best performance, which outperforms Two-stream NN by $\sim 16\%$ on both datasets that thereby demonstrates the efficacy of our technique on Deep Fake video detection. Our approach also exceeds Meso-4 and MesoInception-4 $\sim 17\%$ and $\sim 21\%$ in both. datasets. Specifically, our technique has a notable advance in HQ set of DeepfakeTIMIT. Since MesoNet is trained using self-collected Deep Fake generated videos, it may over-fit to a specific distribution of Deep Fake videos in training. In contrast, our technique focuses on more intuitive aspect in Deep Fake video generation: resolution inconsistency in face warping, which is thereby more robust to Deep Fake videos of different sources. HeadPose uses head pose inconsistencies to distinguish real videos from fiction. However, such physiological signal may not be notable in frontal faces, such that our technique outperforms it by $\sim 8\%$ on UADFV.

TECHNIQUES

In this study, deepfake videos have been detected based on eye flashing by using UADFV datasets. First, publicly available data sets are eligible for acquisition have been compared. Second, deepfake detection techniques have been compared and CNN and LSTM selected that are suitable to detect deep fakes using eye flashing speed. In the technique section, describe the way to detect fake videos via eye flashing. Eye flashing is the quick opening and closing movement of the eyelid. First focuses on the face, next detects the eyes, and then determines the eye flashing rate from the video. Finally, present the eye flashing and overall detection accuracy results. In order to detect the eye area in each video frame, the eye aspect ratio between height and width of the eye is calculated. The CNN classifies the eye states and the eye aspect ratio classifies the eye flashing rate. Then CNN and eye aspect ratio detect the eye flashing intervals.

MODEL TRAINING

The VGG16 and ResNet-50 based CNN model was trained on a training dataset that contains open and closed eyes regions. The VGG16 and ResNet-50 based CNN model was trained on a training dataset that contains open and closed eyes regions. The MRL is an eye image dataset that contains approximately 15000 closed and

open eye images to train the models. In the training 100 closed and open eye images were used to train the models and 98 fake and real videos as the training put for the model.

RESULTS AND DISCUSSION

The deepfake video detection using CNN and LSTM based on eye flashing rate was tested on UADFV publicly available dataset. UADFV has 98 videos of which 49 fake and 49 real videos and these videos contain 32,752 frame sequences. In the dataset, each videos length ranges between 2 to 44 seconds and the average length is 11.26 seconds. As illustrated in the table below Table-II, in the experiment UADFV publicly available 49 real video datasets contains 16,376 frame sequences. The trained model detects 18.4 eye blinks per minute from the real 49 videos. The normal person eye flashing rate was used as a threshold so that the proposed technique detects the video as a real video that exists within the threshold. The trained model detects 4.28 eye blinks per minute on 49 fake videos which are slower than the threshold and the trained model detects the fake videos that exist above the threshold.

DEEFAKE DETECTION CHALLENGES

Now a day different deepfake detection techniques have been introduced and evaluated however using unorganized datasets. Improving the performance of detection techniques, growing standardized datasets and evaluating the deepfake detection techniques will simplify the development of accurate and effective deep learning-based detection techniques, which requires a standard dataset. The deep fakes' quality has been improving and the performance of detection algorithms requires to be enhanced consequently. Developing better detection techniques to combat fakes generated by deep fakes because artificial intelligence that power deep fakes are rapidly developing, making deep fakes so hard to detect. Also, currently, detection techniques typically emphasize the weaknesses of the deepfake creation tools. This approach is not always functional to detect deep fakes created by all deepfake creation tools. This is a challenge for deepfake detection techniques development and in future research requires an emphasis on proposing scalable, accurate, authentic and crossplatform detection techniques. Facebook has prepared a deepfake detection competition with the partnership on Artificial Intelligence, Amazon, Microsoft, and with some Universities. This competition aims to invite researchers around the world to develop better detection techniques to detect deep fakes. This helps to build better detection techniques to combat fakes generated by deepfakes because deep learning that power deepfakes are rapidly developing and making so hard to detect.

CONCLUSION

Deep learning can be used as a deepfake creation, and detection techniques. Deepfake creates forged images or videos that persons cannot differentiate from real images or videos. Deepfakes are created using productive enemy networks, in which two machines learning models exit. One model trains on a dataset and the other model tries to detect the deepfakes. The copyist creates fakes until the other model can't detect the falsification. Deepfakes creating fake news, videos, images, and terrorism events that can cause social, and financial fraud. It is increasingly affecting religions, organizations, individuals and communities', culture, security, and democracy. Now a day deepfake creation tools can create fake videos by mimic facial expressions of the person exactly so that it is become difficult to detect deepfakes by using facial expressions like eye flashing, and lip-movement. Therefore, both image and video deepfake detection techniques are needed performance improvement, evaluation standards, and parameters. Moreover, will improve deepfake detection by integrating deepfake detection and object detection algorithms.

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ROLE NPA IN BANKING SECTOR OF INDIA

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INTRODUCTION

Indian banking sector helps the nations in developing the business and service sectors. But recently banks are facing problems of credit risk during pandemic. RBI has thus implemented Loan Moratorium during the lockdown months which has given relief to the borrowers as well as helped banks to cut Gross Non- Performing Assets. If Loan moratorium had not been there, the GNPA's would be likely higher. The Gross Non- Performing Assets ratio of the banks has significantly reduced by the end of the first quarter, due to recoveries and higher write-offs.

The Non performing assets (NPA) position of the Indian banking system is represented by 23 banks out of which nine are public sector banks (PSBs) and fourteen are private sector banks (PvBs).

The main aim behind making this paper is to know how banks are operating their business and how NPAs play its role in the operation and management efficiency of the banks.

Thus, the study will help to understand the performance and growth of banks as compared to NPAs. This paper explores empirical approach to the study NPA of bank.

Keywords: NPA, Banking, GNPA's, Loan

OBJECTIVE OF THE STUDY:

1. To study the NPA of public sector banks.
2. To analyze NPA of public sector banks.

LIMITATIONS:

The present study has following limitations such as:

1. The study is based on secondary data as published in various RBI reports and other reports.
2. These data is based on historical accounting concept, which ignores the impact of inflation.

DATA ANALYSIS AND INTERPRETATION:

The major types of data analysis done by using statistical analysis for interpretation of the data. To reach certain relevant results, the data collected from various sources have been tabulated, analyzed and interpreted with the help of appropriate statistical techniques by using excel, tabulation, percentage, graphs etc.

Analyzing of data: for analysis of the data, it was edited and turned them in the useful tabulations. So, that it can become useful paper.

Trends in NPAs In **Public Sector Banks**

TABLE 58 : GROSS AND NET NPAs OF SCHEDULED COMMERCIAL BANKS								
BANK GROUP-WISE								
(Amount in ` Billion)								
Year (end- March)	Advances		Non-Performing Assets (NPAs)					
	Gross	Net	Gross			Net		
			Amount	As Percenta ge of Gross Advance s	As Percentage of Total Assets	Amount	As Percentage of Net Advances	As Percenta ge of Total Assets
1	2	3	4	5	6	7	8	9
Public Sector Banks								
2005-06	11347.24	11062.88	421.17	3.7	2.1	145.66	1.3	0.7
2006-07	14644.93	14401.46	389.68	2.7	1.6	153.25	1.1	0.6

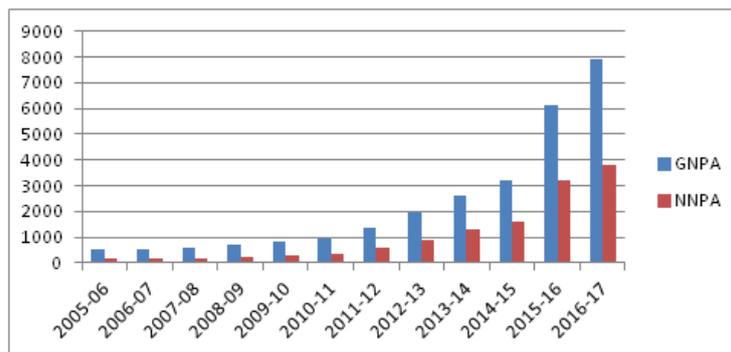
2007-08	18190.74	17974.01	406.00	2.2	1.3	178.36	1.0	0.6
2008-09	22834.73	22592.12	459.18	2.0	1.2	211.55	0.9	0.6
2009-10	25193.31	27013.00	573.01	2.3	1.3	296.43	1.1	0.7
2010-11	30798.04	33044.33	710.42	2.3	1.3	360.55	1.1	0.7
2011-12	35503.89	38773.08	1124.88	3.2	1.9	593.91	1.5	1.0
2012-13	45601.69	44728.45	1644.61	3.6	2.4	900.37	2.0	1.3
2013-14	52159.20	51011.37	2272.64	4.4	2.9	1306.35	2.6	1.6
2014-15	56167.18	54762.50	2784.68	5.0	3.2	1599.51	2.9	1.8
2015-16	58219.52	55935.77	5399.56	9.3	5.9	3203.76	5.7	3.5
2016-17	58663.73	55572.32	6847.33	11.7	7.0	3830.89	6.9	3.9

Source: RBI website

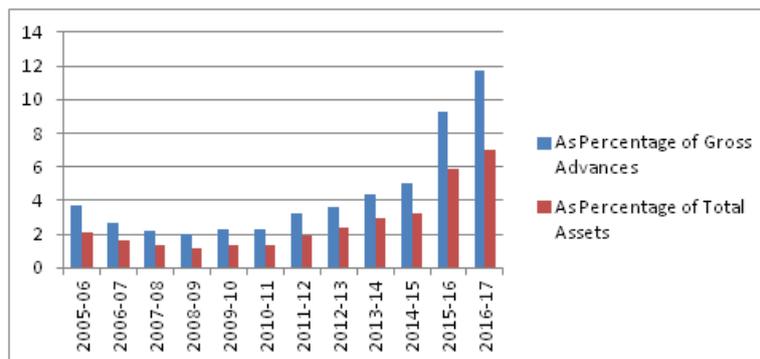
It is observed in above table that GNPA has increased in 2016-17 to 6847.33 Billion from 421.17 billion in the year 2005-06 of the public sector banks. Also NNPA has increased in 2016-17 to 3830.89 Billion from 145.66 billion in the year 2005-06 of the public sector banks. Also percentage Gross Advances to GNPA was 3.7 in 2005-6 and increased to 11.7 in 2016-17 and Percentage of Total Assets to GNPA was 2.1 in 2005-6 and increased to 7.0 in 2016-17

Also percentage Net Advances to NNPA was 1.3 in 2005-6 and increased to 6.9 in 2016-17 and Percentage of Total Assets to NNPA was 0.7 in 2005-6 and increased to 3.9 in 2016-17

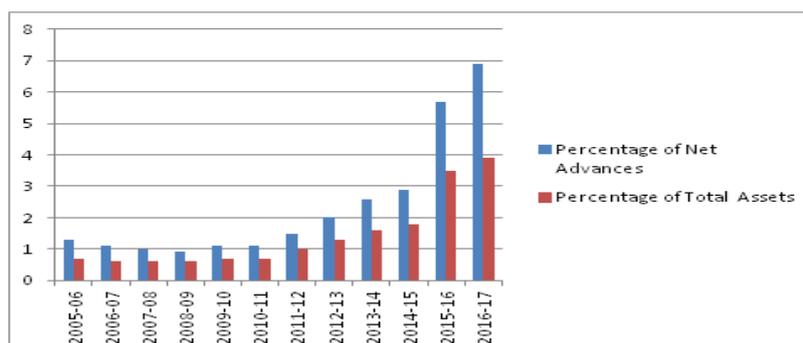
Gross NPA and Net NPA from 2005-6 till 2016-17 of Public sector Banks



Percentage of Gross Advances and percentage of total assets to GNPA of Public sector Banks



Percentage of Gross Advances and percentage of total assets to NNPA of Public sector Banks



Gross non-performing assets of public banks have doubled in seven years

Bank	Gross NPAs as on 30.6.2014 (Rs cr)	Gross NPAs as on 30.9.2021 (Rs cr)
Bank of Baroda	15,879	46,382
Bank of India	11,160	40,915
Bank of Maharashtra	3,761	6,403
Canara Bank	12,647	52,494
Central Bank of India	11,449	27,252
Indian Bank	12,013	36,081
Indian Overseas Bank	8,781	13,835
Punjab and Sind Bank	3,010	9,823
Punjab National Bank	32,416	98,484
State Bank of India	74,482	120,811
UCO Bank	5,982	10,182
Union Bank of India	22,199	77,781
IDBI Bank	10,762	-
Total	224,542	540,442

Source: Government data

From above table it is observed that GNPA has doubled of public sector banks in last seven years. IDBI Bank was recategorised as a private bank by RBI from 21.1.2021

FINDINGS & SUGGESTIONS:

- GNPA is one of the key indicators of banking sector. According to the analysis Gross NPA percentage is higher in public sector bank and continuously increasing.
- Net NPA is another key parameter of financial position of bank. As per the analysis Public sector bank's net NPA is continuously increasing.
- Gross non-performing assets of public banks have doubled in seven years.
- Non-performing assets are one of the major concerns for banks in India. NPAs reflect the performance of banks.
- The bank can also take certain steps to recover the loan in time.
- Banks should also restructure their loans properly.
- Measures provided by the RBI should follow by banks rigorously.
- RBI should make stringent policies to control NPA.

CONCLUSION

It can be concluded that by taking protective actions NPA can be reduced. A strong banking sector is indicator of strong economy of the country. Continues increase in NPA of banking sector may have an adverse effect on other sectors. Non-performing assets are one of the major concerns for banks in India. NPAs reflect the performance of banks. A high level of NPAs suggests high probability of a large number of credit defaults that affect the profitability and net-worth of banks and also destroy the value of the asset. Non performing asset is the one of the important factors which shows the monetary hassle of public sector banks in India. NPA is one of the major problems in banking sector. It is not possible to totally cut the NPA from banks but we should try to remove certain part of NPA from banks.

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- <https://www.investopedia.com/terms/n/non-performing-assets.asp>

FUTURE OF ROBOTIC**¹Krushikesh A. Bichitkar and ²Pooja S Gupta**¹Student and ²Assistant Professor, Shri Ram College of Commerce, Bhandup**ABSTRACT**

When we think of robots, we might visualise sci-fi inspired, human-like mechanisms. While these types of machines are commonly imaginary, there are various other types of robots functioning in the world today. But what are robots? And how will they change the world?

Here, we explore the history and types of robots, some specialists and cons of using them and there applications, history of robots and how they might shape the future.

Keywords: What is a robot, types of robots, different applications of robots, history of robots, advantages and disadvantages?

INTRODUCTION

Let's start with some definitions. Robotics, design, structure, and use of machines (robots) to perform tasks done usually by human beings. Robots are widely used in such industries as automobile production to perform simple repetitive tasks and in industries where work must be performed in environments risky to humans.

Robotics is an interdisciplinary division of computer science and engineering. Robotics involves design, construction, operation, and use of robots. The goal of robotics is to design machines that can help and assist humans. Robotics integrates fields of mechanical engineering, electrical engineering, information engineering, mechatronics, electronics, bioengineering, computer engineering, control engineering, software engineering, mathematics, etc.

What is robotics?

Robotics is the connection of science, engineering and technology that creates machines, called robots, that substitute for (or replicate) human actions. Pop culture has always been enchanted with robots.

As technology developments, so too does the range of what is considered robotics. In 2005, 90% of all robots could be establishing assembling cars in automotive industrial unit. These robots contain generally of mechanical arms tasked with welding or screwing on certain parts of a car.

Types of robots:-

Although the theory of robots has existed for several years normally, there are five types of robots:

1) Pre-Programmed Robots

Pre-programmed robots work in a controlled environment where they do simple, repetitive tasks. An example of a pre-programmed robot would be a mechanical arm on an automotive assembly line. its job is to perform that task longer, faster and more efficiently than a human.

2) Humanoid Robots

Humanoid robots are robots that be similar to and/or mimic human behavior. These robots usually do human-like activities (like running, jumping and carrying objects), and are sometimes designed to look like us, even having human faces and languages.

3) Autonomous Robots

Autonomous robots operate individually of human operators. These robots are usually planned to perform tasks in open environments that do not have need of human observation. An example of an autonomous robot would be the Roomba vacuum cleaner, which uses sensors to roam freely throughout a home.

4) Teleoperated Robots

Teleoperated robots are semi-autonomous robots that use a wireless network to support human control from a safe distance. These robots usually work in risky geographical conditions, weather, circumstances, etc. Examples of teleoperated robots are the human-controlled submarines used to fix underwater pipe leaks during the BP oil spill or drones used to detect landmines on a battlefield.

5) Augmenting Robots

Augmenting robots either improve current human abilities or swap the capabilities a human may have lost. The field of robotics for human augmentation is definition of humanity by making humans faster and stronger. Some examples of current augmenting robots are robotic prosthetic branches or exoskeletons used to lift large weights.

The future of robotics: Will robots take over the world?

Robots rise production. They are very important for continued development and for organizations, but at the same time they destroy jobs and they cut labor demand.

The organization cites that automation will displace about 85 million jobs by 2025. WEF (World Economic Forum) says there's nothing to concern about since its analysis expects the future tech-driven economy will create 97 million new jobs.

Currently, around 30% of all tasks are done by machines—and people do the rest. However, by the year 2025, it's believed that the balance will affectedly change to a 50-50 alignment of humans and machines.

Advantages of Robotics:-

- Cost Effectiveness
- Improved Quality Assurance
- Increased Productivity
- Work In Hazardous Environments

Disadvantages of robotics:-

- Potential Job Losses
- Initial Investment Costs
- Hiring Skilled Staff

CONCLUSION

In some industries, robots are switching human jobs, which can generate economic problems. Nothing in this world is 100% bad of 100% good. It depends on the way you wish to see the whole picture. The robotics will be good for world and also bad for world.

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MARKETING AND SUPPLY CHAIN MANAGEMENT**¹Yadav Neeraj and ²Prof. Sunita Pramod Sonar**¹Student and ²Assistant Professor, Shri Ram College of Commerce, Bhandup**ABSTRACT**

In this research, we investigate and identify the interface areas or areas of overlap between marketing and logistics/supply chain management in marketing research. We do this by reviewing and classifying the articles published in the last three years in the three most important marketing journals, namely: was used as a guide in developing nine groups of marketing /logistics/supply chain management concepts on which the classification of articles were based. We also identify the current common areas of interests as well as future research trends in logistic/ supply chain management research from marketing perspective on one hand and from logistic/supply chain management perspective on the other. This we did by reviewing recently published supply chain related articles by supply chain management scholars/research in the journals of supply chain management, operation management, and other journals and then compare the areas of logistics/supply chain research interests or focus in these articles with the marketing's area of research interests or focus. The result show that articles published in the three major marketing journals reviewed cover a wide variety of logistics and supply chain management and relationship marketing concepts. Nonetheless, logistics/supply chain concept or areas which are entirely left uncovered in the last three years by these three major marketing journals.

Supply Chain management is a critical aspect of conducting any business. In these articles, we provide an overview of the advancement in supply chain management. In the initial section, we present alternative definition and key issues related to supply chain management followed by a discussion of complexities associated with managing supply chain.

Key word: Supply chain, management, operation Management, Manufacturing, services, logistics, Sourcing, outsourcing procurement, completion, Information, Technology, Globlization, Sustainability.

INTRODUCTION

One of the most important components of running a business is supply chain management. Many people outside of the immediate community (in research and industry) are unaware of this because the average consumer only sees the impacts. your content in a timely and efficient manner!

Both scholars/researchers and practitioners recognize that the integration of organization functions as collaborative working bodies, as opposed to individually operating silos, has great impact on organizational performance. Along this line, many studies have been conducted to shed light on the methods and practices of integrating different organization functions. One of the key areas of inter-functional or interdepartmental integration is the integration of marketing and logistics areas or functions. In this research, we will shed light on the possible areas of investigate which emphasize and enhance the logistics-marketing interface. The study will look at articles published between January 2009 and June 2012 in three major marketing journals: Journal of Marketing Research, Journal of International Marketing, and Journal of Marketing. The book by Kotler and Keller will be used as the primary source of information in identifying the logistics and supply chain management concerns raised in these articles. As a result of this reference, issues or concepts connected to logistics/supply chain management that appear in the publications will be identified, assessed, and classed. As a result, our study will pinpoint the exact supply chain concerns that marketing is focusing on.

Configuration and coordination are the two primary areas of supply chain management concerns. High-level design and basic infrastructure issues are addressed at the configuration level.

1. Configuration-level Issues Supply base decisions**Supply Base Decisions**

How many and what kinds of suppliers to have? Which parts to outsource and which to keep in house? How to standardize and streamline procurement practices? Supply base decisions

How many suppliers should there be, and what kind should they be? Which components should be outsourced and which should be kept in-house? How might procurement methods be standardised and streamlined? Should auctions be held on vertical Marketplaces or should they be held on highly integrated supply Partnerships? How lengthy or short should supplier contracts be?

2. Plant location decisions

Where and how many manufacturing, distribution, or retail outlets to have in a global production .Distribution network? How much capacity should be installed at each of these sites? What part of the supply chain should be kept onshore, near-shore, or offshore? What kind of distribution channel should a firm utilize—traditional brick and mortar, direct to consumer via Internet or

Product Portfolio Decisions

What types of products and services will the supply chain be able to support? How much variety should you offer your customers? What level of product portfolio similarity should there be? Information support decisions

Should enterprise resource planning software be standardized across functional units of a firm? Should the supply chain work on standard protocols such as XML (extended markup language or on proprietary standards?

3. Coordination-Level Issues

Material flow decisions

How much inventory of different types of products should be stored? Should inventory be accepted in finished form or semi finished form? How often should inventory be replenished?

Should a firm make all of its inventory decisions or is it better to have the vendor manage the Inventory? Should suppliers be required to deliver goods just in time?

Information Flow Decisions

In what form is information shared between different entities in the supply chain—paper, voice via telephone, EDI (electronic data interchange), XML? To what degree does collaborative Forecasting take place in the supply chain? What kind of visibility is provided to other entities in the supply chain during execution? How much collaboration takes place during new product or service development among the supply chain partners?

Cash Flow Decisions

What types of products and services will the supply chain be able to support? How much variety should you offer your customers? What level of product portfolio similarity should there be?

Capacity Decisions

How to optimally utilize the existing capacity in terms of manpower and machines? How to Schedule on a manufacturing line to complete jobs on time? How much buffer capacity to have for abnormal situations with excess demand?

Complexities Associated with Supply Chains

Supply chain management, as discussed in the previous section, encompasses a variety of functional and geographical sectors. This adds to the complexity of supply chain design as well as execution. The following are some of the important aspects that can make supply chain management decisions more difficult.

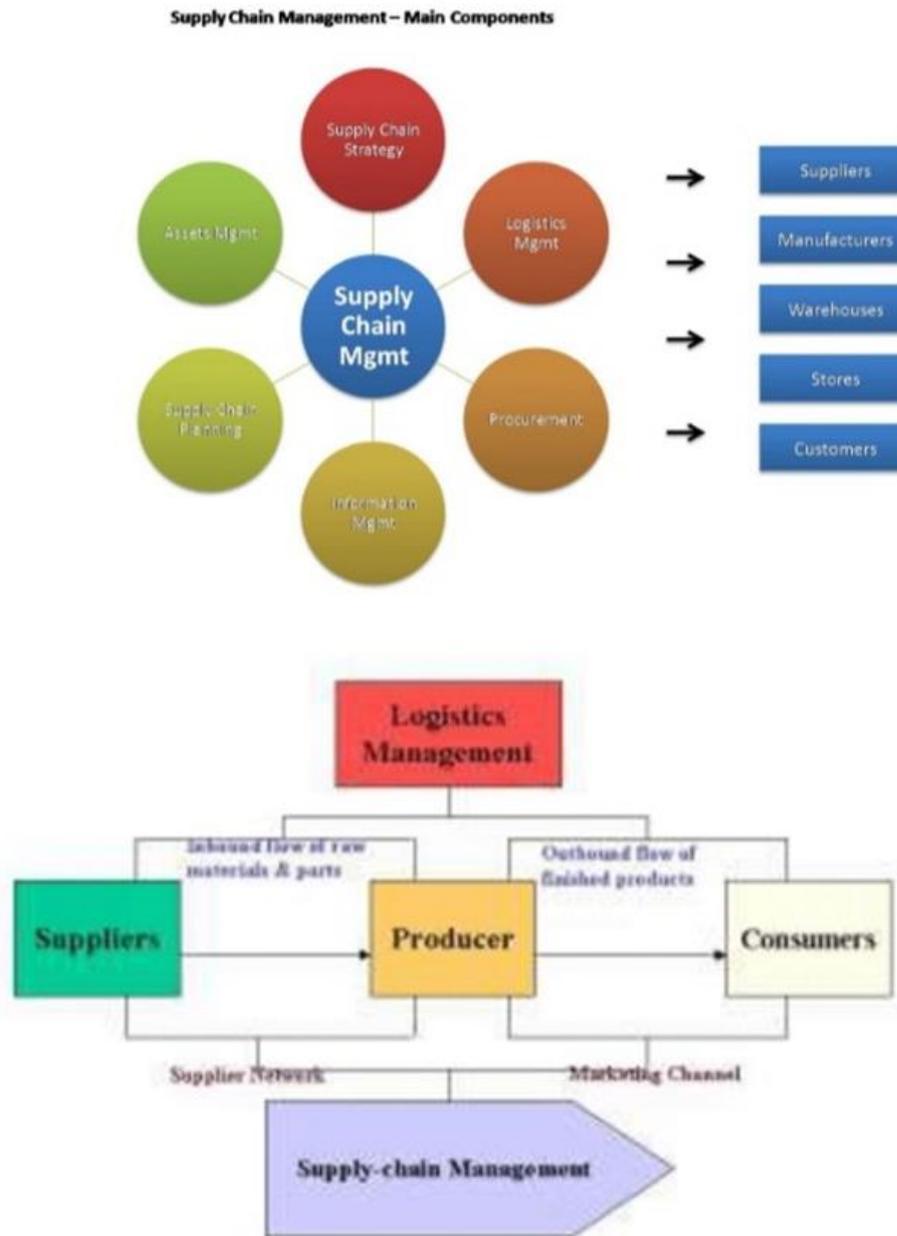
4. Multiple Agents

Different entities, sometimes with conflicting interests, must decide on supply chain concerns. For example, a retailer may request that the distributor provide extremely high product availability while avoiding charging the shop any additional fees. Even when decisions have to be made within the same firm there could be incentive issues. For example, the marketing or sales department, typically a revenue centre, presents the future demand forecast to the manufacturing department that is a cost centre. Clearly, there is incentive for the former to over-forecast and the latter to under-produce (as compared to the forecast) This creates several difficulties while deciding on the amount of inventory to be stocked. Another related issue is encountered where the marketing department may push for huge amount of variety in the product/service offerings the manufacturing department may not want to embrace that because additional complexities are created during execution.

METHOD OF DATA COLLECTION

As previously mentioned the journal of marketing, journal of marketing research and journal of international marketing were reviewed for the time period January 2009 to June 2012. These journals were identified as being mainly influential by marketing professors from two universities in Izmir Dokuz Eylul University and Izmir University of Economics. A time period of three years was selected in order to be able to identify the most recent trends in marketing research as related to logistics and supply chain management. There are some concept identified from kotler and Keller's book. Each representing a different form of interface between marketing and logistics and supply chain management concept.

IMPORTANCE



Marketing provides an essential balance in supply chain management. It helps companies and their partners become more focused on consumers rather than on the production process. By improving communications, support and collaboration, marketing helps increase supply chain efficiency and create a single extended enterprise with a strong competitive edge.

BOOST CUSTOMER SERVICES

- Customers anticipate receiving the correct product assortment and amount.
- Customers expect products to be available at the right location. (i.e., customer satisfaction diminishes if an auto repair shop does not have the necessary parts in stock and can't fix your car for an extra day or two).
- Right Delivery Time – Customers expect products to be delivered on time (i.e., customer satisfaction diminishes if pizza delivery is two hours late or Christmas presents are delivered on December 26).
- Post-Sale Support — Customers expect products to be serviced as soon as possible. (For example, when a house furnace breaks down in the winter and repairs can't be completed for days, customer satisfaction suffers.)

- **REDUCING OPERATING COST**
- **Decreases Purchasing Cost** – Retailers depend on supply chains to quickly deliver costly products to avoid holding costly inventory in stores any longer than necessary. For example, electronics stores require fast delivery of 60” flat-panel plasma HDTV’s to avoid high inventory costs.
- **Decreases Production Cost** – manufacturer depend on supply chains to reliably deliver materials to assembly plants to avoid material shortages that would shutdown production. For example, an unpredicted parts shipment delay that causes an auto assembly plant shutdown can cost \$20,000 per minute and millions of dollars per day in lost wages.
- **Decreases Total Supply Chain Cost** – Manufacturers and retailers depend on supply chain managers to design networks that meet customer service goals at the least total cost. well-organized supply chains enable a firm to be more ready for action in the market place. For example, Dell’s revolutionary computer supply chain approach involved making each computer based on a specific customer order, then shipping the computer directly to the customer. As a result, Dell was able to evade having large computer inventories sitting in warehouses and retail stores which saved millions of dollars. Also, Dell avoided carrying computer inventories that could become technologically obsolete as computer technology changed rapidly.

CONCLUSION

It is generally believed that marketing and logistic/supply chain management interface is a phenomenon of greater complexity than the 4Ps of the marketing mix. As a result, research works in marketing that cover and incorporate some logistic and supply chain management concepts are becoming increasingly important. We also identify the current common areas of interests as well as future research trends in logistic/supply chain management research from marketing perspective on one hand and from pure logistic/supply chain management perspective on the other. The result also show that there are some important Logistical supply chain concepts or areas which are entirely neglected in the last three years by these three major marketing journals. These areas include wholesaling, global distribution strategies, and channel conflict and market logistic objectives.

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THE IMPACT OF GOODS AND SERVICE TAX ON EDUCATION**¹Miss. Arti Pal and ²Prof. Shubham Arvind Shrivastav**¹Student and ²Assistant Professor, Shri Ram College of Commerce, Bhandup**ABSTRACT**

GST (Goods and service tax) is major tax reform, in the indirect tax structure of India since Independence. It was designed to provide support and enhance the economic growth of India.

The idea to set up GST in India was developed by the Atal Bihari Vajpayee government in 2000, but the establishment of GST is not so simple as it came into force on July 1, 2017, after so many amendments in it. Before this date, the system to collect indirect tax is as complex as there are different heads of Indirect taxes but GST introduces the system which unifies 17 heads of Indirect taxes into one single set. At present, taxes are levied on goods and services by the collective effort of central and state governments.

GST is implemented by Honourable Prime minister Mr. Narendra Modi Finance minister Mr. Arun Jaitley introduced the GST Bill in the Lok Sabha. The main reason for GST being introduced in India is the tax burden that falls both on companies and consumers whereas GST integrates most tax under one roof, which will be applied to the sale and procurement of goods and services with deducted for tax paid at preceding supply chain stage.

Keywords: - GST, Slab Rate, Pre, and Post-Education, Impact

INTRODUCTION

Goods and services tax is the biggest in indirect tax reform incomplete in July 2017, Replacing a multitude of central as well as state-wise taxes.

Under the provisioning system, the indirect taxes charged on Goods services were in the range of 18% to 14% which has now been restructured to be between 5% to 28% for around 1200 goods and services.

GST has created an environment of 'one nation one tax' which improves the ease of doing business smoothly and steadily in India.

Goods and services tax would be levied at every stage of the sale or purchase of goods or services or both based on 'input tax credit methods.

"Goods and services tax" is a comprehensive tax levied on the manufacture, sale, and composition of goods and services at a national level.

GST is one indirect tax for the entire nation, making India a unified common market. GST intends to subsume most indirect under a single taxation regime GST is a single tax on the supply of goods and services. Right from the producer to the consumer at large.

GST is revenue to the governments by the public and it is an indirect tax that is been used for various purposes for the welfare of the nation and which will help the growth of GDP of the nation for the economic growth and developments. This is an amazing step taken by the government in India.

Education is one of the major sectors of any economy. The education of a country's youth decides how the economy of that country will flourish. Education promotes understanding, vision, creativity, and productivity of people which helps in the advancement of a country. In India, Education is provided both by the public as well as the private sector. Indian government's foremost priority is to provide low-cost education to every person. That's the education sector enjoys lots of tax exam exemptions they are not taxed or come on the negative list. For every benefit received, there is a cost which could be in form of tax also. Perhaps this seemed never so real as today in the Indian context. The thoughtful leaders of India have spared the education sector all along from the levy of taxes considering the importance of the same for the country. If a country wants to grow manifold, then building infrastructure for education and educated infrastructure (people of the country) is a prerequisite. The more knowledgeable the human capital of a country is more are its chances of development. While 'education' continues to be of utmost importance for the country's economic growth, it also has been a priority for the Government in extending tax benefits and other concessions to boost education (both primary and professional or technical) in the country.

.Services provided by the Indian Institutes of Management, as per the guidelines of the Central Government, to their students, by way of the following educational programs, except Executive Development Programmed - "Two-year full-time residential Post Graduate Programmed in Management for the Post Graduate Diploma in

Management, to which admissions are made on the basis of Common Admission Test (CAT), conducted by Indian Institute of Management; Fellow program in Management; Five-year integrated program in Management”. It also includes the services provided by the National Skill Development Corporation set up by the Government of India – “a Sector Skill Council approved by the National Skill Development Corporation; an assessment agency approved by the Sector Skill Council (SSC) or the National Skill Development Corporation (NSDC); a training partner approved by the National Skill Development Corporation or the Sector Skill Council in relation to – (a) the National Skill Development Program implemented by the National Skill Development Corporation; or (b) a Vocational Skill Development Course under the

National Skill Certification and Monetary Reward Scheme; or (c) any other Scheme implemented by the National Skill Development Corporation.” After implementation of GST, a similar situation continued with the tax exemptions for the sector being retained and the most important thing is that educational services and services related to the education or higher education provided to the students are covered under the GST exempt list. According to the GST proposed law, services provided by educational institutions have been kept outside of the Goods and Services Tax (GST). Here, educational institutions mean any of the institutions providing services by way of: -

- ▢ Pre-school education and education up to higher secondary school or equivalent; or
- ▢ Education as a part of a curriculum for obtaining a qualification recognized by any law for the time being in force; or
- ▢ Education as a part of an approved vocational education course

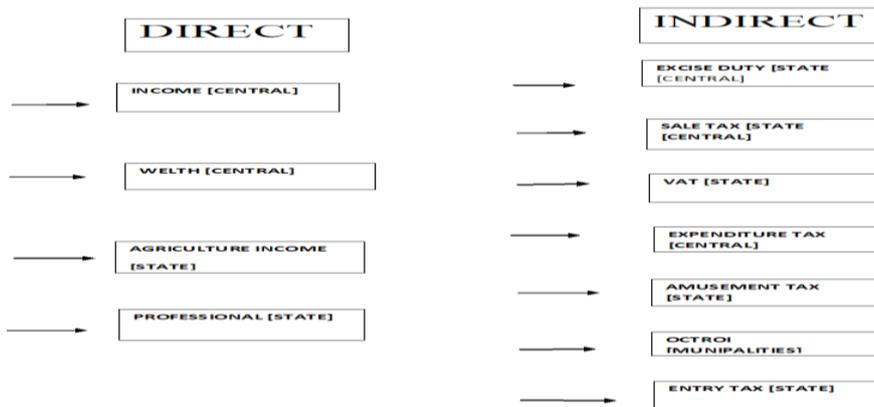
It is a priority sector for the Government of India to provide education at a low cost to one and all. That is the reason why this sector gets lot of tax exemption from the central as well state governments. After the implementation of GST, the situation is still the same as services provided by educational institutions to its students, staff, and faculty like Admissions, examinations, tuition, transportation catering, housekeeping, events, meals, etc. are exempted from goods and services tax. But these exemptions are not provided to every institute, the services of other private institutes’ coaching centers are charged at an 18% slab of GST.

Apart from these schools, GST exemption has also been granted to the services of some other colleges and universities provided to their students.

Education things are Cheaper but services expensive			
Particulars	Current	GST	Difference (%)
Children’s Color book	0	0	0
Stapler, pencil, sharpener	18.68	18	-2.68
School Bag	12.5	18	+5.5
Fountain pen, Nib	18.13	18	-.13
Refill	18.69	12	-.69
Exercise Book	18.68	18	-6.68
Ballpen	18.68	18	-6.68

GST as in the syllabus

By incorporating the Goods and Services tax structure, various colleges and institutes changed their syllabus of B.com and M.com students as a result of GST implementation. It makes students very tense, as there are no appropriate books and other study material available due to continual changes in the same. Time-by-time policy changes GST provision and separate inclusion and exclusion of products and services are there.



Following are the Types of GST

India has selected the Canadian model of dual GST

CGST: central good and service tax

SGST: state good and service tax

IGST: integrated good and service tax

UTGST: is to be gathered by the central government which is an intrastate. it is applicable on supplies within the state the amount of tax collected will be shared by the government

SGST: is to be gathered by the central government which is an intrastate it applies to supply within the state which will be shared by the state government

IGST: is to be collected by the central government then the revenue to be shared by the state and the central government based on the destination of goods which is interstate this is applicable on interstate and import traction and hence tax collected is shared between center and state

UTGST: This is applicable on supplies within the territory of the nation and this tax is collected and hence shared with the union territory

PRE GST-OF EDUCATION

GST is a tax dependent on demand, i.e. the tax should be imposed by the state in which the products or services are purchased and not by the state in which those goods are made. IGST is structured to ensure that input tax credit flows seamlessly from one State to another. One state just has to negotiate with the government of the Center to resolve the tax amounts and not with any other entity. Let a dealer in Delhi sell products worth 20000 to the customer in Delhi for better understanding of the GST I give an example. If the GST rate is 18 percent, consisting of a 9 percent CGST rate and a 9 percent SGST rate, then in that case the dealer collects 3,600 and 1,800 will go to the Central Government and 1,800 to the Delhi Government. So, if the Delhi dealer had sold 2,00,000 worth of products to a dealer in Kolkata. When the IGST rate is 18 percent it includes a 9 percent CGST rate and a 9 percent SGST rate. For such a scenario, the dealer would have to bill as IGST 36,000 which will go to the Centre. The central government will pay the balance sum i.e. 18,000 to the concerned after maintaining its share (9 percent of '2,00,000 =' 18,000).

Post GST Tax Status of Educational Services

On view, a duty fee on instructive administrations in the 'Negative List' is not required. The 'Negative List' consists of Educational Administrations which are 'part' of the educational programs provided for to obtain a degree or qualification considered by the statute, part degree courses regulated by schools, colleges, or organizations to obtain a qualification approved by Law. This also requires Expertise Building Training. State, however, removed education from the negative list in 2016 even some of the sections were viewed the same way as before. In any case, services related to coaching or training which maintain instructive necessities were ordered independently of the category of education Because educational exercise-related programs provided by training and coaching foundations do not prompt to obtain genuinely considered credentials, tax relief will not be given.

The Education provided below are also exempted under GST

- National skill development corporation set up by the Indian government
- National skill development corporation approved sector skill councils
- National skill development corporation approved assessment agencies
- The national skill development programs approved by NSDC
- A vocational skill development program approved under national skill certification and monetary reward scheme
- Any scheme implemented by NSDC with training partners

Apart from the above, the educational training and coaching provided by coaching centers are not exempted under GST.

Following are not exempt from GST

- Supplies provided by third parties like the musical instrument, computers, sports equipment

- After school activities offered directly by third parties
- Food and accommodation supplied for the excursion as described above
- Uniform, stationery, and other non-academic related supplies

The school will not impose GST on the taxable supplies immediately but there might be some adjustment to the prices of school taxable supplies in the event the cost is higher to procure those supplies.

FEATURE AND NEED OF GST IN INDIA

1. GST applied to the scale of services and goods as against the past concept of tax on the manufacture of good
2. GST is a destination-based tax as against the past concept of origin-based tax and according to that it is been recorded
3. It is a dual processed tax that includes GST and SGST in a net sell and hence its goods features
4. It is a computerized basis of invoice credit methods which helps into the process sustainability
5. Customized bill format is possible to make under GST and hence the employment is increased
6. Each taxpayer would be given a pan liked taxpayer identification number with a total of thirteen or fourteen digit
7. Electronic tax filling now and then is become easy with the use of GST which has created the independency

OBJECTIVE

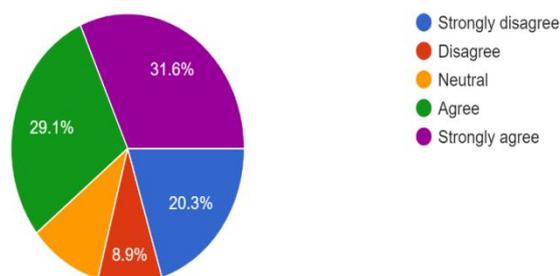
- To study the framework of indirect tax / GST in India
- To study the demographic people of the respondents
- To analyze the impact of GST on the education sector
- To study the perception/awareness of respondents towards GST
- To suggest recommendations based on findings

NEED FOR STUDY

In the last years of my career and education. I have seen my colleagues and faculties grappling with the taxation issue and complaining again the tax deducted by their employers from monthly remuneration not equipped with the proper knowledge of taxation and tax-saving avenues to them, they were at mercy of the HR/admin department which never bothered to do even as little as taking advice from some goods and service tax

RESEARCH

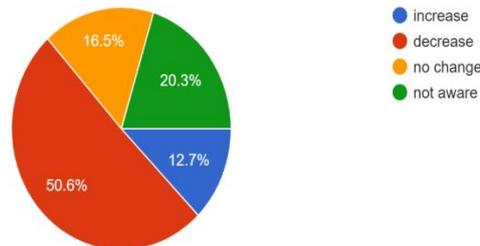
Goods and service have become cheaper after implementation of GST?
79 responses



From the above figure, it is observed that the majority of the respondents i.e 31.6% of the total respondents are strongly agree with the above statement followed by 29.1% of the respondents are agree that because of GST the goods and services become cheaper 20.3% of the respondents strongly disagree with the statements because GST goods and service become cheaper and only 8.9% of the respondents disagree with the above statement

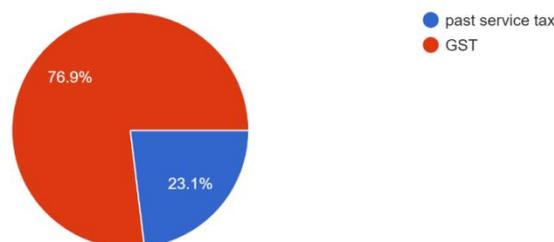
.and they saying that because of GST goods and service value grew up. And very few % of the response are natural.

what would be the probable impact of GST implementation on corruption?
79 responses



It is understood from the above figure majority of the respondents are we can say more than half % of response is agreed with the statements which are saying that GST reduces corruption. 12.7% of the total respondents said that because of GST corruption increases a big part of the students are not aware of the impact of GST on corruption & the is 20.3%. only a few % of the respondents I,e 16.5% of the response are said that there is no impact of GST on the corruption they said that there are no changes in the corruption neither it increase nor decrease

which type of indirect tax do you prefer in regards to education sectors?
78 responses



It is clear from the above figure that is the majority of the students I,e 76.9 % of the total respondents are prefer GST our past taxation I, e-service tax. And an only small part of response approx. 23.1% of the respondents follow that traditional method of taxation where they used to pay some service tax

CONCLUSIONS

Duty is constantly a worry for the people for more than one explanation. Some would prefer not to give a charge while others need to limit the sum to be paid. Last is lawful and is alluded to as assessment arranging. Duty arranging is not a basic and standard procedure. Truth be told it is an intricate assortment of measures accessible to decrease one's very own duty frequency. Further, the duty sparing alternatives or plans or findings given according to Income-Tax Act 1961 are gigantic in number which further confounds the procedure. Consequently, charge arranging has developed into a scholarly movement.

One of the approaches to design the duty occurrence for people is to put resources into certain roads where the government gives unwinding for different assessment plans. Be that as it may, this again isn't as straightforward as it might sound to be. Interests in these roads don't give a similar bit of leeway to every one of the people in a similar way. While some are appropriate for people paying higher assessments hardly any different suits individuals having a place with lower charge section. People are not constantly mindful of all the specialized insights concerning the plan which they decided for the venture. They may pick a specific plan for one advantage while being unmindful about different plans which furnish the same or better advantages with a better term

So what is significant here is to realize every one of the terms identified with a venture. Data is something which is forming the business and the world always in this century. More is the sum and nature of data better will be the choice quality. Without basic data, financial Specialists wind up making choices that yield potential

advantages for them. So with data comes mindfulness and with mindfulness comes a hunger for more data and data in the right arrangement at the opportune time with correct individuals guarantees quality basic leadership which triggers an idealistic.

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YOUTH AND COVID-19: RESPONSE DURING HORRIBLE CONDITION.**Dr. Jyothi Brijendra Yadav**

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ABSTRACT

The COVID-19 global health emergency and its economic and social impacts have disrupted nearly all aspects of life for all groups in society. People of different ages are experiencing its effects in different level.

For young people, and youth, the COVID-19 crisis considerable risks in the fields of education, employment, mental health and disposable income. Moreover, while youth and future generations, their well-being may be superseded by short-term economic and equity considerations.

Based on survey findings from 90 youth organization's this policy brief outlines practical measures governments can take to design inclusive and fair recovery measures that leave no one behind.

Key Message:

- *Updating national youth strategies in collaboration with youth stakeholders to translate political commitment into actionable programmes.*
- *Make rule and the allocation of public resources across different age by using impact assessments and creating or strengthening institutions to monitor the consequences on today's young and future generations.*
- *Promoting age diversity in public consultations and state institutions to reflect the needs and concerns of different age cohorts in decision-making.*
- *Providing targeted policies and services for the most youth populations, including young people not in employment, education or training (NEETs); young migrants; homeless youth; and young women, adolescents and children facing increased risks of domestic violence.*

INTRODUCTION

The COVID-19 pandemic is disrupting every aspect of people's lives in an different manner. While many of its implications, such as confinement-related psychological distress and social distancing measures, affect all of society, different age groups experience these impacts in distinct ways. An inclusive response to and recovery from the crisis requires an integrated approach to public governance that anticipates the impact of response and recovery measures across different age "Building better" requires decision makers to acknowledge generational divides and address them decisively in order to leave no one behind.

Governments must therefore seek to anticipate the impact of mitigation and recovery measures both within and across different age cohorts to avoid widening inequalities.

Economic and health impacts of the COVID-19 pandemic have been asymmetric across age groups. Current evidence suggests that young people are less at-risk in terms of developing severe physical health symptoms linked to COVID-19 than older age cohorts (WHO, 2020. Elements for an integrated public governance approach for a fair and inclusive recovery and resilience.

The role of young people as catalysts of inclusive and resilient societies in crisis response, recovery, and in preparation of future shocks.

1. The impact of COVID-19 on young people and vulnerable groups**Young people express concerns about the toll on mental health, employment, disposable income and education**

In this context, youth organisations expressed greatest concern about the impact of COVID-19 on mental well-being, employment, income loss, disruptions to education, familial relations and friendships, as well as a limitation to individual freedoms.

Employment and disposable income

Low-paid and temporary employment in sectors most severely affected by the crisis (e.g. restaurants, hotels and gig industry) are often held by young people, who are now facing a higher risk of job and income loss. 35% of young people (aged 15-29) are employed in low-paid and insecure jobs on average across OECD, compared to 15% of middle-aged employees (30-50) and 16% of older workers (aged 51 and above)

Disruptions in Access to Education

The closure of schools and universities has affected more than 1.5 billion children and youth worldwide and has significantly changed how youth and children live and learn during the pandemic. Some of the innovative teaching and learning tools and delivery systems schools and teachers experimented with in response to the crisis may have a long-lasting impact on education systems

Toll on Mental Health

The findings from the survey also confirm significant psychological impacts of social distancing and quarantine measures on young people causing stress, anxiety and loneliness.

The closure of schools affects students' mental well-being as teachers and classmates can provide social and emotional support. Education professionals also play an important role in helping detect and report abuse against children.

The impact of the crisis on the psycho-social and subjective well-being of young people also depends on the household they live in and individual circumstances such as prospects of job and income losses; housing quality; the illness or loss of loved ones; and the presence of existing medical conditions and vulnerable persons in the household.

Prospects for Future Well-Being, International Co-Operation and Solidarity are Major Concerns in The Long-Run

When asked about the long-term implications of the COVID-19 pandemic, surveyed youth-led organisations. This was followed by negative prospects for international co-operation, the well-being of youth, the spread of disinformation (fake news), and increasing levels of public debt and racial discrimination and, to a somewhat lesser extent, intergenerational solidarity. A similar picture emerges when the views of youth-led organisations in non-OECD countries are considered

2. Governance responses to build back better and deliver for all generations**Trust in governments and their response to the pandemic**

Despite a gradual lifting of confinement measures across most OECD countries recently, changes in everyday behaviour will still be crucial in the coming months to avoid new waves of infections. Building trust among young people remains crucial to create buy-in and determine the success of response and recovery measures in the long-term.

Youth organisations have expressed higher (or unchanged) levels of trust in government, this varies significantly across countries. For instance, while 40% of youth organisations based in OECD countries reported an increase in trust, the figure was 55% for those based in non-OECD countries (Figure 6). The figure also shows that trust in government did not change for 38% of youth organisations in OECD countries, neither positively nor negatively.

Mobilising young volunteers and youth workers

Around the world, young people have stepped up to mitigate the impact of the COVID-19 crisis. Governments have also promoted youth volunteering at this critical time through dedicated programmes.

Public governance for a fair recovery and resilience

Government plans and strategies to recover from the COVID-19 pandemic will mobilise considerable resources, while also creating long-lasting effects on society and the economy (see Section 1). In this context, governments have the opportunity to "build back better" from the crisis and reinforce trust by ensuring that recovery plans not only address the fallouts of the crisis, but also take into account the well-being of current and future generations.

The rule making function and fiscal and budgetary measures are powerful levers at the disposal of governments to ensure no-one is left behind.

3. Youth as catalysts of inclusive and resilient societies**Youth organisations and their role in mitigating the disruptions of the crisis**

Youth organisations have swiftly stepped in to disseminate information among their peers and help contain the spread of the virus. They also provided access to educational, peer-to-peer mental health advice and other programmes to support adolescents and young adults in confinement. New initiatives have focused on providing support to the elderly and other groups at increased risk of becoming infected, and by combatting stigma and discrimination (Figure 9). These initiatives have been crucial to mitigate the closure of schools and support services, addressing loneliness and anxiety, and promoting social cohesion.

Brick by brick: Partnerships between youth and governments in recovery measures

Youth-led organisations have also been active in building for recovery, sometimes in partnership with government. For instance, the Finnish National Youth Council published “7 goals to keep young people involved” (2020[61]) to strengthen the youth sector by ensuring health services for all ages, training and employment support on a temporary basis. The Finnish Council has also organised online press briefings targeting government officials to inform them on how to best support youth-led organisations amid the crisis (2020[61]).

Preparing for future shocks: Strengthening resilience and antifragility measures with youth

Young people born between 1990 and 2005 have already experienced two major global shocks within the first 15-30 years of their life – the financial crisis 2008/09 and the COVID-19 pandemic, that either affected them directly (for example, as a student or job seeker) or indirectly (e.g. through the repercussions of the crises on their family). The exposure to such shocks has long-lasting consequences for their access to decent employment, health and other dimensions of well-being and the opportunities ahead. Strengthening the resilience and anti-fragility of public institutions and governments against future shocks is crucial to ensure the well-being of today’s young and future generations. Already prior to the COVID-19 pandemic, young people have been at the forefront of calls for a longer-term perspective in policy making and in building more inclusive and sustainable societies, for instance through a transition to greener economies.

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INCREASING DEMAND OF CYBER SECURITY IN INDIA

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1. ABSTRACT

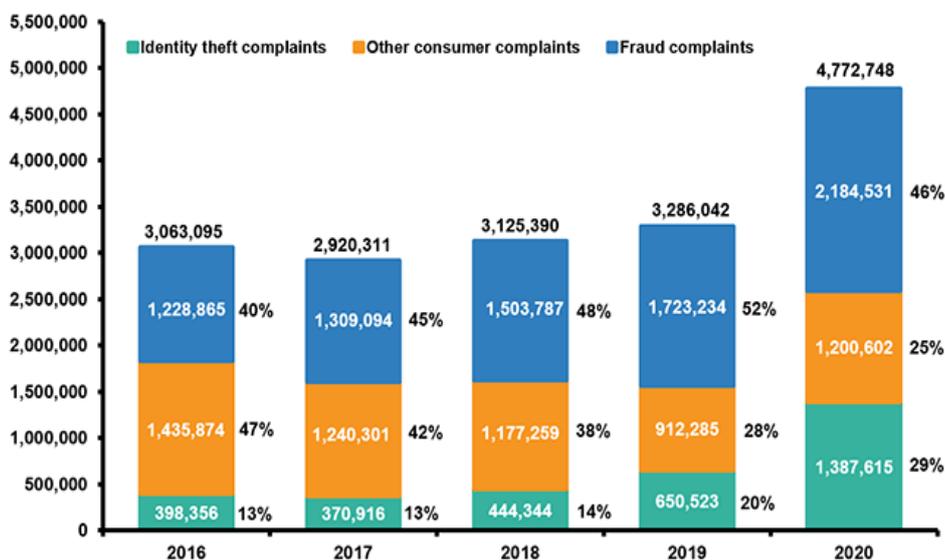
In the present day, cyber security has strengthened into a complicated and fast-moving security concern. Today's technology has improved to the point where we can communicate with friends all over the world in a matter of seconds, and pay bills with the press of a button. Though the advantages are numerous, one must also evaluate or consider the difficulties and dangers. According to research, more than half of all online users are victims of some form of cyber crime each year, which includes computer viruses, malware, credit card fraud, online scams, phishing, and identity theft. As the world's reliance on technology grows, cyber threats appear likely to infiltrate every nook and cranny of national economies and infrastructure; indeed, the growing reliance on computers and Internet-based networking has been accompanied by an increase in cyber attack incidents targeting individuals, businesses, and governments. Meanwhile, some governments are increasingly viewing technology as both a strategic asset to be used for national security and a battlefield on which strategic wars might be fought. This report investigates the looming demand for cyber security in India.

Keywords: Cyber Security, Demand of Cyber Security, Trends in Cyber Security, Risks and Needs Cyber Security

2. INTRODUCTION TO CYBER SECURITY:

Security is a crucial term in the study of international relations. Until recently, security analysis was primarily concerned with state security, considering it as a function of dangers that states confront from other states, as well as the method and efficacy with which states respond to such threats. However, following the Cold War's end, researchers switched their focus away from the state-centric conception of security, broadening the concept to include individual safety (Buzan 1991). Around the same period, the nature of threats shifted from external aggression to intra-state conflicts caused by civil wars, environmental degradation, economic suffering, and human rights violations. Finally, the modern Information, Communication, and Technology revolution — which includes the Internet, email, social media, and satellite communications — has transformed every element of human life, creating new threats to national security.

In 2009, illicit money transfers outnumbered physical theft in bank branches in the United States. Crimes have increased by 60% per year, with 3500 incidents reported in 2012 and 2070 in 2011. According to a report from the National Crime Records Bureau (NCRS), in the year 2012, Maharashtra reported 561 cases, Andhra 454 cases, and Karnataka 437 cases of crimes committed by those aged 18 to 30. Haryana confirmed three cases in 2011, but 116 in 2012, a significant increase. In comparison to other crimes, cybercrime requires less expenditure and can be committed in a variety of locations. These crimes arise from a variety of sources and exhibit socio-educational/economic and technological aspects, including addiction, economic crimes, money laundering, child pornography, sexual exploitation, drug trafficking, human trafficking, terrorism, fraud, and so on.



3. WHAT EXACTLY IS CYBER SECURITY?

Cyber security also referred to as information technology security or electronic information security is the process of protecting servers, computers, mobile devices, networks, data, and electronic systems from harmful attacks. This word encompasses both business and mobile computing and has a few common subcategories, such as -

- **Network Security** –Network security protects computer networks from malicious software or attackers.
- **End user education** – By failing to follow safe security practises, users can unintentionally introduce a virus. Users must be taught not to use unidentified USB devices, not to open suspicious attachments, not to delete suspicious mail, and to follow a variety of other safe practises.
- **Application security** – The main goal of application security is to keep devices and software safe. A compromised application can be extremely dangerous to the data it is supposed to protect. For a system to remain secure, security must be implemented from the start.
- **Information security**- This feature safeguards the privacy and integrity of data while in transit and storage..
- **Operational security** – Operational security is critical in managing and safeguarding digital assets..
- **Disaster recovery and business continuity** – This is a test of an organization's ability to respond to a cyber security incident or other comparable event that could result in data or operational loss. Business continuity refers to the ability of an organisation to return to its previous status prior to a cyber-attack, even if just a few resources are available. How can it re-establish its information and functioning capacity?
- **Identity Theft**: When someone steals your personal information in order to commit fraud, this is known as identity theft. An identity thief could use your information to apply for credit, file taxes, or obtain medical care. These behaviours can negatively impact your credit score and cost you time and money to correct.

4. BACKGROUND OF CYBER SECURITY IN INDIA

In the Indian context, officials have paid comparatively little attention to cyber security, to the point where the government has been unable to address the country's rising demand for a powerful cyber security infrastructure. In brief, India lacks strong offensive and defensive cyber security skills, which is aggravated by a lack of access to critical mechanisms for dealing with complex malware such as Stuxnet, Flame, and Black Shades.

Furthermore, as compared to other developed countries, India has considerably less cyber security projects and activities. Many of the key projects planned by the Indian government have merely been offered on paper. Furthermore, approved projects such as India's National Critical Information Infrastructure Protection Centre (NCIPC) and National Cyber Coordination Centre (NCCC) have yet to materialise. Worse, India's National Cyber Security Policy has failed to provide positive outcomes, as its execution appears to be lacking in a variety of areas, including privacy violations in general and encroachment into civil rights in particular.

The government, for its part, has fostered greater adoption of IT-enabled services and programmes, such as the Unique Identification Development Authority of India (UIDAI) and National e-Governance Programs (NeGP), by building a large-scale IT infrastructure and encouraging business participation. Critical sectors such as defence, banking, energy, telecommunications, transportation, and other public agencies rely significantly on computer networks to relay data for commercial transactions as well as a source of information and communication. To date, the government has ambitious goals to expand ecommerce services, cyber connectivity, and overall IT use in communications.

The Indian Ministry of Communications and Information Technology proposed the National Cyber security Policy in March 2011, with an emphasis on critical infrastructure security and protection, development activities, and public-private collaborations (DEITY 2012). Under the aegis of the National Security Council, a proposal to establish the National Critical Information Infrastructure Protection Centre in accordance with the draught policy was established in June 2012. (Under the National Technical Research Organisation). The goal was to secure the state's essential infrastructure in collaboration with national and sector-specific Computer Emergency Response Teams (CERTs).

5. CHALLENGES IN CYBER SECURITY

Cyber security has been identified as one of the most critical national security issues. According to reports, President Obama promised during his presidential campaign to "make cyber security the top priority that it

should be in the twenty-first century... and designate a National Cyber Advisor who will report directly" to the President.

Cyber security must address not just planned attacks, such as those perpetrated by disgruntled workers, industrial espionage, and terrorists, but also inadvertent compromises of the information infrastructure caused by user error, device failure, and natural catastrophes. Vulnerabilities may allow an attacker to penetrate a network, get access to control software, and change load circumstances to destabilise a network in unexpected ways.

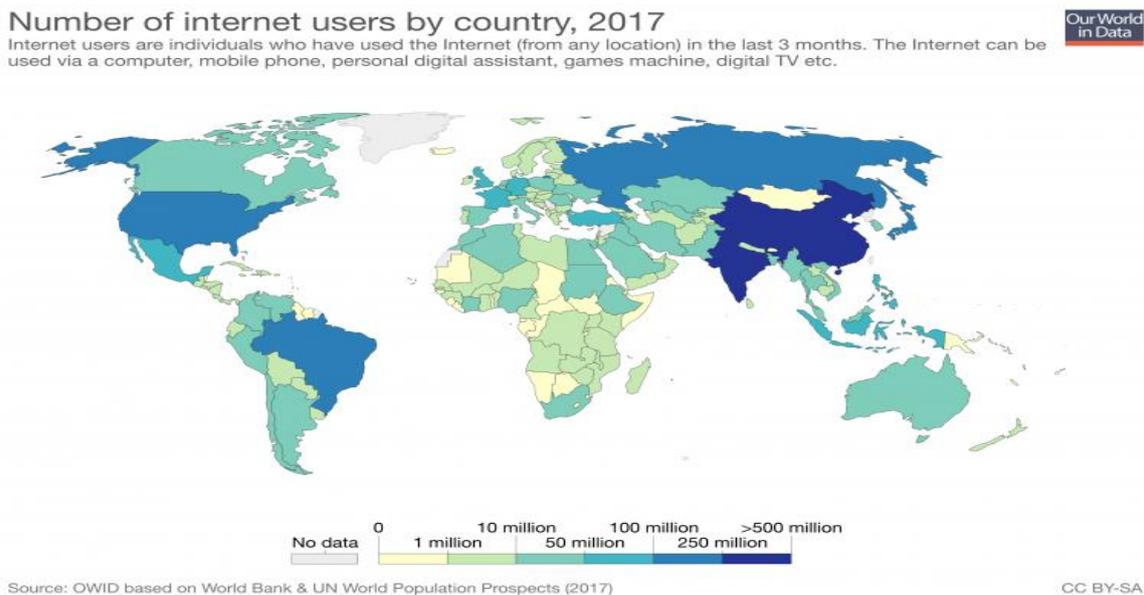
Defense of cyberspace necessitates the formation of effective partnerships between public organisations charged with ensuring cyberspace security and those who manage the use of this space by a diverse range of users such as government departments, banks, infrastructure, manufacturing and service enterprises, and individual citizens. Cyberspace defence has a unique feature. The national territory or space that the land, sea, and air military defend is firmly defined. Outer space and cyberspace are not the same thing. Even from the standpoint of national interest, they are intrinsically transnational.

6. NEED OF CYBER SECURITY IN INDIA

In India, 9.4 percent of households have a computer (any of Laptop or Desktop). Chandigarh (U/T), Goa, and the NCT of Delhi are the top three states/union territories in terms of computer usage.

According to the 2011 Census, only 3.1 percent of all residences in India have Internet connectivity. The census covered 24,66,92,667 (246.7 million) dwellings in India and discovered that just 76,47,473 (3.1 percent) of these houses utilise the Internet. The Internet contains both high-speed and low-speed connections.

According to Internet World Stats, there were 2.4 billion internet users (2,405,510,175) globally on June 30, 2012. China had the most internet users, with over 538 million .



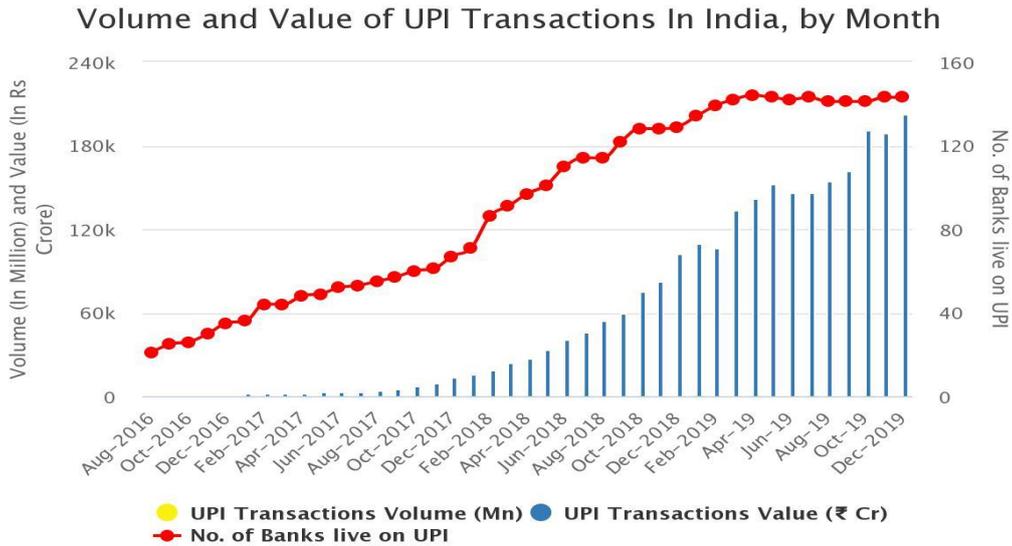
The above graph shows total number of Internet users across the globe at year 2017.

According to a CLSA research, the value of digital payments in India will triple to \$1 trillion by fiscal year 2026, up from \$300 billion in fiscal year 2021, thanks to the government's initiative to enhance financial access by integrating no-fee bank accounts, the Aadhaar card, and mobile connection.

"UPI accounts for 60% of all payments, and digital payments have increased from \$61 billion in the FY16 to \$300 billion in the FY21. Given rising online purchases and digital adoption, we predict this to reach US\$0.9-1trillion by FY26, accounting for 30% of Indian consumption, according to a report.

It took four years for the value of monthly UPI transactions to exceed the Rs 3-lakh-crore milestone in September 2020, from its launch in 2016.

With all of these figures, India, as a rapidly rising country, particularly in the sector of information technologies and e-commerce, is on high alert for security for its online channels in order to watch for fraud and financial losses.



© Dazeinfo / Data Source: NPCI

7. TRENDS CHANGING OVER CYBER SECURITY

Mentioned below are some of the trends that are having a big impact on cyber security.

7.1 Web Servers

The threat of web application assaults to extract data or deliver harmful code remains. Cybercriminals deliver malicious code through genuine web servers that they have compromised. However, data-stealing assaults, many of which garner public attention, pose a significant hazard. We must now place a higher emphasis on protecting web servers and web applications. Web servers, in particular, provide the finest platform for these cyber thieves to steal data. As a result, in order to avoid being a victim of these crimes, one should constantly use a safer browser, especially during critical transactions.

7.2 Cloud Computing and it’s services

Cloud services are being gradually used by all small, medium, and large businesses these days. In other words, the world is gradually approaching the clouds. This latest trend poses a significant problem for cyber security because communications can bypass established sites of inspection. Furthermore, as the number of cloud-based apps rises, policy controls for web applications and cloud services will need to change in order to prevent the loss of vital data. Despite the fact that cloud services are building their own models, several concerns have been raised concerning their security. Although the cloud offers numerous advantages, it should be emphasised that as the cloud evolves, so do its security issues.

7.3 APT’s and Targeted Attacks

APT (Advanced Persistent Threat) is a completely new level of cybercrime software. For many years, network security features such as web filtering or intrusion prevention systems (IPS) have played an important role in detecting such targeted attacks (usually after the initial penetration). As attackers get more daring and deploy more evasive strategies, network security must connect with other security services to detect attacks. As a result, we must upgrade our security measures in order to prevent future threats.

7.4 Mobile Networks

Today, we can communicate with anyone, anywhere in the globe. However, security is a major worry for these mobile networks. Firewalls and other security protections are getting more permeable as people utilise devices such as tablets, phones, PCs, and so on, all of which require additional safeguards in addition to those provided by the programmes used. We must continuously consider the security of these mobile networks. Furthermore, because mobile networks are so vulnerable to cybercrime, extreme caution must be exercised in the event of a security breach.

7.5 IPV6: New Internet Protocol

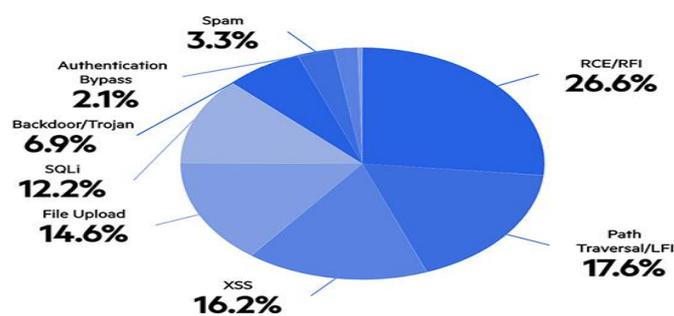
IPv6 is the new Internet protocol that is replacing IPv4 (the previous version), which has served as the backbone of our networks and the Internet in general. It is not enough to just port IPv4 capabilities to protect IPv6. While IPv6 is a complete replacement in terms of increasing the number of available IP addresses, there are certain basic modifications to the protocol that must be considered in security policy. As a result, it is always preferable to convert to IPv6 as soon as feasible in order to avoid the dangers associated with cybercrime.

7.6 Encryption of Code

Encryption is the technique of encrypting communications (or information) in such a way that it cannot be read by eavesdroppers or hackers. An encryption technique encrypts a message or information using an encryption algorithm, resulting in unreadable cypher text. This is normally accomplished through the use of an encryption key, which specifies how the message should be encoded. Encryption safeguards data privacy and integrity from the start. However, increased encryption use creates new cyber security challenges. Encryption is also used to safeguard data in transit, such as data exchanged across networks (such as the Internet or ecommerce), mobile phones, wireless microphones, wireless intercoms, and so on. As a result, by encrypting the code, one may determine whether or not information is being leaked.

Hence, above are some of the trends changing the face of cyber security in the world. The top network threats are mentioned as below.

Cyber Attack Types
Breakdown of attack attempts seen in our network, split by attack types.



The above pie chart shows about the major threats for networks and cyber security.

8. INDIA TO HAVE MORE THAN 15 LAKH UNFULFILLED JOBS IN CYBER SECURITY BY 2025

The cyber security profession is now experiencing a 43% talent deficit, with the most in-demand skills in Asia Pacific, Data Privacy and Security. By 2025, India is estimated to have over 15 Lakh unfilled job vacancies in the field.

“As companies continue to emphasise on cyber security and heightened employee awareness, the focus on cyber security has increased more. However there seems to be a huge supply and demand gap, this has led to an huge increase in hiring for available positions on permanent or contractual basis. The demand for roles such as Security Engineers, Cyber security Analysts and Forensics Experts are on the rise. India is expected to have over 15 Lakh unfilled job in cyber security field by 2025.

9. FEW WOMEN IN CYBER SECURITY JOBS

With cybercrime on the rise since the pandemic, there has been a significant increase in demand for cyber-related talent. Since the pandemic began, there has been a 25% increase in demand for talent in cyberspace on an annualised basis. According to industry experts, there is a war for talent in this market, and India is predicted to have over 1.5 million unfilled cyber security job vacancies by 2025, according to Team Lease Services. However, even as organisations scurry to fill vacancies, often from engineering colleges, a significant piece of the pie is missing: women.

Currently, the proportion of women in cyberspace is extremely low. Rituparna Chakraborty, co-founder and executive VP of Team Lease Services, stated that India's cyber security market is rapidly expanding, and there is a high demand for skilled people in this field. However, she claims that the prediction for women is only about 11% of the sector's workforce by 2025.

It turns out that organisations are hunting for talent in places where there aren't a lot of female candidates, namely engineering schools. Because of the rapid pace of change in cyberspace, some organisations are considering diversity hiring from graduate schools. Given the rate at which cybercrime is increasing, they believe diversity is necessary to handle complex cyber concerns.

Because of the way cyber is changing, no matter how skilled a person is at the start, they will need to be constantly reskilled and up skilled. That is why diverse applicants are being pushed to enter this field.

10. CYBER SECURITY INITIATIVES IN INDIA

ISO 27001 (ISO27001) is the international Cyber security Standard that provides a model for establishing, implementing, operating, monitoring, reviewing, maintaining, and improving an Information Security Management System.

10.1 India's legal framework for cyber security.

1. **Indian IT Act, 2000** Section 65 - Tampering with computer source code, Section 66 - Hacking & computer offences, Section 43 – Tampering of electronic records
2. **Indian Copyright Act** States any person who knowingly makes use of an illegal copy of computer program shall be punishable. Computer programs have copy right protection, but no patent protection.
3. **Indian Penal Code** Section 406 - Punishment for criminal breach of trust and Section 420 - Cheating and dishonestly inducing delivery of property^[6].
4. **Indian Contract Act, 1872** Offers following remedies in case of breach of contract, Damages and Specific performance of the contract

10.2 Other Indian Government Initiatives

The Indian government released the National Cyber Security Policy on July 2, 2013. This policy addresses the growth of information technology, increasing the number of cyber crimes, plans for social transformation^[6]. It has 14 objectives which includes enhancing the protection of India's Critical infrastructure to investigation and prosecution of cyber crime, developing 50,000 skilled cyber security professionals in next five years.

- **Cyber Security Research And Development Centre Of India (CSRDCI)** - On July 2, 2013, the Indian government issued the National Cyber Security Policy. This strategy addresses the advancement of information technology, the rise of cybercrime, and goals for societal reform. It has 14 goals, including improving the safety of India's critical infrastructure, investigating and prosecuting cybercrime, and producing 50,000 qualified cyber security experts over the next five years.
- **Cyber Crimes Investigation Centre Of India** - The Cyber Crime Investigation Centre of India (CCICI) is India's exclusive Techno Legal Cyber and Hi-Tech Crimes Investigation and Training Centre (CHCIT). The goal of CCICI is to raise Cyber Law and Cyber Security Awareness in India and around the world. Furthermore, the CCICI wants to build Cyber Crimes Investigation Capabilities and Expertise in India and internationally.
- **National Intelligence Grid (NATGRID)** - This Indian Project is one of the most ambitious Intelligence Gathering Projects in the country. It was released at a time when India's intelligence infrastructure was in disarray. It is a necessary prerequisite for India's Intelligence Agencies and Law Enforcement duties to be strong and effective.
- **National Critical Information Infrastructure Protection Centre (NCIPC) Of India** - intends to ensure critical infrastructure protection and critical ICT infrastructure protection in India.
- **National Cyber Security Database of India (NCSDI)** - This Database would be used to combat Cyber Threats and Cyber Attacks such as Cyber Terrorism Against India, Cyber Warfare Against India, Cyber Espionage Against India, Critical Infrastructure Protection in India, Managing India's Cyber Security Problems, Issues, and Challenges, and so on.

10.3 Indian Government Initiatives for Education on Cyber Security

Information security awareness – This is launched over a five years period. One of the objectives is to create awareness about information security to children, home users and non-IT professionals in a systematic way. C-DAC Hyderabad has been assigned this project.

Information security education and awareness project- Objectives are to train System Administrators by offering Diploma Course in Information Security, Certificate Course in Information Security, 6-weeks/2-weeks training programme in Information Security, train Government Officers of Center and State on Information Security issues and Education Exchange Programme

National Initiative for Cyber security Education (NICE) - The goal of NICE is to establish an operational, sustainable and continually improving cyber security education program for the nation to use sound cyber practices that will enhance the nation's security^[15].

10.4 Top colleges which offer cyber security course in India^[17]

- Indian Institute of Information Technology - Allahabad, Uttar Pradesh Master of Science in Cyber Law and Information Security
- The Indian Institute of Information Technology Allahabad - Allahabad, Uttar Pradesh Master of Science in Cyber Law and Information Security
- Institute of Management and Technology - Ghaziabad, Uttar Pradesh MS in Cyber Law and Security Post Graduate Diploma in Cyber Security
- Amrita School of Engineering - Coimbatore, Tamil Nadu Master of Technology- Cyber Security
- Amity University - Noida, Uttar Pradesh M.Tech - Information Security & Cyber Forensics
- Faridabad Institute Of Management Studies - Faridabad, Haryana Post Graduate Diploma in Cyber Security
- Institute of Management Technology - Ghaziabad, Uttar Pradesh Post-Graduate Diploma in Cyber Security
- Sarvodaya Law College - Bangalore, Karnataka Post Graduate Diploma in Cyber Law and Information Technology

CONCLUSIONS

Because of the rapid rise of e-commerce, internet or cyber security has become a key concern in developing countries such as India. According to a recent poll published in TOI, India would require 15 lakh Cybersecurity Experts by 2025 to support its rapidly increasing digital economy, according to an estimate by the Union Ministry of Information Technology. The financial sector alone is likely to hire nearly 6 lakh workers, with the rest going to telecoms, utility sectors, power, oil & gas, airlines, and the government (law & order and e-governance). According to employment news, ethical hackers can work as network security administrators, network defence analysts, web security administrators, application security testers, security analysts, forensic analysts, penetration testers, and security auditors based on their academic background and work experience.

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THE FUTURE OF ROBOTICS, SMART MATERIAL AND THEIR IMPACT ON HUMAN BEINGS**Mr. Kshitijkumar Lalankumar Jha**Faculty, Mathematics Department, Shree L. R. Tiwari Degree College of Arts, Commerce and Science,
Mira Road (East), Thane, Maharashtra**ABSTRACT**

Industrial process were accelerated and widely adopted during the nineteenth century. The industrial revolution was in full flow at the turn of century and by the end, we had invented the car and were on the verge of demonstrating powered flight. Human lives were forever changed when social and economic laws governing travel, healthcare, manufacturing and health care. This process was replicated in the twentieth century with the Technology revolution at a far faster pace. From the laboratory and research centre to the home, technology has progressed. Electronics, telecommunications, automation and calculations, rather than the mechanical systems of the previous century, were the driving forces. Consumers electronic and the electric car business have contributed the creation of millions of new jobs in the robotics industry over the previous decade, and by 2020, robotics will be valued \$100 billion. Robotics will become important components in a variety of application during the next decade, and robotics linked with AI will be able to conduct complicated activities while learning from people, propelling the intelligent automation phenomena. As a result, researcher in this work tries to outline the direction and application fields of robotics and smart materials that have an impact on human existence.

Keywords: Robotics, Healthcare Robotics, Service Robotics, AI Robotics, Eco-Robotics, Industrial Revolution 4.0.

INTRODUCTION

Robot is a machine that imitates a human. A Robot is a machine- especially one programmable by a computer – capable of carrying out complex series of action automatically. A robot can be guided by an external control device, or the control may be embed within (Source: Wikipedia.org).

Regardless of how much these robots pique our interest; they remain the stuff of science fiction. People have not yet figured out how to give robot enough ‘common sense’ to dependably deal with a changing environment.

Robots that conduct labour that is too risky, dull, onerous, or just plain nasty are the type of robots you will encounter most frequently. This is the type of robot that makes up the majority of the world's robots. They work in the automotive, medical, manufacturing, and space industries, among others. Robots are increasingly prominent in our daily lives, from vacuum cleaners and lawnmower to military landmine detectors.

REVIEW OF LITERATURE:

- 1. Advancements in Robotics and Its future uses, Tennyson Samuel John, pg. no: 5-6:** The future of robotics is bright. But how will robots affect future generations? Sometimes you can get ideas from the future by looking into the past and thinking about the changes we have seen as a result of great inventions, like the cotton gin, airplane or internet. Perhaps one day we will have true robotics “helpers” that guide the blind, assist the elderly. May be they will be modular devices that can switch from lawn mower to vacuum cleaner, to dish washer and window washer.
- 2. Robotics and Artificial Intelligence, Estifanos Tilahun Mihret, Mettu University, Ethiopia, pg. no:** Robotics and AI are playing an increasingly important role in the world’s economy and its future growth. We need to be open and fully prepared that they bring to our society and their impact on the workforce structure and a shift in the skill base. Strong national level engagement is essential to ensure that general public has a clear and factual view of the current and future development of robotics and AI.
- 3. Frontiers:** The media said that in pandemic (Covid-19) Robotics and Artificial Intelligence assisted in patient detection, diagnosis and delivery, which was a huge benefit to doctors and health care employee. As a result, in the future, robotics and artificial intelligence will be integral element of the medical system.

AIM OF THE STUDY:

1. To Study the impact of Robotics in Human activities or their life style
2. To find the application of robotics and smart material which directly or indirectly affect to human lifestyle.
3. To identify futuristic approach of robotics industry.

OBJECTIVE OF THE STUDY:

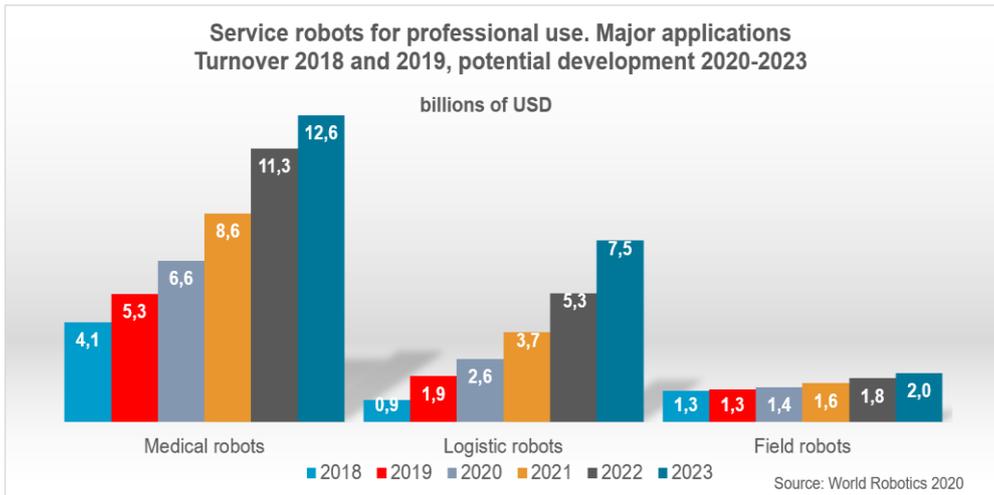
1. To understand the importance of smart material and robotics & how robotics can affect the growth of any country in economics point of view.
2. To obtain the futuristic approach of Robotics in Industry, medical, education & service sectors etc.

METHODOLOGY:

Research paper is completely based on secondary source of data from various authenticated government and non-government agencies/websites.

DATA ANALYSIS AND INTERPRETATION:

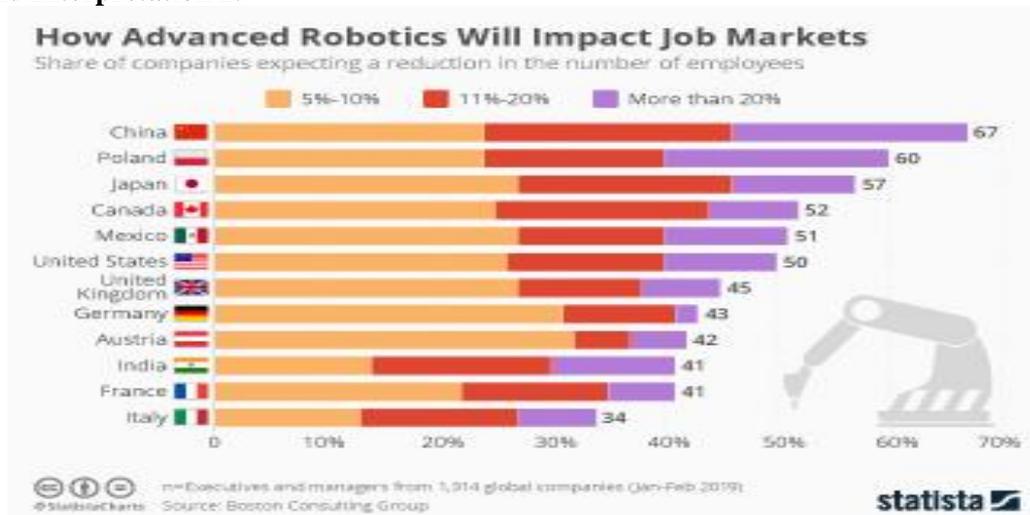
Analysis and Interpretation 1:



(Image 01 – Source: International Federation of robotics)

From (Image – 01) the Histogram it’s easy to understand that from 2018 to 2023 (projected) there is consistent increasing in market demand in Medical robots, Logistic robots & Field robots.

Analysis and Interpretation 2:



(Image 02 – Source: Statista)

Advanced robotics impact on Job markets

From image (Image 02) it is clear that China is far ahead in Robots automation, and having good shares in robotics market, followed by Poland, Japan and other countries. It indicates that Robotics has good opportunity in future if we combined IOT and machine learning along with it.

ROBOTICS FIELDS

At the moment, the number of robotics field is practically uncountable, because robot technology is used in so many fields that no one can keep track of them all. Here are some evident fields of applications

- **Healthcare Robotics:** Robotics utilised in patient monitoring/ evaluation, medical supply delivery and aiding healthcare personnel in unique capacities.
- **Medical and Surgery Robotics:** These devices are primarily utilised in hospitals to assist with surgery because they allow for high precision and minimal invasive treatments.
- **Wearable Robotics:** Allow users to increase their physical power, making it easier for people with disabilities to walk and climb stairs.
- **Industrial:** Arms, grippers and all warehouse robotics utilised for industrial process automation. They are utilised to save money as well as speed up production.
- **Military Robotics:** Drone, navigators, researchers, warriors and any other robotics extensions that could be used in espionage and combat operations.
- **Underwater, flying and self-driving machines:** Machines that can travel underwater, fly and driven themselves. All robotics that deal with self-piloting in any situations, on the land, in the air, or in the water.
- **Space robots:** all robotics employed in space missions are highly resistant, skilled in exploration, and capable of collecting material data.
- **Entertainment:** Children's toys, games, and interactive robotics.
- **Robotics network:** Robotic networks evolve, allowing robots to connect to databases, share data, and learn from one another's experiences.
- **Modular Robotics:** Modular Robotics is a term used to describe a type of robotics that Robots that can self-organize into pre-determined patterns to complete specified tasks.

ROBOTICS IN INDIA'S POLICIES:

According to the International Federation of Robots, China leads the world in robotics sales with a share of almost 40%. South Korea, Japan and the United States are ranked second, third and fourth respectively.

India enterprises have gotten a leg up on their Chinese competitors in two areas: Information technology and generic pharmaceuticals. Robotics was listed as focal issue in the Indian economy survey, along with block chain, AI and futuristic technologies. It is predicted that robotics would have special place under '**Industrial Revolution 4.0**'.

ROBOTIZATION IN INDIA:

1. In its new manufacturing unit in Noida, Samsung is employing around 80 Epson robots.
2. ICICI bank has employed robots to sort cash notes in 14-15 locations across India.
3. Suparna Plastic Ltd., a Bangalore-based SME that makes plastic ball valves, uses SCARA (Selective Compliance Assembly Robot arm) robots in the assembly process because of high speed and accuracy they provide.
4. **MITRA**, the world's first indigenously created humanoid robot, can intelligently communicate with people. It was inaugurated at the Global Entrepreneurship Summit (GES) conference in 2018 by Prime Minister Narendra Modi and Ivanka Trump, First Daughter and counsellor to US President Donald Trump. It can be observed conversing with customers in the halls of the Canara Bank and PVR Cinemas in Bengaluru.
5. **ROBOCOP** is a police robot that has been deployed in Hyderabad to help with law enforcement and traffic control. It is designed to defend and secure venues such as offices, malls, airports, signal posts, and other public spaces, and when installed autonomously, it can provide security. It can also detonate bombs
6. **IRA (Intelligent Robotic Assistant)** is a gleaming white interactive humanoid that was unveiled in Mumbai in 2018 to assist bank branch workers in customer service.
7. **INDRO-** According to reports, this is India's tallest humanoid robot. It's a self-contained robot created from readily available low-cost materials such as aluminium, wood, cardboard, and plastic. It is suitable for light tasks such as entertainment, education, and a few household chores.

THE FUTURE OF ROBOTICS

According to projections, the global stock of robots might reach 20 million by 2030, with automated labour displacing up to 51 million people in the next decade. While robots are unlikely to take over the world, we may expect to see more of them in our everyday lives.

Automation and robots, according to a McKinsey analysis, will cause a revolution in the way we work. According to their estimate, activities requiring mostly physical and manual abilities will decrease by 18% by 2030, while those needing basic cognitive skills will decrease by 28%. (Source: Media Report)

Workers will require technical abilities, and those with competence in STEM (Science, Technology, and Engineering & Mathematics) fields will be in even greater demand. Similarly, many jobs will require socioemotional abilities, especially those that cannot be replaced by machines, such as caring for others and teaching.

Robots may potentially become a more fundamental part of our daily lives. Many routine jobs in our homes, such as cooking and cleaning, may be completely automated. Similarly, with robots that can employ computer vision and natural language processing, we may see machines that can interact with the world more, such as self-driving cars and digital assistants.

The future of medicine may be shaped by robotics as well. Surgical robots can do incredibly accurate operations, and with developments in artificial intelligence, they may be able to undertake surgeries on their own in the future.

Machines and robots with the ability to learn could have an even wider range of uses. Robots that can adapt to their surroundings, learn new processes, and change their behaviour in the future will be better suited to more complex and dynamic tasks.

CONCLUSION

1. Robotics has flourished in the previous two decades, both in terms of research and applications. It has infiltrated people's imaginations and nearly all current markets, to the point that, on the one hand, we can notice robotics news every day and, on the other hand, robotics is about to attain a market share of 100%.
2. Automation and robots have a bright future in India. There are numerous employment openings. Laboratories, manufacturing facilities, mining, medical disciplines, the automation industry, agricultural engineering, life sciences, and aerospace engineering are all in high demand.
3. India must promote the use of robots and create new robotics automation.
4. Despite a multitude of benefits and drawbacks, one thing is certain: persons with robotics talents will be in high demand in the future. There will almost certainly always be work in the field of robotics, whether it be designing, programming, or maintaining robots.
5. Robotics in future may be able to improve healthcare, increase the efficiency of transportation, and allow us more freedom to pursue creative endeavours.
6. The future of robotics is Autonomous cars, healthcare robots, entertainment robots, public security robots and in defence system also.

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DIGITAL CURRENCY AND INDIAN INVESTORS: ANALYSIS OF INTERESTS AND AWARENESS LEVEL

¹Neetu Khanna and ²Navodita Bammi¹Assistant Professor in Commerce, Trinity College Jalandhar, Punjab²Assistant Professor in Mathematics, Trinity College Jalandhar, Punjab**ABSTRACT**

In this era of digitalization of world economies, the terms 'Digital Currency and Cryptocurrency' have set roots of new revolution in global markets. Although this term was evolved five years ago but entry of global investors, new heights of market cap, towering booms and unpredicted fluctuation have gained the attention of all global investors towards it. As per one study made by economic times, India as highest number of cryptocurrency owners in the world over 100 million. This emerging popularity of digital currency in India has even compelled Indian Financial authorities to take adequate steps to regulate this form of currency in India too. Considering the growing popularity and its related issues, this topic has been taken up for research. The paper focuses on exploring the awareness level of Indians regarding digital /cryptocurrency. Further, it aims at knowing about preference of Indian investors for this instrument as investment in future. The paper highlights the theoretical concept related to digital currency, review of related research papers and articles and analysis of Indian investors' perception about this hot term. Finally, the paper suggests for few rigorous steps to be taken by Finance authorities to ensure that investor must act rationally before putting their hard-earned money at risk by just being into trap of bubble boom visible all around the world.

Keywords: Cryptocurrency, Bitcoins, Digital Money, Blockchain, Indian Investors

INTRODUCTION

The universe of currency has evolved way back from Barter System to today's Digital Currency. Just a few years back, the monetary exchange tradition has only physical form where all the transactions were done with physical form of money. But today Digital currency has revolutionized the trading culture due to exclusion of intermediaries.

Digital Currency or Digital Money or Cyber Cash, as the name suggests are the currency available in electronic form only and are not substantial. Various technologies are used to transfer Digital Currency between users. These technologies can be anything from Computers, smartphones to internet etc. Digital Currencies are restructuring the trading culture as they enable impeccable transfer of value & ownership across the borders and can make transaction costs (as against orienting of notes and coins) cheaper.

Now a days, this topic is a hot topic because the investors all over the world as invested billions in digital currency and crypto currency even when it has not been backed by any legal regulations in many countries. Also, the current Indian Union budget declares a 15% tax on crypto currency thereby attracting the attention of everyone towards this new term. So, it is need of the hour to have research studies to evolve clear vision about digital currency and its future implications on economy.

DIGITAL CURRENCY

Digital Currency or Digital Money or Cyber Cash, as the name suggests are the currency available in electronic form only and are not substantial. It is somewhat similar to physical currencies but enables ownership transfer across the borders and helps in instantaneous transactions as well. Digital currencies are utilized to purchase goods and services but can also be imbibed in certain online fields like gaming or social networks.

The tree of digital currency has many branches or types which co-exist with each other in the electronic realm. But mainly we can categorize Digital Money in two types:

1. Centralized Digital Money
2. Decentralized Digital Money

Centralized Digital Money

Central Bank Digital Currency is the most apt example of Centralized Digital Currency. A Central Bank Digital Currency (CBDC) is the electronic form of a country's mandate or physical currency that is also a maintained by the central bank. Instead of printing money or manufacturing coins, the central bank authority issues digital coins or accounts backed by the full faith and credit of the government.

Unlike Cryptocurrency, CBDC doesn't need encryption to secure the currency, users need passwords and pin to protect their digital wallets from hacking.

Decentralized Digital Money:

Cryptocurrencies are decentralized digital currencies that use cryptography to secure and verify transactions in a network. They are simply computer codes which are not managed by any authority. Formation as well as utilization of Crypto Currency is maintained through blockchains which serve as public financial transaction database. Bitcoin and Ethereum are two of the most popular examples of Cryptocurrency.

All Crypto Currencies are Digital Currency but all Digital Currencies are not Crypto Currency. One of the remarkable differences between Digital and Crypto Currency is the underlying technology. This Research Paper focuses on the difference between the two types and the level of awareness that Indian investors have about digital as well as crypto currency. Further the paper also throws light on the very question pertaining in the market that weather investing in crypto currency is safe or not.

LITERATURE REVIEW**1. Babu S., Abraham K.M., (2021)**

Under vast Indian Economy, it is the need of the hour after covid-19 to reach out to new digital payment methods and check the durability and flexibility of such national payment systems. In Indian market, a technology like Central Bank Digital Currencies will inflate the branches of its payment systems which are being exhibited by others countries as well.

2. Babu, S. (2021)

Country like India needs to balance the policies for cryptocurrencies as cryptocurrencies tend to have pre conceived notions or positions based on incomplete information especially in such a time where rest of the world has responded with mixed open as well as skeptical retaliations.

3. Tschorsch F, Scheuermann, B. (2015)

The most important feature of Bitcoin or cryptocurrency is its transparency. But the same particular aspect acts as a threat as well because of its global attacker model. Further it is obscure to say whether Bitcoin will be as strong as it is today. Although versatility of the network and gaming rewards or token system is a matter of concern.

4. Shah, M. (2017)

The algo behind digital currency is made with the aim to eradicate the middle man i.e. the government and the banking institutions. But removing the middle man uplifts the concern that who will use the cryptocurrency and for what purpose. Further, due to half information of cryptocurrency and computer programming being involved, the risk of cyber-attacks increases extensively.

5. Shrivastva, N., Devi, S. and Verma J. K. (2020)

The positive outlook for cryptocurrency is that the programming of cryptocurrency makes it less demanding to exchange virtue. Transactions are also done using encryptions and keys to safeguard it. In his paper the author also stated that the demonetization of 2016 also encouraged the users having large amount of money to invest them in cryptocurrency where they don't have to pay taxes to the government and doesn't have the threat of demonetization.

6. Dwyer, Gerald, P. (2015)

Utilization of cryptocurrency can become popular in exchange of foreign currency thereby limiting the governments' revenue from expansion.

7. Editor (2021)

The study suggested about 83% of urban Indians are aware of crypto currency but only 16% owned cryptocurrency. Crypto owners prefer cryptocurrency in mutual funds or fixed deposits and life insurance.

8. Editor (2021)

A survey shows that maximum Indians approx. 71% have negligible trust in cryptocurrencies. The survey was conducted by Local Circles. The survey also demonstrated that almost 54% Indians don't want the cryptocurrencies to be legalized by the Government but it should be taxed due to the digital assets held abroad.

9. Ghosh, P. (2021)

Revealed in his paper that young investors prefer digital currency. As per his study, Indians who own cryptocurrency, are mostly in the age bracket of 21 to 35 and live in metro cities.

10. Helms, K. (2022)

Deloitte has shown in a survey that if more clarity is provided by the Government on the regulation of crypto assets, then 82% of Indians are interested to invest in cryptocurrencies. Although 77.4% repliers agreed on the need to use cryptocurrency as securities.

OBJECTIVES OF THE STUDY

This project has been taken up for research with following objectives:

1. To explore the conceptual framework related to the terms digital currency and cryptocurrency and also the relationship between the both.
2. To assess the awareness level of Indian Investors about digital currency on the basis of their gender and age.
3. To evaluate the interest of Indian investors if they would like to expand the conceptual clarity about these terms.
4. To know about the preference of the Indian investors about digital currency as mode of future investment.
5. To reveal the perception of Indian investors about the decision of imposing tax on digital currency by Indian Government.

RESEARCH METHODOLOGY

In order to achieve above mentioned research objectives, both primary and secondary data has been used. Secondary data including conceptual framework as explained by various netizens, researchers in their papers and surveys being published in various newspapers have provided the base for this research survey. On the same time, primary data has been collected from 230 respondents from urban areas of Punjab through use of questionnaire. The responses of 230 respondents have been recorded through google form sent randomly via various social media platforms.

The data has been analyzed with the use of bar charts, pie charts, 5 points Likert scale and Chi Square test.

DATA ANALYSIS AND MAJOR FINDINGS**Demographic Profile of Respondents**

Analysis of part 1 of the questionnaire explained about the demographic profile of the respondents. Out of total 230 respondents, 51% are females and 49% are males. 35% of respondents belong to 18-25 age group where as 42% fall under age group of 25-35 and rest 33% are having age between 35-50 years. Only 3 respondents are of above 50 years in age. The whole sample is distributed equally between the income groups ranging from less than 2.5 lakh per annum, 2.5-5 lakhs and 5.0-12 lakh. Only 15 respondents have income more than 12.00 lakhs in a year.

Level of Awareness

Part 2 of the questionnaire exhibit that 87% of the respondents have heard about both of the terms namely digital currency and cryptocurrency. 82% claim that they are clear about the concept also. The average level of their concept clarity when rated on 5 points Likert scale comes out to be 2.96. However, only 65% were clear about the difference between the meaning of both the terms viz digital currency and cryptocurrency. Similarly, only 65% were clear about the legal status of this currency in India. Whereas 7% were not able to answer about the same and 28% perceived it as banned in India by Govt. With regard to popularity and awareness about types of cryptocurrencies, Bitcoins are ranked as No. 1 (by 84%) followed by Dogecoin (43%) and Ethereum (38%) respectively. 70% of respondents came to know about these terms from friends, relatives and social media, where as 19% reported the advertisements as source of information about digital and crypto currencies.

Awareness level when analysed on the basis of demographic characteristics of population, it was clear that 53% of the respondents who are aware about the digital currencies are female and 35% of such respondents were having age between 18-25, followed by 25-35(29%) and 35-50(15%)

Interest level of Investors about Digital Currency

Part 3 of the questionnaire focused on exploring the inters of the respondents with regard to digital currency as mode of investments in future. 81% of the respondents prefer bank as most preferred source of investing their savings. However, 26% have also invested in bitcoins. 97% of the respondents wish to know more about these terms to have more clarity following which 39% showed their interest with surety to invest in digital currency in future and 48% of the respondents expressed that they may choose this currency as mode of investment in future. 33% of respondents consider the currency to carry medium level risk followed by 23.33% who assumed this to be very risky whereas 40% fail to give answer to this question. 36% of respondents perceive that gov should not have imposed tax on this currency whereas 43% could not comment on taxability of this currency and its implications.

MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

1. Most of the respondents have at least heard about these terms and a large group is even conceptually clear about these terms therefore, the time has come when India should formerly accept this currency and should take steps rigor steps to regulate it in country.
2. The young investors especially of the age from 18 to 35 are keenly interested in these currencies.
3. Unlike in the gender biased society, here females are quite ahead than males with regard to awareness and interest in digital currency.
4. Investors are although aware about these terms but lack clarity. Therefore, financial authorities must take steps to make the Indian investor aware about this terminology by introducing them in curriculum and organizing awareness sessions.
5. It has been noted that in the world of socially connected community, the flow of information is quite fast, therefore formal channels must be developed by the govt to deliver clear guidance about investment and risk associated with this currency.
6. In recent Union Budget, Indian Government has imposed tax on digital currency however, many are not able to understand the cause and implications of this decision. Therefore, govt should release official press note and explaining the future vision of Indian Government with regard to legal adoption of this currency in India.

CONCLUSION

The growing popularity of digital currency worldwide has not left Indian investors untouched. The investors being influenced from its unexpected bombastic performance in crypto space, are getting attracted towards it and finding it as form of future investment. Therefore, Indian fin authorities should come forward to take timely action for delivering more concept clarity about these terms and should also clear its stand and vision to Indian investors with regard to legality of digital currencies in India.

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REVIEW STUDY ON ESSENTIAL OF HIBISCUS FLOWER**¹Omkar Dattu Auti and ²Roshan Gupta**¹Student and ²Assistant Professor, Shri Ram College of Commerce, Bhandup, Mumbai**ABSTRACT**

Land rover is a product type of automobiles the land rover name was created in 1948 by the rover company for a utilitarian 4WD offroader its market was worldwide land rover vehicles comprise upmarket and luxury sport utility cars.

INTRODUCTION

Land rover is a luxurious car it has been launched by Mr. Ratan Tata this car is of Tata Company it has been used by vip peoples. This car is very very expensive and its starting rate is 2.50 crore

Land Rover is best

Tata Company has make his status in market at very high level. Suddenly they have launched a car his name is land rover this car is very different from other we can go hill stations from him & this car is very luxurious from inside and outside. land rover car has maked all car backed to him & this car is very very expensive. land rover offers first - rate cabins , the latest infotainment and safety technoloy , and ability to traverse terrains that many other SUVs wouldnt dare so land rover is the best.

Disadvantages of Land Rover

This car is very expensive and not safe it carries lot of diesel and petrol and it is not useful for the society . poor people cannot effort this car so producer should produce car that the advantage can taken by poor people also . it will ccreate lot of discrimination so it is not useful for the society

Need of Research

With this research people got information of land rover car. This car has launched by TATA company this car is best for vip peoples and due to research of this car people got their luxurious life and they are happy with it.

Benefits of Land Rover

1. luxurious - luxurious it means full of happiness and restfull life luxurious life it gets to they successfull people & rich people this car is full of luxurious.
2. Different from other - It looks very excellent
3. Very useful for senior citizen - It walks very smoothly when we seat inside we dont get hurted and it matters a lot so it is vey useful for senior citizen
4. Best for the family - Five people can seat inside him so it is best for the family.

Role and Objective

Our vision is clear to become the creator of the world most desirable luxury vehicles and services for the most discerning of customers.



Land Rover So Popular

Range rover have become so popular as a result of their increasing standards of luxury, reliability , and the elite following . theyre inspirational cars that come with a hefty price tag, and to many , they are a dream car because they are so impressive



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REVIEW STUDY ON ESSENTIAL OF HIBISCUS FLOWER

¹Laxmi Vishwakarma and ²Samwel Bhira Maci¹Student and ²Assistant Professor, Shri Ram College of Commerce, Bhandup, Mumbai**ABSTRACT**

The natural plant products are widely used nowadays because of increasing the diseases. Hibiscus rose saneness Linn. Is a paint which is widely distribute throughout the world . Its Leaves , barks root and flower have been used in diseases . Various traditional system as Medicine to different part different part of hibiscus rose saneness plant possesses antioxidant Antimicrobial and anti-inflammatory properties which help in treatment of many diseases. Flowers are the cutest thing that nature has to offer, and they come in a variety of colours and types. Hibiscus is one such lovely flower.

Every flower type has a wealth of information and facts about it that we are all unaware of. Today, we will become acquainted with the Hibiscus flower and learn about hibiscus blooms.

This article can be a source of hibiscus flower knowledge for anyone who are interested in flowers, whether professionally or as a hobby.

Keyword: Hibiscus, flower, Importance of Flower

• INTRODUCTION

Summer means some extra care for the skin and with the scorching heat setting in our skin surely need some extra attention. We all have the basic CTM skin care. Regimen to follow but it might neat single –handedly and hence we need some natural nourishment. Hibiscus in known for its anti –ageing and antioxidant properties, white make it worth a this Summer, white we all assume that staying indoor is needs the much –needed care We try all kinds of DIYS to up our skin care routine and this we have some Flower power for did a dieu to summer blues.

What exactly is Hibiscus?

Hibiscus is a flowering plant genus belonging to the Malvaceae family of mallows. The genus is fairly vast, with several hundred species found in temperate, subtropical, and tropical climates all over the world.

Hibiscus Flowers in a Variety of Colors

Hibiscus blossoms come in a variety of colours, including white, red, yellow, pink, purple, peach, and orange. Flower colour changes with age in several Hibiscus species.

Hibiscus flowers have a unique form

Hibiscus blossoms are distinguished by their trumpet-like form. The flower's width ranges from 4 to 18 cm.

Hibiscus rosa-Sinensis, Hibiscus schizopetalus, Mahoe (H. tiliaceus), Kenaf (H. cannabinus), Roselle (H. sabdariffa), and Rose of Sharon are the major species (H. syriacus)

• IMPORTANCE

Hibiscus plant have gorgeous flower that bloom in a variety of colours can add a variety of any large flower and have stunning foliage as well hibiscus leaves and glossy stroge make for a stunning contrast with the flower.



• NEEDS

Amino acid found in hibiscus flower help nourish promote hair growth. the amino acids in hibiscus help produce keratin ,which is the building block of hair , keratin strengthens the Hair and make hair smooth, prevents baldness for skin purifies complexion skin hydration .

Hibiscus Tea Has a Lot of Hibiscus Benefits Hibiscus tea has a lot of hibiscus benefits:

Antioxidants - Hibiscus tea is high in strong antioxidants, which may help prevent damage and disease caused by free radical buildup.

Lower Blood Pressure - Hibiscus tea has been shown in numerous trials to aid in the reduction of high blood pressure. Heart disease can be triggered by high blood pressure.

Improves Liver Health - The liver secretes bile, which helps the body break down fat and generate protein. Hibiscus tea can assist our livers function better.

Promote Weight Loss – Hibiscus has components that aid in weight loss. The results will be significantly better if used after a workout.

Hibiscus contains a chemical known as POLYPHENOLS, which has powerful anti-cancer potential. Hibiscus Blooming Cycle

Although the hibiscus bloom appears in a flash of vibrant colour, most types' displays only endure a day or two. Early in the morning, the flower blooms, but by late afternoon, it has wilted.

Hibiscus Rosa- Applications Sinensis's

Here are some fantastic and worthwhile hibiscus uses:

The leaf and flower paste is combined with sesame oil and applied to the scalp for hair strengthening.

To prevent severe bleeding during menstruation, a paste of sensitive Hibiscus flowers and milk is taken.

To treat diabetes, a hibiscus flower is soaked in water overnight and then consumed the next morning.

The Hibiscus flower paste and cow urine mixture is employed.

Hibiscus Information

Hibiscus is a flowering plant that may grow up to 15 feet tall and has over 200 species around the world.

Hibiscus flowers are one of the exotic flowers available.

Hibiscus cannabinus is a species of Hibiscus utilized in the paper industry, and China and Thailand are the world's leading producers.

Disadvantages

While henna offers plenty of benefits it also come with a host of disadvantage some are merely cosmetic white other are more serious.

- Color may bleed initially.
- May dry out hair.
- Difficuly to remove.
- Can't be bleached.
- Can cause hair damaged.
- May cause hair loss.
- May result in loss of hair texture.

USES

Hibiscus is also loaded with Vitamin "C" which is vital for collagen production jess

Taylor. Tell TZR, The founder of native Nectar Botanicals tells TZR. Hibiscus has great anti-aging benefits because it maintain elastic in skin by decreasing the breaks down our skins natural elastic "DR. Devika.

- **Side effect**

Combine equal quantities of hibiscus powder and amla powder in water to make a smooth paste. Apply it all over your hair and scalp. Leave it for 40 minutes and then wash off with a mild shampoo.

- **Classification**

Kingdom:	Plantae-plants
Subkingdom:	Tracheobionta-vascular plants
Division:	Magnoliophyta-Flowering plants
Class:	Magnoliophyta-Dicotyledons
Order:	Malvales
FAMILY:	Malvaceae- Mallow family
Genus:	Hibiscus L- Rose mallow



- **CONCLUSION**

Majority of the population pursue the drugs derived from the plant origin for their health care. Several medicinal plant derived components are used directly or indirectly

For the Therapeutic Applications

The hibiscus rose sinensis plant has been identified for their various therapeutic applications but the more therapeutic potential of hibiscus Rose sinensis.

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A STUDY ON THE PERFORMANCE OF ANDROID PLATFORM

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ABSTRACT

As the Android platform is widely used for embedded systems including smart mobile devices, the needs for systematic performance analysis have significantly increased. System performance is usually measured by benchmarks and profiler software. We studied on the performance of Android platform using a benchmark application and public profile software. For more detail and integrated performance analysis, we proposed a profiling architecture of Android platform.

Keywords: Android; performance; benchmark; profile;

I. INTRODUCTION

Smart phones and tablet PCs are making big change in our life these days. The most popular operating systems for smart devices are Apple’s iOS and Google’s Android. Because Android is open source software, and offers developers free platform to make their own applications, lots of hardware vendors adopt Android and market share is also increasing.

Even if the platform is common and has the same software capability, the actual performance varies with hardware and other software components. So every hardware and software developers make great efforts to achieve higher optimized performance. To release a smart phone product with some preferable house software, developers should estimate the performance in detail so as to correct or enhance the weak points.

In this paper, we looked into two kinds of software tools for measuring system performance, benchmark and profiling software. Benchmarks are useful for evaluating and estimating the relative level of each device and overall system so can help us choose hardware or adjust system variables to achieve higher performance. Profiling software traces the program activities and gathers information about function calls, memory usage, process, and communication. After we introduce representative benchmark and profile software respectively, we propose a modification for standard tool and show a simple performance analysis result. These will be a basis for future work to develop integrated and comprehensive performance analysis software.

II. ANDROID PLATFORM

Android is a software stack for mobile devices that includes an operating system, middleware and key applications [1]. It is developed and maintained as an open source project led by OHA (Open Handset Alliance) [2], which aims at building a better phone for consumers.



Figure 1. Android Architecture

The base system of Android architecture is Linux kernel 2.6. It supports security, memory management, process management, network stack, and device driver model.

A set of C/C++ libraries is used by various components of the Android system. They consist of standard C system library(libc), media libraries including MPEG4, H.264, MP3, JPG, and PNG, surface manager for display subsystem, LibWebCore as a web browser engine, 2D graphics engine SGL, 3D graphics libraries, Free Type for font rendering and SQLite, a lightweight relational database engine.

Android runtime includes a set of core libraries that provides functionality of Java programming language. Dalvik virtual machine supports a runtime environment for Android Java applications. Every Android application runs in

its own process, with its own instance of the Dalvik virtual machine. Conventional Java virtual machine is a stack-based machine, but Dalvik is register-based and executes files in Dalvik Executable(.dex) format.

Application developers usually access to the application framework layer through lots of APIs while they develop programs with Java and XML. Application framework is an open software development platform that includes view management, content providers, resource manager, notification manager, and activity manager. Many reusable components are released in the framework, and the developer can replace the components or publish its own capabilities.

III. OFF-THE-SHELF PERFORMANCE ANALYSIS TOOLS

There are several kinds of tools for evaluating and analyzing the performance of systems or applications. We studied and tested some benchmark tools and performance measurement software for application developers. They can be acquired from the open marketplace or open websites for free.

A. Benchmark

Benchmark tool is a programming application that evaluates or gauges the relative performance of a system. It runs a special program on the target device and system, gathers the performance data, and shows them as a quantitative value.



Figure 2. AnTuTu Benchmark results

It can run a full test of a key project, through the “Memory Performance”, “CPU Integer Performance”, “CPU Floating point Performance”, “2D 3D Graphics Performance”, “SD card reading/writing speed”, and “Database IO Performance” testing. The final score represents a relative value of the tested system and can be compared with other devices’ results. Fig.2(b) shows the ranking among the same kind of devices, and Fig.2(c) depicts the relative performance among different kinds of devices. We can see that even the same kind of devices may show the very different performance according to the hardware tuning status and system software version.

Quadrant standard edition [4] and Smart Bench [5] are another well-known benchmark application for Android devices, which can measure overall performance like AnTuTu. The other kinds of benchmark applications such as CF-bench [6], GLBenchmark [7], Linpack [8], BenchmarkPI [9], are used for a specific area of system, for example, CPU or graphics subsystem.

Benchmark applications are good tools for evaluating and estimating the relative level of each device and overall system so can help us choose hardware or adjust system variables to achieve higher performance. However, it is difficult to indicate which part affects the performance or which part we should manipulate for the better performance. The detailed software performance analysis is also not available from the benchmarks.

B. Android SDK Tools

In the Android SDK (Software Development Kit), several software tools are included for assisting developers with debugging, monitoring, and profiling. Some of them can be used for performance analysis. Most useful and convenient tools are DDMS (Dalvik Debug Monitor Server) and Traceview because they provide the graphical view.

DDMS a debugging tool with graphical interface, which provides port-forwarding services, screen capture on the device, thread and heap information on the device, logcat, process, and radio state information, incoming call and

SMS spoofing, location data spoofing, and more. While developing with Eclipse, we can open the DDMS perspective as shown in Fig.3.

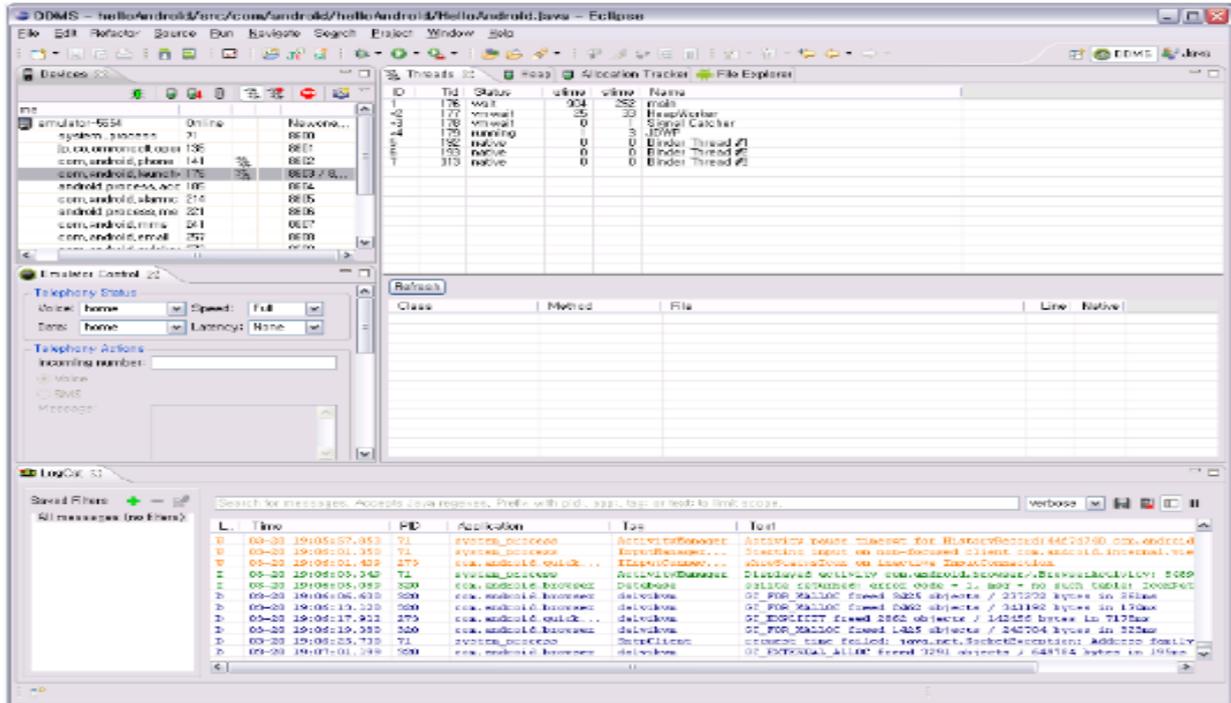


Figure 3. Screenshot of DDMS

Of the debugging tools, method profiling tool is useful for tracing the flow of operations and duration time spent executing the methods. It gathers method calls and estimates the execution time while we interact with applications. Method profiling is invoked and ended with menu “Start Method Profiling” and “Stop Method Profiling” of DDMS or program code startMethodTracing() and stop Method Tracing() of Debug class. The results are recorded in a log file and sent to Traceview tool which displays the logs graphically as shown in Fig. 4 and 5.



Figure 4. Traceview timeline panel

In timeline panel, each row represents threads with time increasing to the right. Each method is shown in different colors which are used in round-robin pattern. If we select a method, we can see its log record in the profile panel (Fig. 5). Profile panel shows exclusive execution time, inclusive time (with called functions), and portion of total execution time. Total number of calls and number of recursive calls are written in the last column.

layout objects. Actual drawing and displaying occur when the View.on Draw() method is called. Objects are in tree structure, and the view system traverses the tree and draw child objects recursively.

The problem is the recursion is executed in single thread, so total rendering time can be very long, resulted in skipping frames or stopping animation. When we observe the portion of each method in profile panel of Traceview, we see that many applications spend largest time in view system and rendering. Moreover, many of recent smart devices use multi-core CPU. Because recursion in single thread cannot utilize of high performance of multi-core high-end CPUs, other view system mechanism is needed for better performance.

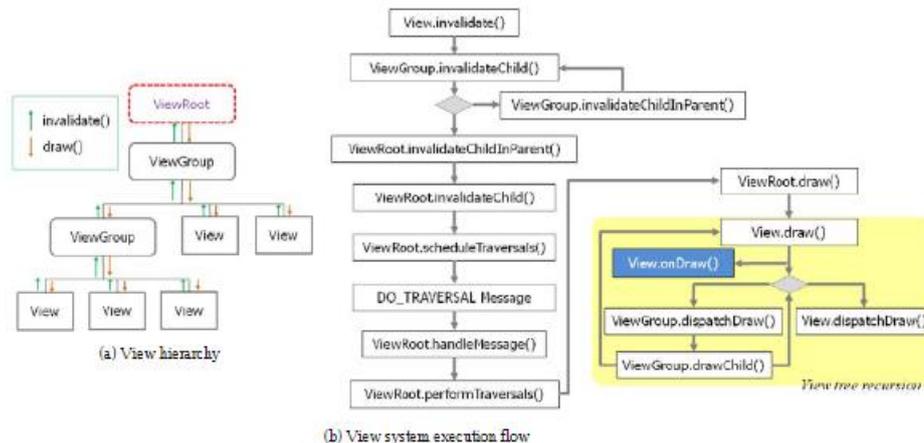


Figure 7. View System

V. CONCLUSION AND FUTURE WORKS

We reviewed some software tools for analyzing the performance of Android platform. Benchmark applications are useful for estimating relative device performance and can be used for tuning and adjusting the performance variables. For application and framework performance, we can utilize the Android SDK tools such as DDMS and Traceview.

With modified debugging and method trace tool, we analyzed the performance of Android view system. Recursive view tree traversal may slow down the rendering process, and sometimes cause cut between smooth animations on display.

We have only worked for the Android 2.2 Froyo version. Recent versions such as Gingerbread(Android 2.3) and Ice Cream Sandwich(Android 4.0) are reported as they significantly improved the system dynamics and some time-consuming components, so resulted in better performance. We will test more programs on newer platforms, analyze the performance degrading factors. We expect the result can help the performance improvement. Another future topic is integrating the Linux kernel profiler, such as Ftrace [11], with Android profiler programs because they are both excellent system but their harmony in operation needs to be examined more for performance issue.

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BLUE BRAIN¹Miss. Sonali Gholap and ²Priti Mahajan¹Student and ²Assistant Professor, Shri Ram College of Commerce, Bhandup, Mumbai**ABSTRACT**

Today scientists are in research to create an artificial brain that can think, respond, take decision, and keep anything in memory. The main aim is to upload human brain into machine. So that man can think, require choice with next to no work. After the death of the body, the virtual brain will act as the man. So, even after the death of a person we will not lose the knowledge, intelligence, personalities, feelings and memories of that man that can be used for the development of the human society. Technology is growing faster than everything. Worldwide Business Machines is currently in examination to make a virtual mind, called "Blue brain". In the event that conceivable, this would be the main virtual cerebrum of the world. IBM, in association with researchers at Switzerland's Ecole Polytechnique Federale de Lausanne's (EPFL) Brain and Mind Institute will start reenacting the cerebrum's natural frameworks and result the information as a working 3-dimensional model that will recreate the high-speed electrochemical interactions that take place within the brain's interior. These include cognitive functions such as language, learning, perception and memory in addition to brain malfunction such as psychiatric disorders like depression and autism. From there, the modeling will expand to other regions of the brain and, if successful, shed light on the relationships between genetic, molecular and cognitive functions of the brain.

Keywords: Nanobots, Neurons, Sensory System, Blue Brain, FTP (floating point unit); ASIC (application specific integrated circuit)

1. INTRODUCTION

Human brain is the most valuable creation of God. The man is called keen in view of the mind. The brain translates the information delivered by the impulses, which then enables the person to react. Yet, we misfortune the information on a cerebrum when the body is obliterated after the passing of man. That knowledge might have been used for the development of the human society. What happen if we create a brain and upload the contents of natural brain into it?

1.1 Blue Brain

The name of the world's first virtual brain. That implies a machine that can work as human cerebrum. Today scientists are in research to create an artificial brain that can think, response, take decision, and keep anything in memory. The principle point is to transfer human mind into machine. So that man can think, take decision without any effort. After the death of the body, the virtual brain will act as the man. So, even after the death of a person we will not lose the knowledge, intelligence, personalities, feelings and memories of that man that can be used for the development of the human society. Nobody has at any point perceived the intricacy of human cerebrum: It is complex than any circuitry in the world. So, question may arise "Is it really possible to create a human brain?" The answer is "Yes". Since anything man has made today generally, he has followed the nature. When man does not have a device called computer, it was a big question for all. Technology is growing faster than everything. IBM is now in research to create a virtual brain, called "Blue brain". If possible, this would be the first virtual brain of the world. Within 30 years, we will be able to scan ourselves into the computers. Is this the beginning of eternal life?

**1.2 What is Virtual Brain?**

Virtual mind is a counterfeit cerebrum, which doesn't really the regular cerebrum, however can go about as the cerebrum It can think like mind, take choices in light of the previous experience, and reaction as the normal

cerebrum can. It is possible by using a super computer, with a huge amount of storage capacity, processing power and an interface between the human brain and this artificial one. Through this interface the information put away in the regular cerebrum can be up stacked into the PC. So, the brain and the knowledge, intelligence of anyone can be kept and used for ever, even after the death of the person.

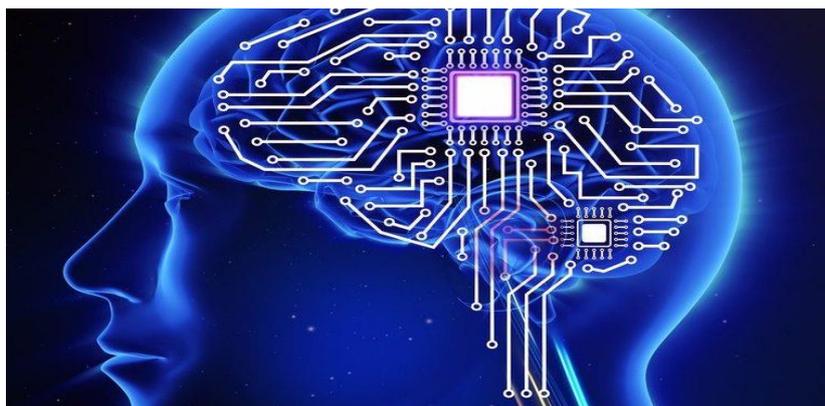


1.3 Why we need Virtual Brain?

Today we are developed because of our intelligence. Intelligence is the inborn quality that cannot be created. Some people have this quality, so that they can think up to such an extent where other cannot reach. Human society is always need of such intelligence and such an intelligent brain to have with. But the intelligence is lost along with the body after the death. The virtual brain is a solution to it. The brain and intelligence will alive even after the death. We often face difficulties in remembering things such as people's names, their birthdays, and the spellings of words, proper grammar, important dates, history, facts etc... In the busy life everyone wants to be relaxed. Can't we use any machine to assist for all these? Virtual brain may be the solution to it. What if we upload ourselves into computer, we were simply aware of a computer, or maybe, what if we lived in a computer as a program?

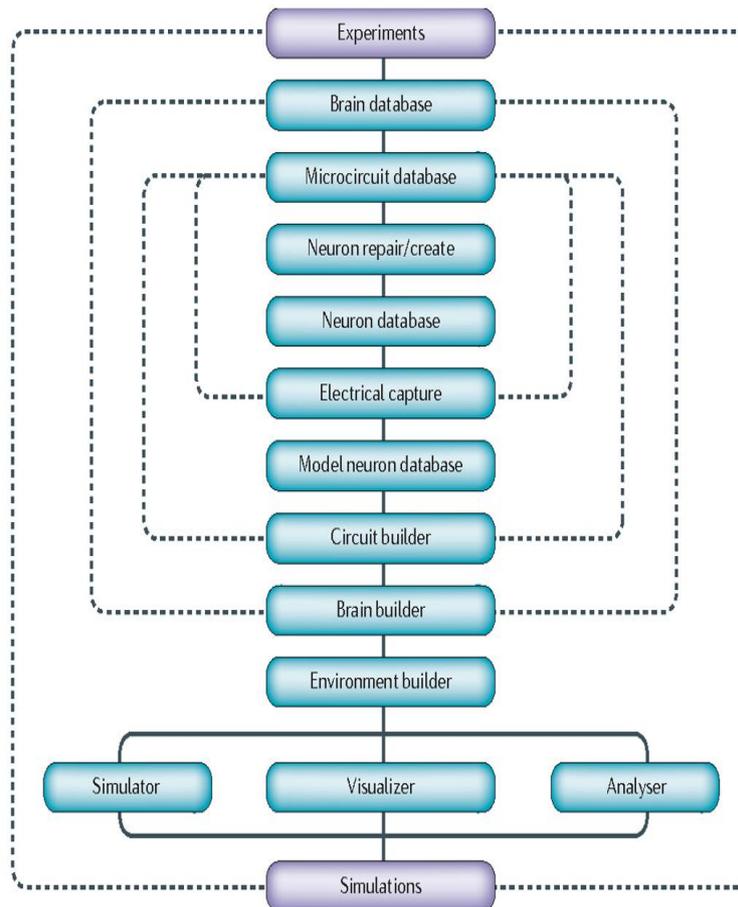
1.4 How it is possible?

First, it is helpful to describe the basic manners in which a person may be uploaded into a computer. Raymond Kurzweil recently provided an interesting paper on this topic. In it, he describes both invasive and non-invasive techniques. The most promising is the use of very small robots, or nanobots. These robots will be small enough to travel throughout our circulatory systems. Traveling into the spine and brain, they will be able to monitor the activity and structure of our central nervous system. They will be able to provide an interface with computers that is as close as our mind can be while we still reside in our biological form. Nanobots could also carefully scan the structure of our brain, providing a complete readout of the connections between each neuron. They would also record the current state of the brain. This information, when entered into a computer, could then continue to function as us. All that is required is a computer with large enough storage space and processing power. Is the pattern and state of neuron connections in our brain truly all that makes up our conscious selves? Many people believe firmly those we possess a soul, while some very technical people believe that quantum forces contribute to our awareness. But we have to now think technically. Note, however, that we need not know how the brain actually functions, to transfer it to a computer. We need only know the media and contents. The actual mystery of how we achieved consciousness in the first place, or how we maintain it, is a separate discussion. Really this concept appears to be very difficult and complex to us. For this we have to first know how the human brain actually works.



Goals & Objectives

The Blue Brain Project is the first comprehensive attempt to reverse-engineer the mammalian brain, in order to understand brain function and dysfunction through detailed simulations. The mission in undertaking The Blue Brain Project is to gather all existing knowledge of the brain, accelerate the global research effort of reverse engineering the structure and function of the components of the brain, and to build a complete theoretical framework that can orchestrate the reconstruction of the brain of mammals and man from the genetic to the whole brain levels, into computer models for simulation, visualization and automatic knowledge archiving by 2015. Biologically accurate computer models of mammalian and human brains could provide a new foundation for understanding functions and malfunctions of the brain and for a new generation of information-based, customized medicine.



Data Manipulation Cascade

Applications of Blue Brain

- Gathering and Testing 100 Years of Data
- Cracking the Neural Code
- Understanding Neocortical Information Processing
- A Novel Tool for Drug Discovery for Brain Disorders
- A Global Facility
- A Foundation for Whole Brain Simulations
- A Foundation for Molecular Modelling of Brain Function

ADVANTAGES AND LIMITATIONS

➤ **Advantages**

- We can remember things without any effort.
- Decision can be made without the presence of a person.
- Even after the death of a man his intelligence can be used.

- The activity of different animals can be understood. That means by interpretation of the electric impulses from the brain of the animals, their thinking can be understood easily.
- It would allow the deaf to hear via direct nerve stimulation, and also be helpful for many psychological diseases. By down loading the contents of the brain that was uploaded into the computer, the man can get rid from the madness.

➤ **Limitations**

Further, there are many new dangers these technologies will open. We will be susceptible to new forms of harm.

- We become dependent upon the computer systems.
- Others may use technical knowledge against us.
- Computer viruses will pose an increasingly critical threat.
- The real threat, however, is the fear that people will have of new technologies.

That fear may culminate in a large resistance. Clear evidence of this type of fear is found today with respect to human cloning.

CONCLUSION

In conclusion, we will be able to transfer ourselves into computers at some point. Most arguments against this outcome are seemingly easy to circumvent. They are either simple minded, or simply require further time for technology to increase. The only serious threats raised are also overcome as we note the combination of biological and digital technologies.

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CYBER SECURITY AND RECENT TREND OF CRYPTOGRAPHY

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ABSTRACT

In today's digital world everyone is using internet for personal, educational, social and transactional purpose. Due to this all information is on internet network that resulting into different kind of cyber-attacks. This cause harm not only to privacy of personal but to the government organizations as well. Cyber Security have an important role in the field of Information and Technology .Securing the information or data have become one of the first priority in today's digital world. Whenever anyone thinks about the cyber Security the first. Thing that comes in our mind is 'cyber attacks' which are increasing rapidly day by day. Various Governments and organizations are applying counter measures in order to prevent these cyber-attacks. Besides various measures cyber security is still a very big concern to many of us. An attacker is always one step ahead than the defender. Defender come to know about the attack when it happened. Every defence is based upon the past attacks. The attackers are inventing new techniques to challenge the security frameworks, use powerful tools and tricks to break any sized keys.

The goal of this paper is to Focus on challenges faced by cyber security on the latest technologies. It also focuses on newly invented cyber security techniques, ethics and the trends changing the image of cyber security.

Overall the paper will present various terms related to cyber security and its trends related to cryptography.

Keywords: Cyber Security, Cryptography, Encryption, Decryption, Plain Text, Cipher Text.

1. INTRODUCTION-

1.1 **Cryptography:** Cryptography is a program that converts private data or information into an unreadable or mixed form. It is, in fact, the art of secret writing. The concept of cryptography is based on five elements which are as follows.

- a. Plain text: A message or information that we want to send in private. The Plain text set is represented by **P**.
- b. Cipher text: A form of information or message that is unreadable or unreadable. The cipher text set is represented by **C**.
- c. Key: It is the law with the help of how data is abused. The set of keys is represented by **K**.
- d. Encryption Function: It is the process by which the cipher text is produced. The encryption function set is represented by **E(x)**.
- e. Encryption Removal Function: **E(x)** transverse function. It is an attempt to produce the first message. The set of encryption function is represented by **D(x)**. So cryptography is based on {P, C, K, E (x), D (x)}

1.2 **Cryptography Goal**

Cryptographic goals are set before developing a new encryption model.

- Access Control
- Authentication
- Confidentiality
- Data Integrity
- Non-Repudiation



1.3 Key Types in Cryptography:

- Symmetric Key Cryptography
- Asymmetric Key Cryptography

Symmetric Key Cryptography:

In this type of cryptography only single key is used for encrypting and decrypting the message. The sender and receiver will use the same key for Encryption & Decryption.

Asymmetric Key Cryptography:

It is a dual key system also known as public key system, one key for encrypting information and the other statistically related key removes encryption which known as the Decryption. In this Asymmetric key method sender will use the receiver’s public key to encrypt the message and then receivers will use its own private key to decrypt message send by a sender.

2. HISTORY OF CRYPTOGRAPHY

It is thought that since humans were able to write cryptography, they were born with it. In time, people were organized into kingdoms, tribes, and groups. Then ideas such as politics, war, and power evoke a natural human need for private communication. So the cryptography journey begins.

2.1 Caesar Shift Cipher

Each English language alphabet is associated with a number and performs correctly. Applied substitution are as follows.

A→0	B→1	C→2	D→3	E→4	
F→5	G→6	H→7	I→8	J→9	
K→10	L→11	M→12	N→13	O→14	
P→15	Q→16	R→17	S→18	T→19	
U→20	V→21	W→22	X→23	Y→24	Z→25

Substitution Matrix

Encryption Technique:

F	A	T	H	E	R	(Plain Text)
5	0	19	7	4	17	(Substitution Value)
6	6	6	6	6	6	(key Value)
11	6	25	13	10	23	(After Adding key value)
L	G	Z	H	K	X	(Cipher Text)

i.e., the word **FATHER** is encrypted as **LGZHKK** under Encryption function. Now, we have to decode the message, for this we need to define another function i.e., decryption function which is the inverse technique of Encryption.

Decryption Technique:

L	G	Z	H	K	X	(Cipher Text)
11	6	25	13	10	23	(Positional value)
6	6	6	6	6	6	(Encryption key Value)
5	0	19	7	4	17	(After removal of Key Value)
F	A	T	H	E	R	(Plain Text)

In this way the receiver gets the original message using decryption function depending upon same key.

2.2 Substitution Cipher

Later, between 500 and 600 BC scholars changed the simple mono-alphabetic substitution ciphers. It converts one letter of plain text to another mark or character using a specific rule. This rule was used to return the message. The substitution cipher is difficult to break. The way this works is that we put each alphabet in another alphabet in a letter.

2.3 Affine Cipher

The Affine Cipher is another example of the Mono alphabetic Substitution cipher. It is slightly different from the other examples encountered here, as the encryption process is very mathematical. The whole process

depends on the performance of module m (length of characters used). By doing the calculations in simple letters, we are compiling a clear text.

Encryption

The first step in the encryption process is to convert each letter in the blank text alphabet into a whole number in the range of 0 to m-1. By doing this, the encryption process for each letter is provided by

$$E(x) = (ax + b) \text{ mod } m$$

Where a and b are the key for the cipher. This means that we multiply our integer value for the plaintext letter by a, and then add b to the result. Finally, we take this modulus m (that is we take the remainder when the solution is divided by m, or we take away the length of the alphabet until we get a number less than this length).

Plain Text	A	F	F	I	N	E	C	I	P	H	E	R
X	0	5	5	8	13	4	2	8	15	7	4	17
5x+8	8	33	33	48	73	28	18	48	83	43	28	93
(5x+8) mod 26	8	7	7	22	21	2	18	22	5	17	2	15
Cipher Text	I	H	H	W	V	C	S	W	F	R	C	P

The affine cipher with a = 5, b = 8. We work out values of letters, then do the calculations, before converting numbers back to letters. Thus the cipher text produced is "IHHWVC SWFRCP".

2.4 Vigenere Cipher:

Vigenere Cipher is a way of encrypting alphabetic text. It uses a simple polyalphabetic replacement method. A polyalphabetic cipher is any switch-based cipher, using multiple replacement alphabets. The original text encryption was performed using the Vigenère square or Vigenère table.

- The table contains letters alphabets 26 times in different rows, each alphabet rotated to the left compared to the previous characters, corresponding to 26 Ciphers possibly Caesar.
- At different points in the encryption process, the cipher uses letters that are different from one of the lines.
- The characters used in each location depend on the repetitive keyword.

Example:

Input: Plaintext : GEFKMF~~OR~~M
 Keyword : AYUSH
 Output: Cipher text: GCZCTF~~M~~LYS

For generating key, the given keyword is repeated in a circular manner until it matches the length of the plain text. The keyword "AYUSH" generates the key "AYUSHAYUSHAYU"

The plain text is then encrypted using the process explained as follows.

Encryption

The first letter of Plain text, G is paired with A, the first letter of the key. So use line G and column A of the Vigenère square, i.e. G. Similarly, for the second letter of the plain text, the second letter of the key will be used, the letter at the line E, and column Y will give you alphabet C & it continue to follow the same for the rest of the alphabets which are there in Plain text.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
A	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
B	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A
C	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B
D	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C
E	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D
F	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E
G	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F
H	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G
I	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H
J	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I
K	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J
L	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K
M	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L
N	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M
O	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N
P	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Q	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
R	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
S	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
T	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
U	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
V	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
W	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
X	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
Y	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
Z	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y

3. CRYPTOGRAPHY ALGORITHMS

3.1 RSA ALGORITHM

RSA (Rivest–Shamir–Adleman) is a public-key cryptosystem that is widely used for secure data transmission. It is also one of the oldest. The RSA algorithm consists of four steps: **key generation, key distribution, encryption, and decryption**. RSA includes a public key as well as a private key.

3.2 Block Cipher

Following is the way to encrypt the message using a Block Cipher

Suppose **A** and **B** want to use a block cipher to encrypt. They agree to exchange message using a block cipher. • Suppose **A** has a long message of **m**. Suppose **A** and **B** have a ‘**L**’ bit block cipher (DES-64 bit, Triple DES-64 bit, AES-128 bit, SPN) and their respecting keys. • The long message ‘**m**’ will be broken by ‘**L**’ bit blocks, in the last block some of the more complex pieces will be connected to form **L** bit.

3.3 Enhanced Encryption Standard (AES)

• Ciphers (Old) are broken under when we have a modern computer speed. It is not secure. • If we have DES it is also broken by common attacks, time attacks, Complete Search Attacks • In DES one can attack unusual attacks such as separate cryptanalysis attacks, direct cryptanalysis attacks. DES is not secure. • We need to have another level, we have Triple DES, $3 \times 16 = 48$ cycles, very large. • AES is designed to withstand common attacks, Alternative and line cryptanalysis and all other existing attacks [5,12]

Comparison between Standard Algorithms

Name of Algorithm	Origin	Key Type	Created by	Year	Key size (in bits)	Blocks (in bits)	Rounds	Shortcomings
DES [3]	Lucifer	Symmetric key	IBM	1975	56	64	18	Not deemed sufficient to encrypt sensitive data
3DES	DES	Symmetric key	IBM	1978	112 or 168	64	48	Slow
AES	Square	Symmetric key	Joan Daemen and Vincent Rijmen	1998	128 or 192 or 256	128	10,12, 14	Power Analysis Attack
RSA	Mathematical, based on product of large primes	Asymmetric key	Rivest Shamir Adelman	1977	1024 to 4096		1	Difficult to decide large p and q (slowest)

4. Trending Cyber security Threats:

Following are some popular trends of cyber security

1. Ransomware and as-a-service attacks
2. Enterprise security tool sprawl
3. Misconfigured security applications at scale
4. Sophisticated spear phishing strategies
5. Increased frequency of credential theft
6. Mobile device and OS vulnerabilities left unchecked
7. Data governance and management errors
8. Distributed growth of insider threats post-COVID
9. Poorly secured cloud environments
10. Incomplete post-attack investigation

4.1 Ransomware and As-A-Service Attacks

Ransomware is a growing type of malware program in which the attacker captures the victim and her personal data for redemption until she complies with the ransom requirements. Because ransomware is a growing vector of attack, many attackers have developed expert knowledge that they are willing to share with others at a price.

Ransomware-as-a-service (RaaS) has grown in popularity, making it possible for non-traditional criminals to follow the templates and guidelines to complete the entry of complex programs.

"Ransomware is one of the biggest threats, therefore, violent groups are promoting RaaS offerings to agents and any cybercriminal who is investing in their area.

4.2 Enterprise Security Tool Sprawl

For many organizations, their security problems are rooted not in a lack of cyber security tools, but rather in a large collection of siloed and mismanaged cyber security tools. It is considered that one of the top threats of cyber security today is the proliferation of tools," the result of the distribution of tools is a decrease in network visibility and the detection of a weaker threat. In the absence of visibility due to the proliferation of tools, defence teams may experience a frightening response time delayed and difficulty in managing which tool will address a particular security risk. The result is that organizational resources and networks may be more vulnerable than ever before."

4.3 Sophisticated Spear-Phishing Strategies

Phishing attacks targeting personal and professional inboxes have become more personalized, and the attack vectors are approaching new platforms, like social media channels. "The approach used by human criminals to attack sensitive identity theft ranges from a slow-moving e-mail spam to a well-designed and accurate crime attack by high-profile corporations through social media," Warmka said. "Once we have identified a high-value organization, human hacker will typically will use LinkedIn's search tools to identify potential insiders (employees or contractors who may be involved in crime). These 'internal motives' are then tested based on personal information they post on their profiles, such as Facebook, Twitter, Instagram, and other social media platforms. The resulting personalized profile will identify a combination of motives and risk factors that are different from the intended target.

4.4 Increased Frequency of Guaranteed Theft

Sometimes, system hacking is as easy as a malicious player who breaks a user's password or security questions when it is too easy to guess. Identity theft is one of the most common areas of cyber security, because, as a general rule, users do not protect their credentials with the appropriate passwords or other security agreements.

Cyber security is trying to deal with the fallout of rushed digital transformations over the last year," It remains a major problem: Businesses need to balance security with simplicity to ensure that users remain productive and secure. In many cases, businesses set up VPNs to protect remote activity - the use of VPNs is increasing worldwide as a result of the pandemic.

4.5 Distributed growth of insider threats post-COVID

To continue the discussion about advanced data processes, it is important to ensure that users, regardless where they are located, are only given access to data and systems associated with their operations. The insider threat is more difficult to detect now with a remote workforce. Fundamentally, this is an issue with data governance and employees having access to too much information. There is no way to eliminate the threat, but good data governance practices are essential to reduce the potential impact of an insider leaking data or causing damage to systems

CONCLUSION

This paper gives from basic to detail information of some cryptographic terms & techniques with the comparisons between various cryptographic algorithms. By studying these trends we can conclude that in future we need to have more advanced counter measures to protect and secure the information. Finally we come to the conclusion that the Cyber security is more important because not only it helps to secure information but also our system from various attacks.

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A STUDY OF PERFORMANCE APPRAISAL STRATEGY FOR EMPLOYEE RETENTION IN SOFTWARE INDUSTRY**¹Dr. Yogeshwari Patil, ²Ms. Sonali Saraf and ³Ms. Vrushali Ghodke**¹Coordinator and Assistant Professor Sheth N.K.T.T. College, Thane (W)^{2,3}Assistant Professor Sheth N.K.T.T. College, Thane (W)**ABSTRACT**

Essential services employees are a software company that hires, encourages and maintains them. Although from time to time, the amount created by employees in other software companies takes the form of intangible assets such as intellectual property, types, and so on, most employees in human enterprises such as IT services and products intangible. Software companies use new labor methods different from brick and mortar companies to manage human resources. The HR processes in Indian software companies such as performance testing, staff recruitment and staff development programs are significantly different from the manufacturing and other service companies. The researcher in this study is trying to find an answer to the research question whether the various analytical strategies in software companies reflect employee retention in the software industry. Performance management has become an integral part of the organization's strategic direction for human resource management and Vision and Mission. Performance management is essential to ensure the sustainability and competitiveness of the organization in today's information technology world.

Keywords- Employees, Software Company, performance appraisal, retention, Human Resource, IT services.

INTRODUCTION

The overall performance of any organization depends solely on the quality of Human Resources available. In general terms, human resources can be defined as the content of the knowledge, skills, creative abilities, talents and abilities of the organization's staff and the values, attitudes, methods and beliefs of the person involved in organizational matters. Performance appraisal, or staff evaluation, is an annual process, in which productivity and performance of employees in assigned projects will be documented, evaluated and compared to the objectives set by their managers. They will receive feedback and advice on their skills or future growth within the company.

The results of this program vary from company to company and depend on the growth of the business, the size of the company or the performance of the individual. Generally, however, the outcome will determine whether employees can receive promotion, salary increases, bonuses, and other rewards. Staff evaluation is not only important to reward deserving employees. The same principle can be applied to maintain your skills and reduce the cost of hiring and training. Staff retention and performance are HR's top concerns today. People the Gartner group company that focuses on human financial management in IT organizations have realized that the average time for IT professionals is less than three years. In addition, the use of new technologies, learning and training support, and challenging environment are ranked higher than competing salary structures as effective retention processes.

REVIEW OF LITERATURE

Dyer and Reeves (1995), captured the results of HRM operations in the following ways.

- Financial results; profit, sales markets
- Organizational results; productivity, quality, efficiency
- HR-related results; attitude and behavior of employees - satisfaction, commitment, change of staff, absence.

Richard and Johnson (2001), using a sample of banks, examined the impact of an effective HRM strategy on a wide range of variables. They found that the effectiveness of strategic HRM was directly related to employee benefits and that the relationship between this rate and the return on equity was strong between high-value banks.

Nayyab H et al (2011), conducted research to find that HRM processes contribute to improving the performance of banks. In addition, the result showed that HRM processes such as training, staff participation in decision-making were found to be closely related to bank performance. In addition, Osman et al (2011) 55 found that successful implementation of HR processes in a company has a significant impact on company performance. The findings also show that HR processes have a nearly 50 percent impact on solid performance.

D S Raval et al (2014), This research paper highlights the context in which the IT / ITES Industry has grown in India and the level of human resource management (HRM) processes and systems developed in this sector. Using a multidisciplinary approach that combines both in-depth interviews with senior HR executives as well as a list of self-fulfilling questions, the data is collected from selected IT / ITES companies in the city of Vadodara. The results highlight how certain HRM processes such as hiring, performance measurement, training and development, and compensation apply. Research suggests the existence of formal, organized, and limited HRM systems in IT / ITES organizations. Several ideas related to HRM policies and procedures were assigned to senior HR executives who were interviewed to shed more light on IT / ITES companies' performance and challenges. The analysis provides real and useful information for both academics and doctors and opens the way for further research in the field of HRM systems and processes in the IT / ITES industry in India.

RESEARCH METHODOLOGY

"The Research Methodology is a means of taking decision from the result obtained from the collective, natural commercial or social phenomena."

SAMPLE DESIGN: A sample design is a definite plan for obtaining a sample from a given population. It refers to the techniques or the procedures that the researchers would adopt in selecting items for the samples. Sample design is determine before data are collected. Here we select the population as sample in our sample design. The selected respondents should be as representatives of the total population.

SAMPLE SIZE: Keeping in mind all the constraints the size of the sample of our study was selected as 400. Employees were selected from selected IT companies by the researcher in Hingjawadi, Pune region.

DATA COLLECTION:

A combination of both primary and secondary methods of collecting data was used.

PRIMARY DATA: The primary data are collected by conducting interviews with the selected employees in the selected companies by using structured interview schedule.

- Questionnaire: Detailed & comprehensive questionnaire was prepared for HR : Team Leader (TL), Project Leader (PL), Project Manager (PM), Manager (M) and Senior Manager (SM)

SECONDARY DATA: The secondary data are collected from the secondary sources, these sources which record an event or happening that was never actually witnessed by the researcher. In other words, secondary sources are steps away from the real fact, replete with interpretations. The secondary data are available from the following sources:

- Records and documents written by actual participants or eyewitnesses of an event such types of documentary sources are official records or minutes, deeds, articles, press releases, newspapers items, survey and various reports etc.
- Records on historical rather chronological developments of the organization or event.
- Orally transmitted materials.
- Handwritten materials.
- Printed material like books, periodicals, papers and literature.
- Audio-visual records.
- Reference books.
- Journals.
- Relative Thesis.
- Computer (Internet) etc.
- Reports.
- Magazines, newspaper, and reference books.

OBJECTIVES OF THE STUDY:

Researcher has proved the following objectives through his questionnaire

1. To know if performance appraisal is an essential tool for employee's performance.
2. To examine the perception of employees working in software companies towards employee retention strategies.
3. To know if performance appraisal strategy is an essential tool for employee's retention

STATEMENT OF HYPOTHESIS:

The researcher has framed the following hypothesis for the study:

Hypothesis:

H0: There is no significance relation between performance appraisal strategy and employee’s retention in IT sector

H1: There is significance relation between performance appraisal strategy and employee’s retention in IT sector

DEMOGRAPHIC PROFILE OF THE RESPONDENTS:

Table No. 4.1: Qualification of Respondent's

	Frequency	Percent	Valid Percent	C.F. (%)
BE	158	39.5	39.5	39.5
M.Sc.	66	16.5	16.5	56.0
MCA	99	24.8	24.8	80.8
MBA	77	19.3	19.3	100.0
Total	400	100.0	100.0	

Source: Primary Data (SPSS Version 20)

Interpretation:

Qualification is the essential criteria to determine various results as independent variable. As per table No. 4.1 and graph No. 4.1, 39.5% respondents were having BE qualification followed by MCA (24.8%), MBA (19.3%) and M.Sc. (16.5%).

Table No.4.2: Designation of Respondent's

	Frequency	Percent	Valid Percent	C.F. (%)
Team Leader	170	42.5	42.5	42.5
ProjectLeader	80	20.0	20.0	62.5
Project Manager	70	17.5	17.5	80.0
Manager	50	12.5	12.5	92.5
Senior Manager	30	7.5	7.5	100.0
Total	400	100.0	100.0	

Source: Primary Data (SPSS Version 20)

Interpretation:

Above Table No. 4.2 gives information about designation of respondents. Designation of respondents is one of the prime independent variable to draw various results of the study problem. Majority respondents were Team Leader (42.5%) followed by Project Leader (20%), Project Manager (17.5%), Manager (12.5%) and Senior Manager (7.5%).

Table No.4.3: Experience of Respondent's

	Frequency	Percent	Valid Percent	C.F. (%)
1-7yrs	131	32.8	32.8	32.8
8-14yrs	95	23.8	23.8	56.5
15-22yrs	97	24.3	24.3	80.8
23yrs and above	77	19.3	19.3	100.0
Total	400	100.0	100.0	

Source: Primary Data (SPSS Version 20)

Interpretation:

Experience is a demographic factor to be considered in research study to draw out various results of the study. As per Table No. 4.3, 32.8% respondents were 1-7 years experience followed by 15-22 years (24.3%), 8-14 years experience (23.8%) and 23 years and above (19.3%).

Table No. 4.4: Age (years) of Respondent's

	Frequency	Percent	Valid Percent	C.F. (%)
24-30yrs	130	32.5	32.5	32.5
31-37yrs	96	24.0	24.0	56.5
38-44yrs	114	28.5	28.5	85.0
45 yrs and above	60	15.0	15.0	100.0
Total	400	100.0	100.0	

Source: Primary Data (SPSS Version 20)

Interpretation:

Age of respondents is also a demographic and independent factor. It is also considered to draw out various conclusions of the study. As per Table No. 4.4, 32.5 % respondents were in 24-30 years age category, 28.5% respondents were in 38-44 years age category, 24.0% respondents were in 31-37 years age category and 15.0% respondents were 45 years and above.

Table No. 4.5: Gender of Respondent's

	Frequency	Percent	Valid Percent	C.F. (%)
Male	277	69.3	69.3	69.3
Female	123	30.7	30.7	100.0
Total	400	100.0	100.0	

Source: Primary Data (SPSS Version 20)

Interpretation:

Gender is one of the most important parameter and demographic variable to be considered for resolving various issues in the research problem. As per Table No. 4.5, 69.3% respondents were male and 30.7% respondents were female.

Table No. 5.2: Correlations and group statistics

	Pearson Correlation	Sig. (2-tailed)	N	Mean	S.D.
Performance Appraisal	1	-	400	41.18	10.340
Provide opportunity for organizational diagnosis and development	.726**	.000	400	3.87	1.129
Performance appraisal is fair in this organization	.753**	.000	400	3.85	1.148
I am informed of how my performance evaluation is done	.857**	.000	400	3.74	1.202
The objectives of the appraisal system are clear to employees	.776**	.000	400	3.67	1.206
Appraisal system has a strong impact on individual and team performance	.820**	.000	400	3.99	1.151
Employees are provided with performance based feedback and counseling	.775**	.000	400	3.55	1.227
I am satisfied with the employment security the organization offers me	.854**	.000	400	3.62	1.251
The employment security offered by the organization allows me to be innovative and initiative with job related issues	.806**	.000	400	3.68	1.141
Appraisal Strategy is use full to retain the employee in organization	.744**	.000	400	3.59	1.291

INTERPRETATION

A Pearson product-moment correlation was run to determine the relationship between Performance Appraisal and providing opportunity for organizational diagnosis and development. There was a strong, positive correlation between Performance Appraisal and providing opportunity for organizational diagnosis and development, which was statistically significant ($r = .726$, $n = 400$, $p = .000$, Mean = 3.87 and S.D. = 1.129). There was a strong, positive correlation between Performance Appraisal and fair strategy in performance appraisal in the organization for promotion, which was statistically significant ($r = .753$, $n = 400$, $p = .000$, Mean=3.85 and S.D. =1.148). When employees are informed about their performance from time to time, they get updated and they also know their lacunas so that they can do SWOT analysis which helps the organization a lot. There was a strong, positive correlation between Performance Appraisal and information about performance

evaluation to employees which was statistically significant ($r = .857$, $n = 400$, $p = .000$, Mean = 3.74 and S.D. = 1.202). There was a strong, positive correlation between Performance Appraisal and clear and transparent objectives of performance appraisal to employees, which was statistically significant ($r = .776$, $n = 400$, $p = .000$, Mean = 3.67 and S.D. = 1.206). This activity creates positive image in the minds of employees so that it helps employees to work positively which increases the overall productivity of the organization. There was a strong, positive correlation between Performance Appraisal and variable/dimension of performance appraisal in terms of feedback and counseling provided to employees based on performance in the organization which was statistically significant ($r = .775$, $n = 400$, $p = .000$, Mean = 3.55 and S.D. = 1.227). Offering permanent employment gives more satisfaction to employees and it beneficial to the organization as this saves cost of recruitment and training and development programme. There was a strong, positive correlation between Performance Appraisal and variable/dimension of performance appraisal in terms of satisfaction about employment security offered in the organization which was statistically significant ($r = .854$, $n = 400$, $p = .000$, Mean = 3.62 and S.D. = 1.251). Appraisal and employment security motivates the employees to be innovative and taking initiative in the organization. Employees take initiative or active involvement through they do some innovation in their present work which increases the sales turnover and market share of the organization. There was a strong, positive correlation between Performance Appraisal and variable/dimension of performance appraisal in terms of employment security offered by the organization allows employees to be innovative and initiative with job related issues which was statistically significant ($r = .806$, $n = 400$, $p = .000$, Mean = 3.68 and S.D. = 1.141). It generates positive approach, increases labor productivity and value per employee or business per employee in the organization. There was a strong, positive correlation between Performance Appraisal and variable/dimension of employee retention in terms of the company strongly considers employees goals and values which was statistically significant ($r = .744$, $n = 400$, $p = .000$, Mean = 3.59 and S.D. = 1.291)

FINDINGS

It is found that majority respondents have agreed that their organizations provide them adequate opportunity for diagnosis and development. It shows that Organizational Diagnosis is an effective ways of looking at an organization to determine gaps between current and desired performance and how it can achieve its goals. It indicated that majority respondents have agreed that their organizations have fair performance appraisal. Having fair and clear approach in performance appraisal helps organization to determine promotion and other benefits. It showed that majority respondents have agreed that performance appraisal and objectives of it are clear and simple to them. It helps employees to understand the parameters of performance appraisal while evaluating them by their organization. Performance appraisal can have a strong impact on the employees self esteem. This appraisal should in no way demoralize the employee, which would cause an increase of higher employee turnovers for the organization. It is found that It indicated that majority respondents have agreed that that they are satisfied with the employment security offered in their organization.

CONCLUSION

IT companies are offering attractive pay packages, performance based salary structure, better job satisfaction, career opportunities and challenging nature of jobs. The study reveals that implementing performance strategy which affect employees' retention in the organization are the main challenges faced by the software companies. It is also found that job security is not an important concern among the software professionals to opt for a career in a particular company. The overall working conditions, a fair and equitable pay package, challenging nature of the job, career growth, work life balance, participation in decision making process, motivational training etc are the important factors in attracting and retaining employees in the organization.

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➤ **WEB MATERIAL**

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DERIVATIVE MARKETS IN INDIA**¹Abhishek Sharma and ²Rohini Yevale**¹Student and ²Assistant Professor, Shri Ram College of Commerce, Bhandup, Mumbai**ABSTRACT**

Derivative is financial security in which involve two or more parties. Trader use derivatives. It is one type of contract. Two types of derivatives are available in market, which is the future and options. Derivatives give more benefits to investor which hedge losses of investors and keep sale investment. From fluctuation of market, derivatives are available with registered trade brokers and trading members of stock exchanges. It is a one type of a financial contract. This will be stock, index, commodities, currency exchange sales, sale of interest etc.

INTRODUCTION

The history of derivative is very long than most people think. In forward delivery contract, delivery is done for fixed price, at fixed place, on fixed date. Roman Emperor had done forward contract to supply gain. After that this contract is also done between farmers and merchants to reduce risk arising due to future pricing of goods. Again, forward contract started to reduce risk for many centuries. First exchange started in 1700 century in Japan. To reduce credit risk to provide centralized location to negotiation forward contract, formal commodities exchange started in 1948 in US.

OBJECTIVES OF STUDIES

- To give proper knowledge about derivatives.
- To reduce risk from financial market.
- To take proper decision in derivatives.
- To help investors in security market.

Research Design

In the derivative research, researcher used secondary data to get right in information along with researcher observed financial market transaction to get proper information. Used textbooks for research propose.

Limitation of study

Every research there is certain limitations. Some conditions applicable for derivative research. There is very less time to use for research. Limited observation is done for research. There theoretical background is used. Derivatives researcher is very important.

Need for Derivatives market in India

Prices of commodities fluctuate every day. Derivative contract gives an option to manage the risk. In July 1999 derivative started in India. Derivative market is most important market is in the world. Derivative is the most important part in day-to-day life to manage risk. Indian method was outdated for managing risk.

Some transactions take place credit basis. More risk we face in credit transaction. To reduced risk from financial market, some tools are needed. Which is the useful for investor. Derivatives are financial investment find Which reduce risk from financial market. Derivatives are financial contract. Risk is a features of security market for investors. This research guide people about derivatives contract. Through this research, people will get clear idea to reduce risk and derivative contract.

Need of derivatives in Indian Market

Indian economy is growing economy. Here lots of people are poor and there is less amount of people are rich. Indian economy is growing economy. Hence lots of people are poor and the lets are rich. Everyone needs finance. Those who have a finance they want security from financial market. In financial market derivatives use give security and ensure market efficiency, deal price discovery of underlying assets. It transfers risk, risk diversification, risk allocation and risk neutralizing. We need regularly regularity authority for ensure smooth functioning of financial market. There is no need to middle man of transaction when derivatives are available in market. In India derivative market exist for a long period of time. Commodity derivatives are investment tools which is the useful for investor for reducing risk and making profit. It is a Complex financial tool. There are three derivatives available in the market which is a given below

1. Options
2. future

3. Swap

Innovation of derivative which bring more developed in financial market, which provide security to provide investors. It brings revolution in financial market. It manages risk and transfer risk.

Needs of Derivative in Indian Financial market

Financial market is subject of risk but finance is needed anywhere. So, everyone take risk for getting finance. There are many financial transactions which take place in money market and capital market.

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AN EVALUATIVE STUDY ON PRADHAN MANTRI MUDRA YOJANA (PMMY)¹Mr. Sandesha Shetty and ²Mrs. Niveditha ShettyAssistant Professor, Bunts Sangha's S. M. Shetty College of Science, Commerce & Management Studies,
Powai**ABSTRACT**

In India's economy, Micro, Small, and Medium Enterprises (MSMEs) play a crucial role. As a result, government assistance in the form of loans, training, exposure, and product marketing assistance must be provided to these MSME businesses. Lack of information, financial illiteracy, entry-level policies, excessive costs, lack of infrastructure, lack of financial access, and technology impediments are among the key issues that small firms and micro-enterprises confront. In 2015, the Indian government introduced MUDRA loans to help this business by providing collateral-free loans. The program has been successful in delivering loans to small and medium-sized businesses. This paper aims to understand the concept of Mudra Loan and its three categories, percentage of increase/decrease in sanctioned loan amount, performance of top ten states in PMMY.

Keywords: Pradhan Mantri MUDRA Yojana (PMMY), Micro, Small & Medium Enterprises (MSMEs)

INTRODUCTION

MUDRA loans are extended by banks, NBFCs, MFIs and other eligible financial intermediaries as notified by MUDRA Ltd. The Pradhan Mantri Mudra Yojana (PMMY) announced by the Hon'ble Prime Minister on 8th April 2015, envisages providing MUDRA loan, upto Rs.10 lakh, to income generating micro enterprises engaged in manufacturing, trading and services sectors. The overdraft amount of Rs. 5000 sanctioned under PMJDY has been also classified as MUDRA loans under Prime Minister MUDRA Yojana (PMMY). The MUDRA loans are extended under following three categories:

- ✓ Loans upto Rs.50,000/- (Shishu)
- ✓ Loans from Rs.50,001 to Rs.5 lakh (Kishore)
- ✓ Loans from Rs.5,00,001/- to Rs.10 lakh (Tarun)

PURPOSE OF MUDRA LOAN

Mudra loan is extended for a variety of purposes which result in income generation and employment creation. The loans are extended mainly for:

- Business loan for Vendors, Traders, Shopkeepers, and other Service Sector activities
- Working capital loan through MUDRA Cards
- Equipment Finance for Micro Units
- Transport Vehicle loans – for commercial use only
- Loans for agri-allied non-farm income generating activities, e.g. pisciculture, bee keeping, poultry farming, etc.
- Tractors, tillers as well as two wheelers used for commercial purposes only.

ELIGIBLE BORROWERS

- Individuals
- Proprietary concern
- Partnership Firm
- Private Ltd. Company
- Public Company
- Any other legal forms

The applicant should not be defaulter to any bank or financial institution and should have a satisfactory credit track record. The individual borrowers may be required to possess the necessary skills/experience/ knowledge to undertake the proposed activity. The need for educational qualification, if any, need to be assessed based on the nature of the proposed activity, and its requirement.

REVIEW OF LITERATURE

Raj Kumar identifies the role of innovative schemes offered by the banking sector in the upliftment of MSMEs in India. They found that Micro, Small and Medium Enterprises' (MSMEs) contribution in the development of world economy has been significant, both in terms of contribution to GDP and creation of employment opportunities. The researchers analyzed the growth in Bank credit for the MSME sector over the last decade. The review showed that the Bank credit has increased significantly for the MSME sector since the priority sector lending norms were implemented but still there is a significant gap that needs to be fulfilled when it comes to the fulfilment of the credit needs of the MSME sector.

Rudrawar, M. A. A. & Uttarwar, V. R. (2016) has explained that PMMY can bring a desired transformation. If it will be applied properly at the bottom level, it may act as a game changing idea and boost the Indian economy. It should include less documentation and easily accessible. In coming few years, MUDRA will play a crucial role for the development of entrepreneurship, increase in GDP and development of employment.

R. Rupa (2017) has showed that the MUDRA scheme is very much successful in Tamil Nadu. It is found that the MFIs have contributed substantially to increase the number of accounts financed under the PMMY.

Patil & Chaudhari, (2016) emphasized that scarcity of finance is the major obstacle for small and micro business sector. To solve this problem, Government of India launched MUDRA Scheme. Through this scheme, Government of India is supporting small and young entrepreneurs. This scheme will be helpful in supporting small and micro sector by proving financial assistance at reasonable rates.

Khadar A & Rahim A. (2018) in the research paper named, “A Study on Roles and Responsibility of the MUDRA Yojana and its Impact Assessment”, examined the beneficiary sectors under MUDRA Yojana. The purpose of this paper was to determine the impact of PMMY. This scheme aims to allocate funds to the non-corporate small business sector. After analyzing the three-year impact, it was found that government funded in a right direction which turns to the well-being of the individuals.

OBJECTIVES OF THE STUDY:

1. To elicit the purpose and eligible borrowers of Mudra Loan.
2. To evaluate the performance of Pradhan Mantri Mudra Yojana year wise on the basis of loan sanctioned.
3. To study the Bank wise performance in Pradhan Mantri Mudra Yojana under three categories i.e. Shishu, Kishore and Tarun Scheme.

RESEARCH METHODOLOGY:

The research is based on Secondary data. The secondary data was gathered from websites, research papers, articles and annual reports of Pradhan Mantri Mudra Yojana.

ANALYSIS AND INTERPRETATION OF DATA:

**Table 1: Performance of Mudra Scheme in India
Total Sanctioned Amount from 2015-2022 (All India)**

Sr. No	Year	Total Amount Sanctioned (Rs. Crores)	Percentage increase/decrease (Year on Year)
1	2015-16	137449.27	-
2	2016-17	180528.54	31.34
3	2017-18	253677.10	40.52
4	2018-19	321722.79	26.83
5	2019-20	337495.53	4.90
6	2020-21	321759.25	-4.66
7	2021-22	240851.07	-25.15

(Source: <https://www.mudra.org.in/>)

From the above table, it's clear that sanctioned amount has been increasing till 2019-20. But it's reduced drastically in the year 2020-21 and 2021-22.

**Table 2: PMMY – Year wise & Category wise Performance
(Amount Rs. In Crore)**

	Shishu		Kishore		Tarun	
	No of A/Cs	Disbursement Amt.	No of A/Cs	Disbursement Amt.	No of A/Cs	Disbursement Amt.

2015-16	32401046	62027.69	2069461	41073.28	410417	29853.76
2016-17	36497813	83891.88	2663502	51063.12	539732	40357.13
2017-18	42669795	104228.05	4653874	83197.09	806924	59012.25
2018-19	51507438	139651.55	6606009	99868	1756871	72291.84
2019-20	54490617	162813.21	6471873	91427.07	1285116	75474.75

(Source: <https://www.mudra.org.in/>)

According to the above table, highest disbursement was made on Shishu category under Pradhan Mantri Mudra Yojana.

Table 3: PMMY – Bank wise Performance (Amount Rs. In Crore)
Financial Year: 2019-2020

	Shishu (Loans up to Rs. 50,000)		Kishore (Loans from Rs. 50,001 to Rs. 5.00 Lakh)		Tarun (Loans from Rs. 5.00 to Rs. 10.00 Lakh)	
	No of A/Cs	Disbursement Amt.	No of A/Cs	Disbursement Amt.	No of A/Cs	Disbursement Amt.
NBFC-Micro Finance Institutions	16832312	49981.32	728425	4617.08	1726	266.14
SBI and Associates	3072304	9322.83	398373	9671.07	205540	15983.86
Public Sector Commercial Banks	2546364	4458.93	1410345	28141.09	348242	26601.41
Private Sector Commercial Banks	18780712	57797.66	1906701	21627.06	179337	11936.87
Foreign Banks	0	0	85	2.95	47	3.61
State Co- operative Banks	58	0.29	64	0.64	0	0
Regional Rural Banks	721610	2336.07	760788	11331.59	40348	3085.35
Micro Finance Institutions	2059118	3000.93	0	0	0	0
Non-Banking Financial Companies	4628174	17070.34	275201	8189.61	191330	14848.7
Small Finance Banks	5849965	18844.85	991891	7845.98	318546	2748.8

(Source: <https://www.mudra.org.in/>)

Above table depicts category wise & bank wise highest disbursement amount:

- Shishu (Loans up to Rs. 50,000) – Highest disbursement amount Rs. 57797.66 Crores by Private Sector Commercial Banks.
- Kishore (Loans from Rs. 50,001 to Rs. 5.00 Lakh) – Highest disbursement amount Rs. 28141.09 Crores by Public Sector Commercial Banks.
- Tarun (Loans from Rs. 5.00 to Rs. 10.00 Lakh) - Highest disbursement amount Rs. 26601.41 Crores by Public Sector Commercial Banks.

Table 4: Performance of Top-10 States in PMMY (Amount Rs. In Crore)
Financial Year: 2019-2020

	Shishu (Loans up to Rs. 50,000)		Kishore (Loans from Rs. 50,001 to Rs. 5.00 Lakh)		Tarun (Loans from Rs. 5.00 to Rs. 10.00 Lakh)	
	No. of	Disbursement	No. of	Disbursement	No. of	Disbursement

	A/Cs	Amt.	A/Cs	Amt.	A/Cs	Amt.
Tamil Nadu	6405139	21216.35	574390	7771.78	141463	5637.89
Uttar Pradesh	5222319	13802.3	542245	8806.14	96858	7192.93
Karnataka	4738832	14019.42	861216	9850.88	133629	5834.4
Maharashtra	4132679	12114.28	505154	7268.66	133199	8015.16
West Bengal	5719620	17357.91	413590	5824.68	43460	3275.71
Bihar	6168244	18074.91	503389	5159.17	43022	3112.9
Rajasthan	2598195	8155.91	295387	5339.93	100952	5870.25
Madhya Pradesh	3063437	9130.35	391333	5173.28	103178	4274.41
Odisha	3410033	9998.52	279463	3211.33	27080	1948.37
Gujarat	1738925	5361.65	263099	4096.8	94369	4071.28

(Source: <https://www.mudra.org.in/>)

Above Table shows the Ranking of the top ten States in disbursement of Pradhan Mantri Mudra Yojana.

Total disbursement amount among all States = Rs.329715.03 Crore

Disbursement amount among Top-10 States = Rs.240967.56 Crores

(73.08% of Total Disbursement amount were disbursed among Top-10 states noted above)

FINDINGS

1. Mudra Loan sanctioned amount has increased from 2015-16 to 2019-20, later on there is a decrease in the sanctioned amount in the financial year 2020-21 and 2021-22.
2. As per 'Overall Performance Report' of PMMY, in the financial year 2019-20 Total sanctioned amount Rs.337495.53 Crores. Out of this Rs.223611.28 Crores for General Category, Rs.34662.08 Crores for SC, Rs.13793.93 Crores for ST and Rs.65428.24 Crores for OBC.
3. As per 'Overall Performance Report' of PMMY, in the financial year 2019-20, out of total disbursement, amount disbursed to Women Entrepreneurs are Rs.145181.87 Crores and to new entrepreneurs Rs.99262.98 Crores.
4. 73.08% of Total Disbursement amount under PMMY were disbursed among Top-10 states.

CONCLUSION

Small enterprises, which are the backbone of Indian economy, must be strengthened and supported. The MUDRA Yojana is the most recent plan in India to help small and micro businesses grow. The Mudra scheme is working hard to enhance the condition of women and other underprivileged members of society, particularly those who are uneducated or semi-skilled. This initiative will improve the well-being of those working in small businesses, which will have a positive impact on the economy as a whole. Mudra is proving to be a very powerful financial tool in its early phases across the country. This will undoubtedly result in a significant transformation and will help in the development of India.

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IMPACT OF COVID-19 ON EVENT MANAGEMENT INDUSTRY

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ABSTRACT

Events are an integral and an essential element of every human life. Event management is use of common ideas for project management by using the latest technology. It needs constant improvement and diversity planning for successful events. Every product's marketing team in general visit events to provide practical information to customers and gaining popularity; although a large budget and major events are planned to create an image of brand / product / organizations and dignity.

If we compare the recent event management industry with event management industry which was one and half decade ago with respect to its scale of operation there is huge jump and today this industry has emerged on a very large scale.

The last 2 years has been very difficult for all the sectors especially the sectors that deal with customer services has suffered a lot. As the rules and regulation from the government were very strict on the public gatherings and there by the Event Management companies hand no business or very small business. The accumulated profits and whatever revenue generated during covid-19 were not sufficient to pay off recurring expenses for such a long period.

Many businesses suffered a huge loss and even a pause on their functionality. This paper focuses to describe how Covid-19 (Corona Virus Disease -2019) - a global pandemic affected the Event Management Industry.

Keywords: Event management, Covid-19, gatherings.

INTRODUCTION

The Event Management Industry has already emerged as one of the fastest growing sector contributing to India's economic growth and development. In the emerging world of Event Management, India has great potential to be one of them. Due to its diverse cultural heritage, abundance of natural resources, and biodiversity, it is helpful to attract foreign travellers to plan an event and visit the country.

Within the past decade the Indian event control industry underwent a dramatic change earlier it was considered as a business of handling wedding ceremony décor and catering, but nonetheless, these days it has been redefined and a business that takes care of every 'going on,' be it private or public. Now people want each occasion to be carried out on a big scale, subsequently individuals and occasion groups need to hire experts from different areas to address the occasions. Various event groups provide big services like coping with, designing, execution, seller control, product launches, and so on. To control non-public or public activities or some other special event, the whole lot wants to hire event organisers. The occasion management sector in India is the quickest growing industry in India. To control non-public sports or public occasions or any unique event, the whole lot needs control. "Social media" emergence has appreciably contributed to this area. Many activities including big-scale occasions, award ceremonies etc. without problems, get highlighted now not best in newspapers or T.V but additionally on multi-dimensional social media platforms through individuals.

REVIEW OF LITERATURE

According to Quinn (2013), events management refers to the "professional business" of managing the uncommon happenings or occurrences in human life.

McCartney believed -Events are essentially an assembly or reunion of people for private or public celebration, ritual or remembrance (McCartney, 2010).

RESEARCH METHODOLOGY

The study is based on primary data collected through direct face to face interview from various wedding organisers, hotel owners, sports clubs and gymkhana.

The secondary data collected from various websites, books, articles and journals.

Types of Events

It can be classified into Commercial events and Non-commercial events. However, it can be categorized in numerous categories as:

- i. Social occasions
- ii. Corporate events
- iii. Entertainment occasions
- iv. Educational activities
- v. Exhibitions and festivals and special activities for clients.

Social occasions events consist of wedding making plans activities, sundowners' events, kitty parties for ladies, anniversaries, birthday events celebrations, flea markets, fund raising activities for charitable trusts for the special organization or non-commercial events, social gatherings, get together, and so on.

Corporate events which may not be on huge scale covers meetings, conferences, off-web sites, opening and closing ceremonies, crew building activities, seminars, webinars, conferences, award functions, brainstorming, annual picnics, and many others.

Entertainment events like movie promotions, concert events, Sunburn track activities, award nights, superstar nights, DJ Nights, song/video album releases, and many others.

Educational events include science festivals, start-up meetings, technical fests, college occasions, annual sports events, annual day, prize distribution, farewell parties, convocation, and many others.

Changes in work culture of Event Management Industry during Covid-19**➤ High Rate Of Cancelled/ Postponed Events**

Most of the public marked the cancellation of events they were booked for and some have postponed their occasions to organise after COVID19 affecting the business and based sectors significantly.

➤ Using Time Productively

Many organizers used this unconventional time to improve their skills and focus more on the digital age and online architecture. Analyse the benefits and software required for online events as well use them to overcome operating costs and meet daily expenses.

➤ Virtual Events

The future of time or means of survival in the event industry in this pandemic are real events. Businesses have the resources to develop constructive events for their online customers using digital medium in this pandemic. The reason is due to the loss of their interest and there is no good escape from COVID-19 address digital issues. As a result, there is an increase in webinars, online chats and live chat record keeping business lively.

➤ Increased Personalisation

The effective outcome for online live occasions is in growth due to the experience of personalisation and simplicity of accessibility to the clients. In conventional occasions, there is a lot of people and large location in the course of performances which affect the joy of customers as they get disconnected due to overcrowding. However, the activities on this COVID-19 have triumph over this hurdle thru the possibility of enjoying the event while staying on their own premises.

➤ Global Presence

Another impact is the reformation of world village or getting close to each other by disposing of border obstacles via this virtual increase. Even though humans are ready to pass this time rapidly the activities and festivals in this online manner has grown new possibilities for groups around the globe and gave a sense of togetherness in these harsh instances.

➤ Modern-Day Advertising Techniques

The effect of COVID-19 on advertising and marketing strategies are properly visible as in this condition when human beings are confined to live at their homes the usage of social media systems has improved and techniques have grown greater purchaser-centric, dynamic and tasty. This leads enterprises to promote extra on these systems and enhance their offerings by claiming to take proper care and sanitization measures. Occasion agencies are also selling their webinars, live events and chats by way of imparting free mask, webinar certificate, engaging audiences via their COVID-19 measures and growing their internet traffics and participation.

➤ Low Charges

This is both positive and negative for the enterprise as digital occasions cost very much less than conventional events which suggest low sales additionally to the enterprise due to the low charges. The usage of these forums impacts the sectors and workers who are completely depending on conventional manner of occasions, leads to their unemployment.

Techniques that helped event Management Companies sustain amid Covid-19

The occasion's enterprise has been badly hit via the Coronavirus Pandemic. Most of the events have become cancelled or postponed, and it has been marked as the largest crisis in the event enterprise. It's a complicated state of affairs for event organizer or occasion planner. On one hand, they have to observe the suggestions of public fitness officials and the guidelines of government to forestall the spread of the COVID-19; on the different hand, they must maintain their event commercial enterprise after lockdown receives over.

➤ Protection of the Occasion Attendees

To make sure the attendees are very secure by way of imparting them with protection kits- the usage of sanitizers, sanitization of the venue, secure tour, taking a registration-journey history, on-name physician, temperature measure, availability of the medical facility, food excellent, carrier body of workers' protection and to follow the suggestions provided via the authorities,

➤ Communication

An Organizer should be accountably sufficient for adequate bulletins and passing important data regarding the precautions to take earlier than attending the occasion to all the participants/ attendees through the usage of different systems like posting on social media, sending and emails, and so forth.

➤ Financial Planning

In an unsure time, it performs a vital role in keeping an eye on regular cash flow. It is the reality that you could now not organize occasions (handiest physical) in this period. To sustain your enterprise long term, you must cut down or minimize your operational prices and marketing budget.

➤ Encouragement

In this difficult time, it does not imply you need to forestall all of your commercial enterprise activities due to cancellation/Postponement of activities. Work from home is the idea that should be used on the most on this time, so the obligations ought to be defined in such a way that can be carried out remotely. Even after the market begins nearly for the planning of an event can be achieved from home till and except the physical meeting is required.

➤ Future Planning

The usage of the lockdown length wisely, and as an alternative of cribbing over the scenario, you could make techniques for future activities which might be to be prepared or may be organized. An Organizer have to consider the distinct thoughts and put into effect in an powerful way to serve their customers/attendees. You may utilize the time accurately for idea generation or for innovative ways that lead to survival within the future

CONCLUSION

The management of any event in any format like professional or personal has its own knock upon human life.

Research shows the different effects of COVID-19 on the event management industry. The main impact of this pandemic is huge losses in the industry due to massive cancellation as well postponement. The pace of the industry is slow and still alive with the help of visual events. Income and staff are very affected and needs money to survive and survive running for a long time. The new leaders of the event industry are working with different techniques such as using visual technology to connect people and get them involved by planning webinars, live chat and interviews, live concerts and artists' podcasts. They advertise these using different alternatives marketing strategies on social media in particular. Therefore, the effect of COVID-19 on event management the industry is complex and needs the support of governments as well as of sponsors but they are still active and trying to survive through the means of virtual events.

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A CRITICAL STUDY ON IMPACT OF COVID-19 ON HOTEL INDUSTRY WITH SPECIAL REFERENCE TO MUMBAI SUBURBAN AREA**Tejashwari Somashekar Dodamani**

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ABSTRACT

This research paper is purely based on Impact of COVID-19 on hotel industry. As far as India is concerned, various innovative policies like "Atithi Devo Bhava", "Atulya Bharat", "Swadesh Darshan" etc. were launched to enhance the growth of tourism sector as hotel industry is largely dependent on this sector. The contribution of hotel industry in the GDP of India was 10% in FY 2018-19. Indian hotel industry is anticipated to grow around \$ 7.5 billion to \$ 16.8 billion from 2019 to 2025. The employment generation of this sector is 48 million which accounts to 8.27% of the total employment of the country. The Indian hotel industry is worst hit due to pandemic which will take at least 2 to 3 years to recover. A drastic decline in the revenue was experienced by all 11 major markets of hotel industry which include Ahmedabad, Bengaluru, Chennai, Delhi, Goa, Gurugram, Hyderabad, Jaipur, Kolkata, Mumbai, & Pune. The study focuses on determining the change in industry patterns along with the revenue impact generated on the sector due to pandemic. To check the hypotheses that a minor change in production price & service quality leads to changes in the hotel industry pattern, a structured questionnaire was distributed to the potential producers across Mumbai suburban. Stratified random sampling method is used to select the sample size. Responses were analyzed using the statistical tools and it was found that the revenue of the hotel industry is reduced. The results display that the producers are struggling between the price and the quality of the services provided by them. The study suggest that the producers should refrain themselves from increasing the price in order to maintain their customer base. Tax benefits should be granted by the government to aid recovery of hotel industry.

Keywords: Hotel industry, Pandemic, GDP, Atithi Devo Bhava, Atulya Bharat, Swadesh Darshan.

INTRODUCTION

Today not only the rich but also the poor individuals visit hotels. Today hotels are pocket friendly to not only high net worth but also to low net worth individuals. After the second world war all the major trade blocks started focusing on growth in trade to grow the economy. Along with the economy growth they started focusing a lot on the tourism sector and hospitality industry. Even today economies of many country of the world are dependent on hospitality industry and tourism sector. The GDP contribution of Tourism sector globally is 9%. The GDP contribution of this sector in Thailand is 17.7%, Malaysia is 13.1%, Singapore is 4.04% and that of Indonesia is 5.86%. Many developing countries are adopting policies to increase the contribution of this sector in the GDP.

As far as India is concerned, various innovative policies were launched to enhance the growth of tourism sector as hotel industry is largely dependent on this sector. Policies like "Atithi Devo Bhava", "Atulya Bharat", "Swadesh Darshan" etc. were put in motion by the government. The contribution of hotel industry in the GDP of India was 10% in FY 2018-19. Today due to the COVID pandemic, all the countries are restricting tourism in their countries as a result of which the hotel industry suffered adversely. Many hotels and restaurants were out of the market which led to growth in unemployment and inflation. hotel industry will become one of the largest world industries. Because of globalization Indian hotel industry has seen tremendous boom in recent years. But due to the pandemic hotel industry now facing down fall. It is basically a critical study on the how pandemic has impacted the hotel industry. The hotel industry is contributing a large on words economics by creating jobs in this industry. It was found that 313 million jobs were created worldwide according to 2017 data. The employee plays an important role in hotel industry. The growth of any hotel is largely depends on the employee of that particular hotel. The most important challenge faced by the hotel industry is Challenges in recruitment Workplace diversity, Shortage of skilled employees, Lack of quality service, Retention of employees And the customers satisfaction. The hotel industry in India is a integral segment of the tourism industry. It was expected that by 2023 the hotel industry will enlarge as the ICC men's world cup will be hosted by India. It was assumed that the event will increase foreign tourists.

➤ LITERATURE REVIEW

▪ **Yangyang Jiyang & Jun Wen (2020):**The researcher has examined the impact of COVID 19 on management and marketing of hotel industry. The researcher concluded that artificial intelligence can be used to deliver services and at the same time grow the industry.

- **Kanwal Iqbal khan, et.al., (2021):**The researcher studied the impact on hospitality industry aroused due to COVID 19 pandemic. The researcher recommended that the management of hotel industry should focus on providing job security & mental stability to their employees in order to ensure smooth functioning.
- **Ishfaq Ahmad Bhat & Musadiq Rehman Beigh (2020):** studied the impact on hotel industry of India due to COVID 19 pandemic. The researcher recommended that managements should avoid termination of the employees because they are the ultimate pillars of hotel industry.
- **Dogan Gursoy & Christina G. Chi (2020):** The researcher has studied the impact on hotel industry due to pandemic. The researcher found that the customers were ready to spend more on hygiene factors to avoid any risk aroused due to pandemic.
- **Oriol Anguera- Torrell, et.al., (2020):** The researcher analysed the impact of economic measures undertaken in COVID 19 pandemic on hotel industry. The researcher recommends that the government should focus on framing & Implementation of economic packages to boost the industry positively.

➤ **RESEARCH METHODOLOGY**

1. Objectives

1. To understand the impact of pandemic on producers of hotel industry in terms of production.
2. To determine the change in hotel industry pattern due to Covid 19 pandemic.
3. To analyze the revenue impact of pandemic on hotel industry

➤ **Hypotheses**

- I. H0: Hotel industry is affected due to pandemic.
H1: Hotel industry is not affected due to pandemic.
- II. H0: Production Cost increased due to pandemic.
H1: Production Cost is not increased due to pandemic.
- III. H0: Food & service quality is increased in pandemic situation.
H1: Food & service quality is not increased in pandemic situation.

➤ **Sample design**

- **Sample size:** Sample size displays the number of respondents selected for the research. It is very difficult to study the whole area at large so selection of sample size is very important in smooth conduction of research. The calculated sample size for study is 278.
- **Sampling tool:** Sampling tool is used in ascertaining the sample size. The sampling tool used in this research to calculate sample size is stratified random sampling. The hotels were divided into different strata.

➤ **Data Collection Method**

This paper is purely based on primary data. The researcher has collected data through structured questionnaire. The questionnaire was distributed amongst the hotel owners of Mumbai suburban to obtain accurate information about the impact of pandemic on the industry. Interviews of few respondents were also conducted to obtain the information.

➤ **Scope of study**

As Mumbai is the financial capital of India so understanding the impact of pandemic on hoteliers of Mumbai region will be more beneficial. The study will create a concrete base for other to carry further research and contribute towards growth of the country's economy.

➤ **IMPACT ON PRODUCTION COST OF HOTEL INDUSTRY :-**

Hotel industry covers numerous activities such as fixed expenses like salaries of the employee's depreciation of fixed assets electricity bill water bill rent maintenance etc. variable expenses like material purchases commissions discounts etc.

Table No.: 01 Average production cost sheet of restaurants as on 31st March 2020 (Before pandemic)

Particulars	Rs	Rs
Fixed charges:		
Salaries to staff	33,36,000	
Repairs	1,23,500	
Depreciation	6,00,000	
Sundries	1,53,500	
Rent	4,44,000	
Insurance premium	62,000	
Total fixed cost		47,19,000
Variable charges:		
Electricity bill	3,60,000	
Cost of material	14,40,000	
Hourly wages	1,20,000	
Transportation	3,00,000	
Total variable cost		22,20,000
Total Cost		69,39,000

Source:- Primary source

Table No.: 02 Average production cost sheet of restaurants as on 31st March, 2021 (During pandemic)

Particulars	Rs.	Rs.
Fixed charges:		
Salaries to staff	19,20,000	
Repairs	28,750	
Depreciation	6,00,000	
Sundries	1,00,500	
Rent	4,44,000	
Insurance premium	62,000	
Total fixed cost		31,55,250
Variable charges:		
Electricity bill	96,000	
Cost of material	20,00,000	
Hourly wages	Nil	
Transportation	5,50,000	
Total variable cost		26,46,000
Total Cost		58,01,250

Source:- Primary source

The fixed charges on an average of restaurants before pandemic was Rs.47,19,000 which decrease and reached up to Rs.31,55,250. The variable cost before pandemic was Rs.22,20,000 which increased and reached up to Rs.26,46,000. The average production cost decreased from Rs.69,39,000 to Rs.58,01,250

➤ IMPACT ON REVENUE OF HOTEL INDUSTRY :-

Revenue is considered to be the blood for hotels which helps not only in increasing the food & service quality but also enables the industry to grow at a faster rate. The study displays the growth in collaboration of hotels with various online food delivery company there by creating a new prospect for the industry. A completely new way of expanding the business is witnessed in pandemic by keeping continued relation with the customer through delivering their desired food at their door step.

Table No.:03 Average revenue of restaurants as on 31st March, 2020

Particulars	Amount
Sales	1,08,00,000
Online 25,20,000	
Offline 82,80,000	

Source:- Primary source

Table No.:04 Average revenue of restaurants as on 31st March, 2021

Particulars		Amount
Sales		43,20,000
Online	28,80,000	
Offline	14,40,000	

Source;- Primary source

The online sales of restaurants before pandemic was 25,20,000 which is increased to 28,80,000 during pandemic. The offline sales before pandemic was 82,80,000 which is decreased to 14,40,000 due to less operating hours during pandemic. The total revenue of the industry was reduced drastically leading to a down fall in the industry.

➤ CONCLUSION

The pandemic has hit the industry severely but at the same time it has also generated new opportunities in the market. It has crushed many beginner's but also created new business opportunities. In this situation the government was expected to provide a strong push to the industry with all its resources but government has squeezed the budget. The allocation of funds in the current budget was reduced from Rs.2,500 crore in 2020- 21 to Rs.2026.77 crore in 2021-22. The increase in cost of material along with the transportation cost has increased the production cost leading to reduction in the income of hoteliers. The efficient utilization of technology has supported in the survival of the industry. Collaborations with the various delivery app has ensured the flow in the industry. The increase in these collaborations has led to an increment in online sales there by displaying the increment in quality of food and service offered.

➤ RECOMMENDATION

- The government should give relaxation in GST rates of hotel industry to revive the industry from the current situation.
- Business loans should be provided at lower interest rates to encourage new as well as existing hoteliers.
- Increment in the fund's allocation for this sector in budget should be done to boost the industry.
- The rates of LPG, fuel & Electricity should be reduced to decrease the cost of production.

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INDIAN BUSINESS CULTURE & WORK –LIFE BALANCE**Prof. Kollannur Neena Paul**

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ABSTRACT

India is a culturally rich and diverse country where one can see varied array of language, religion, caste and regionalism. While doing business in India, every organization has to consider all these factors before formulating their business plans and take necessary actions accordingly. The India Business Culture is an extension of the common culture of the society. It is unique in its own way. However, in Indian business culture, the behavior, etiquette and approach of organizations and its professionals change according to the addressee and the context of address.

Work-life balance in India is like a dream that has never come true. In the metro cities of India, where people often end up commuting for 6 hours a day and then work for another 8-9 hours, work acquaintances are more privileged than families. Even if the commute is not too extensive, the competition is so fierce that performers are the only ones that get rewarded. And the pressure to perform above average ends up taking more hours of employees every day, without getting any extra pay or holiday for the same.

Keywords: Business Culture, Work –Life Balance, Supportive Manager

Objective

1. To understand Indian Business Culture.
2. To understand Work –Life Balance.
3. How to be a supportive manager
4. The rise of the flexible workplace

INTRODUCTION

India has land mass of 3.287 Million km square, land frontier of 15,200 KM and total coastline of 7,517 KM with the various climates. The climate in India embraces a variety of conditions depending on different geographic scale and topography. Based on four sides, Northern side of India is colder because of the Himalayas.

The Eastern side of India can also be chilly because of wind from Himalayas and Tibetan plateau. The Southern and Western sides of India are generally warm. The hot season in Southern and Western part of India has temperatures of between 25–32 °C (77-90 °F), with high levels of humidity. The climate in Southern India experiences only slight seasonal variations. Temperatures and humidity remain relatively high all year round.

Work–life interface is the intersection of work and personal life. There are many aspects of one's personal life that can intersect with work including family, leisure, and health. Work–life interface is bidirectional; for instance, work can interfere with private life, and private life can interfere with work.

Work-life balance is an important aspect of a healthy work environment. Maintaining work-life balance helps reduce stress and helps prevent burnout in the workplace. Chronic stress is one of the most common health issues in the workplace.



Getting to Indian Business Culture

The easiest and fastest way to reach India is by air. As, India is a big country, it has many prime airports which cover the whole country. It also depends on the destination that you choose. Delhi and Mumbai airports are most popular among travelers as major flights are connected from these cities. The Airport is located approximately 30 KM from the India's capital Delhi.

Delhi is the India's second largest city with a population of more than 27 million people. Mumbai stood first in the largest city rankings. Altogether India has 29 states and 7 Union territories. Principle cities of India are Delhi, Mumbai, Ahmadabad, Bangalore, Hyderabad and Chennai.

Economy is Growing

India ranks fifth in the list of world's richest countries with a GDP of 2.264 trillion USD. The economy of India has been progressive since past 5 years. India has a very good relation with other countries, so majority of countries are India's trade partners. India's main import products are agricultural products, oil, petroleum and mining products from the countries such as China, Europe, USA and UAE. While majority export products are Agricultural, IT and manufacturing products to Europe, USA, UAE, Hong Kong and China.

Foreign Direct Investment (FDI) into India is modified by the Government of India to increase inflow. The official language of India is Hindi and official currency is the Rupee. India operates on Indian standard Time that is 5:30 hours ahead of UTC.

Xenophobia: Being a Foreigner

The Indian slogan "Atithi Devo Bhava" means the guest is like a god in our country. It is also a campaign by the Indian government for tourists to give a better feeling of being welcomed in the India. India has one of the seven wonders known as 'Taj Mahal', so that India welcomes tourists with open arm. Indians are known for their helping nature, outgoingness and friendliness. As Indians are very nice and helpful with visitors, foreigners are mesmerized by India's diverse culture, history, food and beauty. India is multicultural and diverse country with a more than 23 spoken languages. In 2016, 14.57 million people visited the India from all across the globe. You can see some Indian tourist statistics here. Foreigners love Indian Food as India has a mouthwatering, delicious and variety of cuisines in each and every part.

International Business in India

People in India are often business minded, so to do business in India you need to be well prepared to experience things that are different from your own culture. Failure to do so may give you a 'cultural shock' which can lead you to undesirable influence of business trades. It is obvious that as an active business person you have time limits to explore cultural differences. Sometimes you find yourself in the meeting room with a new people only after the few hours of landing in a new country. That is why it may be helpful to learn about the Indian business culture before coming in the country.

Education

The country has a strong prominence on the significance of education and training, which is fundamental to Indian culture. Economic effectiveness is comprehended by the knowledge, education and competitiveness. There is free and compulsory education for all the children between the ages 6 to 14. Role of an education is always noteworthy in empowering social mobility. Education in India provided by public sector and private sector. Education in India is overseen by ministry of Human Resource Development. They are investing a lot of money to improve the education system.

Indian Education system follows "10+2+3" pattern, it means that 10 years of study is done in schools which further subdivided into primary education of 4 years and 6 years of high school. Then 2 years in junior colleges, and then graduation for 3 years for bachelor's degree. India is 3rd in the largest higher education system after China and US. There are more than 152 central universities, 316 state universities and 191 private universities in India. Except medical and engineering courses, majority of undergraduate courses last for 3 years. Whereas postgraduate courses are of 1 to 2 years depends on the type of study.

Indian Issues and Transport system

Transport is key to Indian business culture and the mobility of labor in India is relatively high. New Indian generation is exploring the world without the limits. India has more than 50% youth in its population. These youth have a more optimistic approach and are willing to take the risk of starting a new job in a new place. This is epitomized by the high numbers of Indians travelling to all over the world to look for work. As per the official website of the Center for Monitoring Indian Economy (CMIE), there are more than 31 million unemployed Indians trying to be employed. The unemployment rate is 6.1 percent and government is trying to

drop the percentage. Staffing services are progressively common in India. These staffing agencies charge companies for providing work force and staff. Work force provided by agencies are often fresher students and unemployed people looking for job.

When driving around India, people must have to drive on the left side of the road. Driving on the wrong side may cause accidents. There is a wide spread networks across India that includes national highways and state highways.

Travelling by Train

India has one of the largest rail networks that cover majority part of India. There is a time table for each and every train on the website. Anyone can easily book the ticket from <https://www.irctc.co.in/nget/> for the long distance and local rail.

Travelling by Bus

The majority of places in India have an integrated transport system. There are private and government bus services available in India. These bus services differ from state to state but everyone has easy access to bus timetables and its services from its website. Bus website from one state such as <https://gsrtc.in/site/> provide time table to all routes in designated state.

Using the Car

The country has a wide spread and good road network that includes national highway, state highway and district roads. This network makes Indian road network second largest in the world. In India, national upper speed limit for car is 140 kilometers/hour (87 mph) and for bikes its 80 kilometers /hour (50 mph). Seat belts and helmets are compulsory to wear while driving in India.

Work-Life Balance

The work-life balance involves balancing of work-place stress with the routine pressure of family, friends and self. Maintaining a balance between one's personal and professional life has become an important topic in the society of India.

In order to have an effective work-life balance, one should have the flexible working time. Stress level increases when there is imbalance between professional life and personal life. This imbalance can lead to relationship compromise, physical as well as mental well-being. Furthermore, it reduces the efficiency and effectiveness at work.

To balance the life in India, you need to understand your work. It's really important to know your responsibilities, understand your own motivations, aspirations and see if the job fulfills them. This work-life balance needs to be looked in the circumstances of four segments: Family, Self, Work and Friends. Each of these four segments is mutually dependent on one another. Most people agree that they need to change their work priorities assuming that whatever change they make, will give them evasive balance that they are seeking.

The work-life balance in India has always been an issue. In fact, the traditional Indian joint family includes three to four living generations, including grandparents, parents, uncles, aunts, nieces and nephews, all living together under one roof. Although India has a traditional culture from the time that husband earned and the wife stays at home. But coping up with the time now, Husband and wife both earns to fulfill their desires. Careful planning and personal efforts is the advice for those who want to balance career and home life.

The Factories Act has provided annual/earned leave of 12 working days for all the workers who have worked at least 240 days in a year. If a worker takes four or more days leave at a time, his wages are paid before the leave begins.



Working Hours Can Impact the Equilibrium**Opening hours**

Large stores and super markets do not have any standard timing in India. You may find malls and department stores open until 20:00 hours, 7 days a week. One of the important rule to which most businesses in India are subject to is “the shop and Establishment Act”.

The Act includes:

- Hours of work
- Interval for rest and meal
- Prohibition of employment of children
- Opening and closing hours
- Close days
- Weekly holidays
- Leave policy
- Wages for holidays

Most companies start around 9AM and end around 6PM for 5 days a week, Saturday is a half day and on Sunday everything is closed except for restaurants and petrol pumps.

Working times regulation can contribute in favor of the work-life balance

The Indian working times for any organization is regulated by the Factories Act 1948. As per the act, every adult cannot work for more than 48 hours in a week and not more than 9 hours in a day. Work timing includes working hours, overtime, leave, notice pay, working conditions of employees etc. It extends to whole India and applies to every factory. The first set of working hours is from 9AM to 1PM, and the second session starts from 4PM to 8PM. Sundays and national holidays are off for all the factories.

Working culture

The “Namaste” forms an important part of Indian culture and is generally used while greeting and saying goodbye. Work culture is a set of collective beliefs, values, rules and behavior which organization as whole conforms to.

- A good understanding of basic values, beliefs and assumptions of Indian culture and how they apparent themselves in the market and workplace is essential for the success of your business.
- The humble office culture and design has evolved hugely over the past few decades. Along with the modern office design, the culture has greatly shifted to a casual and friendly work environment.
- In India, guests are treated with utmost respect and courtesy. International travelers can expect to enjoy the Indian hospitality. At the same time culturally and as a mark of politeness, Indians have difficulty in saying no.
- It is fully acceptable for strong hierarchy to occur in most Indian organizations. They have high need of structuring relationships, with an aim to attach a set of responsibilities and expectations to a particular person in a senior position.
- The importance of hierarchy in Indian culture can also be witnessed in the daily work environment. People of different management levels are treated differently.
- Indian people are flexible when it comes to punctuality. Arriving at a meeting 15 minutes after the official starting time is not rare.
- In India, it is uncommon to set up an appointment to meet a colleague working in the same organization, unless that person is on senior management level.
- The office space culture in the country today is adopting new and adventures ways of working like co-working or working in shared spaces and virtual offices.
- Indian working hours are flexible as far as IT companies are concerned. Normally office timings go from 9 AM to 5 PM.

- The relationship between boss and employee is rarely close/personal. In general company meeting, only few people dominate, even though their decisions are wrong. However, it may differ from company to company.
- In Indian working culture, people do not accept change easily. Lot of oppositions is encountered in order to implement change.
- Indians have a greater sense of ownership towards work and we value work more than our personal life.
- The Indian dress-code is relatively casual. Male employees will wear trousers and collared shirts to work. A suit and a tie can be added when needed or for the more senior managers. Often female workers wear a colorful salwar kameez. Organizational work culture can either be good or bad. In the sense that good work-culture is one that is beneficial for high level of organizational performance, the indices of which are productivity, profits and growth.

Health Insurance

Medical emergencies come unannounced. To get the best medical facilities in India without a financial burden you will need a health insurance. When health related contingencies strike, then a good health insurance policy acts as a safeguard which gives some sort financial stability. Without health insurance, even those Indian people who are financially stable sometimes find themselves difficult to manage expenses in case of medical emergencies. This shows that despite having resources, urgent needs and lack of planning can put a hole in one's pocket during medical emergencies. Then in such situations health insurance comes to rescue, helping one avail of instant medical treatment when the need occurs. By taking health insurance in India, the possible financial turmoil and risks that health emergencies bring along with them can be effectively tackled.

Out of 1.2 billion of Indian population, only less than 15% of the population is covered with health insurance. The Indian government has made health a priority in its series of five years plans, each of which determines states spending priorities for the coming five years. The health care system in India is primarily administered by the states. In order to address lack of medical coverage in rural areas, the national government of India launched The National Rural Health Mission in 2005. This mission focuses resources on rural areas and poor states which have weak health services. In addition along with financial protection and medical cover, health insurance offers tax benefits as well.

The rise of the flexible workplace

Those who do maintain a successful balance between their often point to their flexible work schedules. Recent research found that in the past seven years, many employers have allowed workers greater flexibility both with their schedule and where they work.

"It is clear that employers continue to struggle with fewer resources for benefits that incur a direct cost," said Ken Matos, lead researcher and senior director of employment research and practice at the nonprofit research organization Families and Work Institute. "However, they have made it a priority to grant employees access to a wider variety of benefits that fit their individual and family needs and that improve their health and well-being."

Flexibility can pay off for employers in the long run. "As we look ahead, it is clear that in order to remain competitive, employers must find ways to offer flexible work options if they want to attract and retain top talent," said Hank Jackson, president and CEO of the Society for Human Resource Management.

"Work-life balance will mean different things to different people because, after all, we all have different life commitments," said Chancy. "In our always-on world, balance is a very personal thing, and only you can decide the lifestyle that suits you best."

How to be a supportive manager

To help managers do a better job of supporting their employees' efforts to achieve a healthier work-life balance, Robert Half Management Resources offers four tips

1. **Know what your employees are striving for.** Not everyone has the same work-life balance goals. Talk to each employee about their objectives, and then determine what you can do to help them. Some employees may benefit from working remotely a couple of days each week, while others may prefer altering their daily work schedule. It's important to be open-minded and flexible.
2. **Set a good example.** Your employees follow your lead. If you send emails at all hours of the day and night or work hard on the weekends, your staff thinks that is what is expected of them, too.

3. **Let employees know what their options are.** While employers typically do a good job of highlighting their work-life balance offerings to prospective job candidates, the same can't be said for communicating those initiatives to current employees. Regularly discuss with your employees the options that are available to them. Also, sit down with soon-to-be parents and discuss parental leave options.
4. **Stay at the forefront.** It is important to keep ahead of the curve on emerging work-life balance trends. What works today for employees might not be a good fit a year from now. Keep your work-life balance initiatives fresh, and offer in-demand benefits. Plus, consider offering work-life programs.

6 Best Work Culture Companies in India Offering Better Work-Life Balance

- Radix Web.
- Tata Consultancy Services.
- Adobe India.
- Godrej Consumer Products.
- Google India.
- Proof Hub India

CONCLUSION

Understanding the culture, work and personal life are not independent spheres of life and that the debate on work- life integration involves culture, employers and working families and understanding their available work-life options. Building an organizational culture that supports through changing the way people think and talk about their work-life balance so that using flexible working options and other work-life initiatives becomes accepted and normal for everyone regardless of their gender, seniority within the organization or personal commitments. Work-life balance practices are seen as employee friendly and socially desirable strategies of a progressive establishment. Therefore, such kind of practices should be considered at par with other strategic HR interventions at future workplaces. However, more empirical research inputs are required to formulate and implement effective human resource strategies for better adaptation and work-life balance of Indian professionals in their respective job set-ups.

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A STUDY ON EFFECT OF COVID-19 ON MANUFACTURING SECTOR IN INDIA**Mrs. Harsha Piyush Anam**

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*Keywords- COVID 19, Economic Impact, GDP Growth Rate, Sectorial Impact, COVID Relief Measures***Objective of the study**

- *To understand impact of COVID -19 on manufacturing sector.*
- *To know Monetary effect of COVID -19 on manufacturing sector.*
- *To understand various measures taken by government.*
- *To know future effects of COVID- 19 on manufacturing sector.*

INTRODUCTION

Manufacturing Industry involves designing, processing, and preparation of products from commodities and raw materials. This includes automobile, chemical, food and beverage, machinery, electronic, and other industries. The manufacturing sector is a major part of the economy as it accounts for nearly 16% of the global GDP in 2018. As a result, the government across the countries primarily focuses on encouraging the manufacturing sector. Certain initiatives in emerging economies to promote the manufacturing sector include Make in India and Made in China (MIC) 2025. MIC 2025 is the first stage of a larger three-step strategy to transform China into a leading manufacturing power. The initiative seeks to move China up the manufacturing value chain by utilizing innovative manufacturing.

In addition, Make in India is an initiative was launched in 2015 to encourage the production of goods in India. This aims to reduce India's dependency on exporting nations by producing goods in their own country. Since the launch of Make in India, FDI in the country has followed an optimal trend. During the period, April 2014 to March 2019, FDI inflow in India was \$286 billion, which is nearly 46.9% of the overall FDI received in the country since April 2000 (\$592 billion). This resulted in owing to the investment-friendly policies. However, after the outbreak of coronavirus, the global FDI inflows has witnessed a sharp decline. As per the estimation by United Nations Conference on Trade and Development (UNCTAD), the COVID-19 outbreak could cause global FDI to shrink by 5%-15%, due to the downfall in manufacturing sector coupled with factory shutdown. The negative effects of COVID-19 on FDI investments are expected to be high in the energy, automotive, and airlines industries. Due to the epidemics of COVID-19 across the globe, the manufacturers of the automobile, chemical, electronics, and aircraft are facing concerns regarding the availability of raw material. In the electronics sector, smartphones and consumer electronics companies have commenced a reduction in production operations and postponed the introduction of new products.

Economists slashed GDP rates for the foreseeable future due to the obvious impact of the lockdown. However, it was also estimated that the country might bounce back quickly because its industry composition, with unorganized markets being largely dominant. Losses from organized sectors amounted to an estimated nine trillion rupees in late March, projected to increase with the prolonging of the lockdown. Unsurprisingly, the most affected industries included services and manufacturing, specifically travel & tourism, financial services, mining and construction, with declining rates of up to 23 percent between April and June 2020.

The pandemic came with uncertainty and implications on all aspects of business across the world. Despite India being ahead of most countries in being able to implement work-from-home measures, specifically in white collar work, job and earning deficits, along with instability in prices was expected. The months of the lockdown resulted in the free fall of employment, which slowly stabilized after the economy reopened in late May in most parts of the country. After zonal segmentation of districts, research showed that the worst affected areas included orange and red zones (districts with higher numbers of COVID-19 infections), and largely the urban economy. Maharashtra, Tamil Nadu and Gujarat were estimated to have the steepest decline in GSDP at an average of 15 percent for the following year.

Segments including consumer retail expected to see sharp falls ranging between three and 23 percent depending on the market. For the big players across segments, this meant operating at less than full capacity to keep afloat. For small businesses, however, it depended on how long they could ride out the storm. Overall, the pandemic changed daily lifestyles drastically.

From a socio-economic standpoint, the pandemic exposed class and caste brutalities in determining who had access to basic healthcare. Even in the face of increasing infections and an economy inching feebly towards its pre-COVID-19 state, the Indian government was optimistic in fighting and containing the virus with minimal affects to the country.

Impact on Various Nations

The outbreak of COVID-19 has impacted nations in an enormous way, especially the nationwide lockdowns which have brought social and economic life to a standstill. A world which forever buzzed with activities has fallen silent and all the resources have been diverted to meeting the never-experienced-before crisis. There is a multi-sectorial impact of the virus as the economic activities of nations have slowed down. What is astonishing and worth noting is an alarm bell which was rung in 2019 by the World Health Organization (WHO) about the world's inability to fight a global pandemic. A 2019 joint report from the WHO and the World Bank estimated the impact of such a pandemic at 2.2 per cent to 4.8 per cent of global GDP. That prediction seems to have come true, as we see the world getting engulfed by this crisis.

In another report entitled 'COVID-19 and the world of work: Impact and policy responses' by International Labour Organization, it was explained that the crisis has already transformed into an economic and labour market shock, impacting not only supply (production of goods and services) but also demand (consumption and investment). International Monetary Fund's (IMF) chief said that, 'World is faced with extraordinary uncertainty about the depth and duration of this crisis, and it was the worst economic fallout since the Great Depression'. The IMF estimated the external financing needs for emerging markets and developing economies in trillions of dollars. India too is groaning under the yoke of the pandemic and as per news reports in Economic Times published on 23 March 2020, the economists are pegging the cost of the COVID-19 lockdown at US\$120 billion or 4 per cent of the GDP (*The Economist*, 2020).

This COVID-19 pandemic affected the manufacturing and the services sector—hospitality, tours and travels, healthcare, retail, banks, hotels, real estate, education, health, IT, recreation, media and others. The economic stress has started and will grow rapidly. While lockdown and social distancing result in productivity loss on the one hand, they cause a sharp decline in demand for goods and services by the consumers in the market on the other, thus leading to a collapse in economic activity. However, lockdown and social distancing are the only cost-effective tools available to prevent the spread of COVID-19. Governments are learning by doing, as it was in the case of success of containment strategy in Bhilwara district, Rajasthan, India, the economic risks of closing the economy remain nonetheless. Similarly, flattening the caseload curve is critical for economy at large, but it comes with an economic cost.

Sectorial Implications of COVID-19 Pandemic in India

Impact on Tourism, Aviation and Retail

The tourism industry is the worst affected due to the COVID crisis, internationally. The World Tourism Organization (UNWTO) (2020) estimations depict a fall of 20–30 per cent in international tourist arrivals. These figures too are based on present circumstances and are likely to increase or decrease in future. Millions of people associated with industry are likely to lose their jobs. In India, the travel and tourism industry is flourishing and is contributing sizably to the economy.

The aviation sector in India currently contributes US\$72 billion to India's GDP. Foreign tourist arrival has been down in the first quarter. The lockdown will have a significant impact on arrivals in the second quarter. If we estimate a conservative 25 per cent decline in the contribution of the aviation sector, it will amount to 18 billion. Railways contributed US\$27.13 billion in 2019 to GDP. A 21-day lockdown period will bring down the revenue by US\$1.56 billion.

The Indian retail industry was worth US\$790 billion in FY 2019. It accounts for over 10 per cent of the country's GDP and around 8 per cent of employment. In the past few years, online retail has seen a very rapid growth and the market projections had indicated a 30 per cent growth in online retail in 2020 (National Investment Promotion and Facilitation Agency, 2020). A month-long shutdown for retail will affect the Quarter 2 revenues. In the retail sector, the suppressed demand has a tendency to revive very fast and this will enable the sector to recover the losses once the lockdown is lifted. Online retail was operational in some parts of the country during the lockdown period and this will help in offsetting some of the losses for the industry.

Impact on GDP Growth Rate

While the COVID-19 pandemic is constantly growing and showing little signs of containment as of 15 April 2020, its adverse impact on economic growth of the country will probably be very serious. The UN warned that the coronavirus pandemic is expected to have a significant adverse impact on global economy, and most

significantly, GDP growth of India for the present economy is projected to decline to 4.8 per cent (United Nation 2020). Similarly, the UN 'Economic and Social Survey of Asia and the Pacific (ESCAP) 2020 reported that COVID-19 would have extensive socio-economic consequences in the region with inundate activities across borders in the areas of tourism, trade and financial linkages (United Nations, 2020).

Economic Survey 2019–2020 had provided advance estimates for growth in real GDP during 2019–2020 at 5.0 per cent, as depicted in Table 1, as compared to the growth rate of 6.8 per cent in 2018–2019. The nominal GDP is estimated at ₹204,400 billion in 2019–2020 with a growth of 7.5 per cent over the provisional estimates of GDP (₹190,100 billion) for 2018–2019. (Economic Survey, 2020, p. 100) On 28 February 2020, the National Statistical Office announced revised estimates of GDP growth, from 8 per cent to 7.1 per cent in the first quarter, from 7 per cent to 6.2 per cent in the second quarter and from 6.6 per cent to 5.6 per cent in the third quarter. Goldman Sachs estimated the growth rate of GDP at 1.6 per cent, declining by 400 basis points because of 21-day lockdown (Goldman Sachs, 2020). In case of a quick retraction of COVID-19 pandemic across the globe by mid-May, KPMG India estimated India's GDP growth in the range of 5.3 per cent to 5.7 per cent. In second scenario where India controls the virus spread but there is a significant global recession, the growth may be between 4 per cent and 4.5 per cent. KPMG India in its report estimated India's GDP growth rate falling below 3 per cent if the virus spreads further in India and lockdown sees an extension (KPMG, 2020). Motilal Oswal research suggests that a single day of complete lockdown could shave off 14–19 basis points from annual growth (Oswal, 2020). Barclays reported the cumulative shutdown cost to be around US\$120 billion, or 4 per cent of GDP (Barclays, 2020). Mr Yashwant Sinha, former Finance Minister of India, estimated the cost of 21-day countrywide lockdown at 1 percentage point of GDP. The global recession and uncertainties of future might make a 2 percentage point decline in growth rate (for 2020–2021) possible.

Table 1. Growth of GVA and GDP at Constant Prices (2011–2012) Percentage

	2017-18 1st RE	2018-19 PE	2019-20 1st AE	Percentage Points Change in growth rate in 2019-20 over 2018-19 (Increase(+)/ Decrease(-))
GVA at basic prices	6.9	6.6	4.9	-1.7
Agriculture and allied sectors	5	2.9	2.8	-0.1
Industry	5.9	6.9	2.5	-4.4
Mining and quarrying	5.1	1.3	1.5	-0.2
Manufacturing	5.9	6.9	2	-5
Electricity, Gas, Water, supply and other utility services	8.6	7	5.4	-1.6
Construction	5.6	8.7	3.2	-5.6
Services	8.1	7.5	6.9	-0.7
Trade, Hotel, Transport, communication and services related to broadcasting	7.8	6.9	5.9	-1
Financial, real estate and professional services	6.2	7.4	6.4	-1.1
Public administration, defence and other services	11.9	8.6	9.1	-0.5
GDP at Market Prices	7.2	6.8	5	-1.8

Source: National Statistic Office, Year 2020

Notes: RE—Revised estimates, PE—provisional estimates and AE—advanced estimates.

Impact on Start-Ups and Micro, Small and Medium Enterprises

Micro, Small and Medium enterprises, which have created more than 90 per cent of the jobs in India, employing over 114 million people and contributing 30 per cent of the GDP (Radhika Pandey, 2020), are at the risk of having a severe cash crunch if the lockdown is extended to 8 weeks. Many of these MSME's have loan obligations and monthly EMI to pay. Many of them might just disappear if their cash cycle is disturbed because of the lockdown, with fixed costs dangling over them in such a situation. They need a moratorium for loan repayments. RBI has released funds to non-banking financial corporations, some of whom provide finance to MSME's. In addition to that, movement of perishable goods is hampered and thus, these businesses stare at huge losses. India cannot have a real and sustainable growth without having a thriving MSME sector. The COVID-19 crisis will also test the resilience of start-ups in India. Start-ups have to rely on cross-border fund raising. Several founders are seeing their businesses grinding to a halt. Receivables are spiralling and they have to undertake painful cost-reduction measures in their ventures. Government will have to make funds available to this sector, as venture capital firms may take a little longer to come and support because of the restricted global capital flows.

Policy and Programme Implications

Fiscal and Monetary Measures

Coronavirus pandemic demands coordinated fiscal and monetary policy measures to deal with it. The fiscal measures include paying the healthcare bill raised by the pandemic. Providing for masks, gloves, testing kits, personal protection equipment, ventilators, ICU beds, quarantine wards, medicines and other equipment would mean a huge increase in healthcare spending. Public spending on healthcare in India is 1.1 per cent of GDP. It is likely to increase in the current fiscal year. The government has declared a relief package of ₹1,700 billion, it will be used to make cash transfers to the poor and vulnerable sections of the society. The sectors that are affected the most, that is, msme and the farms, will be supported by another relief package which will be announced soon. Tourism and those sectors which are integrated with global supply chains will require support. Tax revenues will also drop due to recession. Fiscal receipts could drop by at least 2 per cent of GDP. All these fiscal measures will increase fiscal deficit by 1–1.5 per cent, which is currently at 3.2 per cent, as predicted by economists.

The crisis emerging from the coronavirus spread will pull down investment and consumption demand. Conventionally, the demand side components of GDP account for 72.1 per cent consumption, out of which government consumption is barely 11.9 per cent as depicted in Table 2. An anxiety-induced reluctance to spend is the main threat to economic growth rate. The government will have to increase the spending in order to boost demand. Support to different sectors will have to be given as a measure to boost investment demand. Repo Rate has been reduced by 75 basis points, as part of a loose monetary policy. The federal reserve had cut its interest rate by 1 percentage point and decided to keep it in the range of 0–0.25 per cent in the USA. Monetary policy is less effective in dealing with a pandemic because the problem is not liquidity alone. The disruption of economic activity and the uncertainty of future bring down the investment sentiment. An anxiety-induced frugality among firms and investors wipes out the investment demand.

CONCLUSION

The spiralling and pervasive COVID-19 pandemic has distorted the world's thriving economy in unpredictable and ambiguous terms. But it significantly indicated that the current downturn seems primarily different from recessions of the past which had jolted the country's economic order. Whereas the nations, conglomerates, corporations and multinationals continue to understand the magnitude of the pandemic, it is undoubtedly the need of the hour to prepare for a future that is sustainable, structurally more viable for living and working.

However, every crisis brings about a unique opportunity to rethink on the path undertaken for the development of a human being, community and society. The COVID-19 pandemic has a clear message for the Indian economy to adopt sustainable developmental models, which are based on self-reliance, inclusive frameworks and are environment friendly.

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A REVIEW ON THE BENEFITS OF INVESTING THROUGH MUTUAL FUNDS**Dr. Nitin Agarwal**

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ABSTRACT

The mutual fund performs a key role in the investment pattern in today's world. Now a day's all are involved to have an investment for their future. The majority like to have investments with less risk. Here comes the mutual fund. Because through mutual fund investor can make investments in less quantity and also, it is less volatile. Most of the time it presents a regular go back and no want for marketplace observe using the purchaser itself. The investor simply has to make investments in a few quantities with some professionals and they can take relaxation without thinking its loss. Because the specialist's maximum of the time makes investments the quantity in the shares in which they anticipate a consistent return. The professionals are usually having a watch in the marketplace and they're well versed in this region. So, most people are drawn to a mutual fund for its much less unstable nature of it. This paper will give an insight into a mutual fund and its advantages for clients.

Keywords: Professional expertise, Time consuming, Tax saver

1. INTRODUCTION

A mutual fund is a common pool of money into which investors place their contributions that are to be invested in different types of securities. A mutual fund shareholder or a unitholder is part of the owner of funds' assets. Mutual funds are preferred investment avenues for the majority of customers. They help in diversifying your investments wherein your investments are managed by professional fund managers and investors don't have to be updated with all the market happenings or spend a lot of time researching each stock. Also, your money is managed by professional fund managers. There are lots of benefits of investing in Mutual Funds. Below are the key benefits of investing in Mutual Funds every investor must know.

A mutual fund is a common pool of money into which investors place their contributions that are to be invested in exceptional sorts of securities. A mutual fund shareholder or a unitholder is a part of the fund's assets. Mutual funds are favored funding avenues for most customers. They help in diversifying investments in which investments are managed through professional fund managers and buyers don't have to be updated with all of the market happenings or spend numerous times doing studies on each inventory. Also, your cash is controlled by professional fund managers. There are masses of blessings of investing in Mutual Funds. Below are the key advantages of investing in Mutual Funds every investor ought to realize.

2. REVIEW OF LITERATURE

K.R. Mary Jasmine & Dr. S. Rabiyaathul Basariya (2018) in their paper state that the mutual fund performs a main position within the funding sample in nowadays world. Now a day's all are interested to have an investment in any form. And most people want to have funding with much less hazard. Here comes the mutual fund. Because for mutual finances most of the time the investor can invest less amount and additionally, it's much less risky. Most of the time it affords a steady go back and no need for marketplace examination by means of the consumer itself. The consumer simply has to make investments some amount with a few experts and they can take relaxation without thinking its loss. Because the professional's maximum of the time makes investments the amount inside the shares in which they assume a regular return. The experts are usually having a watch available on the market and they are properly versed in this area. So, the general public is attracted to mutual budget for its much less volatile nature of it. This paper will provide perception into mutual price range and their blessings for the patron

Bilal Ahmed Pandow (2017) in their paper states that the Indian mutual fund business has come a long way since its commencement in 1963. The industry has seen sufficient growth on all parameters be it; the number of fund houses, number of schemes, funds mobilized, assets under management, etc. One of the significant goals of the mutual fund industry is to attract and mobilize a key portion of the House Hold Savings (HHS) to allow the small savers to benefit from the economic growth by enabling them to park their savings into the assets which yield better risk-adjusted returns. Though the mutual fund industry has recorded significant progress on all fronts it has not been able to use its potential fully. On nearly all parameters it is far behind the advanced economies and even most of the developing economies of the world. The industry is tested with several challenges like low penetration ratio, lack of product differentiation, lack of investor awareness and ability to communicate value to customers, lack of interest of retail investors towards mutual funds, and evolving nature

of the industry. Based on the analysis the study proposes that if the industry has to utilize its potential fully, it has to address these challenges.

3. OBJECTIVE AND RESEARCH METHODOLOGY

The objective of the study is to identify the benefits of investing through Mutual Funds and different types of mutual funds available for the investor. The research is based on secondary data. Information was collected through various sources such as journals, articles, and websites of mutual fund houses

4. BENEFITS OF INVESTING THROUGH MUTUAL FUNDS

- **Diversification:** One of the most blessings of investing in mutual funds is diversification. It is the manner of spreading given funding over numerous assets classes. Diversification facilitates us to create a mixed portfolio that separates the headwinds skilled in various sectors. Money is invested in a mixture of property in line with one's risk urge for food. For example, an equity-oriented mutual fund might normally include 60-70% investments in equities and the ultimate 30-40% in debt securities. As referred to in advance, diversification helps us lower the risk related to exceptional asset training. This suggests being useful while an underlying factor of a given mutual fund stories marketplace headwinds. With diversification, the risk related to one asset magnificence is countered via the others. This way, you don't lose out on the whole value of your investment if a specific issue of your portfolio is going through a turbulent duration.
- **Professional Management:** A lot of investors do not have the time to conduct their research and purchase stocks. This is wherein professional control becomes pretty useful. Several people spend money on mutual funds for the expert knowledge it offers to at least one's investments. A fund supervisor continuously monitors investments and adjusts the portfolio therefore to meet its targets. This professional control is one of the most crucial advantages of a mutual fund.
- **Tax Benefits:** tax blessings related to a particular type of mutual fund are perhaps what draws maximum buyers to this funding vehicle. To inspire investments in mutual funds, the Government of India offers several tax benefits. For example., investments in Equity-Linked Saving Schemes (ELSS) qualify for tax deduction under Section 80C of the Income Tax Act. One can make investments as much as Rs1.5 lakh in this tool to avail a tax saving of about Rs46,800 (assuming the very best slab of profits tax i.e., @30% plus fitness & training cess 4% except the surcharge as applicable) on their taxable earnings. The handiest caveat here is that the tool comes with a lock-in period of 3 years, because of this you could not be capable of getting admission to the invested funds at some point of this period.
- **Highly Liquid:** One can effortlessly promote a mutual price range to satisfy their economic needs. Upon liquidation, the money is deposited into your bank account in a few days. Additionally, there is a mutual budget that provides faster disbursal. They are referred to as funds having an immediate redemption facility, in which the cash is transferred to your bank on an equal day.
- **Higher Return on Investment:** All investors aim to obtain a higher Return on investment using investing in financial units which include mutual funds to overcome inflation and boom their wealth in the long term. Mutual funds have more potentialities of doubtlessly imparting excessive returns through the years as you will put money into a numerous variety of sectors and industries.
- **Well-regulated:** All mutual funds are regulated by the Securities and Exchange Board of India (SEBI). This way each mutual fund house is required to observe the numerous mandates as laid down via SEBI. This, in turn, protects the interest of the investor. Moreover, SEBI makes it obligatory for all mutual funds to reveal their portfolios every month.
- **Easy Investment:** It is very easy to invest in mutual funds, i.e., you can do this either online or offline. You simply need to visit your Asset Management Company's (AMC) website and submit the necessary documents to start on your investment journey. Moreover, you can also visit your AMC in person and sign the physical documents to get started. This ease of investment makes mutual funds are a preferable avenue It is very easy to invest in mutual funds, i.e. You could try this both online or offline. You need to visit your Asset Management Company's (AMC) internet site and submit the essential documents to start your investment journey. Moreover, you can additionally visit your AMC in person and sign the physical documents to get commenced. This ease of investment makes mutual funds the best investment tool.

5 TYPES OF MUTUAL FUNDS

- **Open-Ended Funds:** These are funds in which units are open for purchase or redemption throughout 12 months. All purchases/redemption of those fund units is accomplished at prevailing NAVs. Those funds

will permit investors to hold investing as long as they want. There are no limits on how tons may be invested in the fund. They additionally tend to be actively controlled which means that there may be a fund manager who picks the locations wherein investments will be made. These budgets additionally price a rate that can be better than passively managed funds due to the active management. They are an ideal investment for those who need investment alongside liquidity because they may be no longer bound to any particular adulthood intervals. This way investors can withdraw their price range at any time they need as a consequence giving them the liquidity they want.

- **Close-Ended Funds:** These are funds wherein units can be purchased simplest all through the initial offer duration. Units may be redeemed at a specific maturity date. To offer liquidity, these schemes are frequently listed for trade on a stock exchange. Unlike open-ended mutual funds, as soon as the units or stocks are sold, they cannot be bought again by the mutual fund, rather they need to be offered thru the inventory marketplace on the prevailing fee of the stocks.
- **Interval Funds:** These are funds that have the features of open-ended and closed-ended funds in that they've opened for the repurchase of stocks at different intervals during the fund tenure. The fund control agency offers to repurchase devices from current unitholders at some point in those periods. If unitholders want to, they can offload shares in the desire of the fund.
- **Equity Funds:** These are funds that put money into equity shares of companies. These are considered high-risk funds however also tend to provide high returns. Equity funds can consist of forte funds like infrastructure, fast-shifting patron items, and banking to call some.
- **Debt Funds:** These are funds that invest in debt instruments e.g., company debentures, government bonds, and other fixed-income assets. They are considered safe investments and provide fixed returns. These funds do not deduct tax at the source so if the earning from the investment is more than Rs. 10,000 then the investor is liable to pay the tax on it himself.
- **Money Market Funds:** These are funds that invest in liquid instruments e.g., T-Bills, Commercial Papers, etc. They are considered safe investments for those looking to park surplus funds for immediate but moderate returns. Money markets are also mentioned as cash markets and come with risks in terms of interest risk, reinvestment risk, and credit risks.
- **Balanced or Hybrid Funds:** These are funds that invest in a combination of asset classes. In some cases, the proportion of equity is higher than debt while in others it is the other way round. Risk and returns are well-adjusted out this way. An example of a hybrid fund would be Franklin India Balanced Fund-DP (G) because in this fund, 65% to 80% of the investment is made in equities and the remaining 20% to 35% is invested in the debt market. This is so because the debt markets offer a lower risk than the equity market.

CONCLUSION

The Indian mutual fund industry has come a long way since its inception in the year 1963. The industry has witnessed sufficient growth on all parameters be it; the wide variety of fund houses, number of schemes, fund mobilization, assets under management, etc. The mutual fund industry, in the beginning, consisted of UTI mutual funds only, but these days the industry consists of all three sectors viz. public sector, private sector, and foreign fund houses. The fund houses which had been just 31 in 1997-1998, have grown to 44 funds. Similarly, the quantity of schemes in operation has grown from 235 in 1997- 98 to 131 schemes at a compound boom rate of 14 percent. The fundamental schemes in operation are regular Income Schemes which account for fifty-two percent of the total schemes, observed with the aid of Growth Schemes with 29 percent of the total schemes. ELSS is the only scheme that has recorded poor growth during the period

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BIG DATA AND CLOUD COMPUTING IN FINANCE: A REVIEW OF THE LITERATURE

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ABSTRACT

In the last few decades, financial markets and big data is a field concerned with ways for analyzing, methodically information extraction from, or otherwise dealing with volume of data that are too enormous or complex for traditional data-processing application software to manage.

Cloud computing is a critical component in addressing the issues associated with shared computer resources such as computation, storage, networking, and analytical software. [14] The financial sector has a significant influence on the assessment of big data events. Since then, the financial sector deals with hundreds of millions of transactions per day. Financial analysts and experts perceive it as a growing concern in data management and analytics for a variety of financial products and services. [10] The Financial Services industry is transforming by cloud computing and big data. Companies in the space must innovate and adopt new ideas as technology evolves, bringing new opportunities as well as new hazards. The purpose of this study was to show the current state of Big Data and Cloud Computing in various financial sectors its influence, with a focus on banking, financial markets, and financial institutions, as well as the relationship between cloud computing and finance on the internet, financial management, internet credit service firms, risk analysis, and financial application management are all terms that come to mind when thinking of the internet. and how they are driving change in these financial sectors as many financial services firms are beginning to use the cloud to process large amounts of data.

Keywords: Big Data, Cloud Computing, Finance, Prediction, Transactions

1. INTRODUCTION

Technological advancement has become intertwined with whatever a person does. Big data technology has been ingrained in the financial services business, and it will continue to fuel future innovation. [10] Due to millions of card transactions, stock market transactions, loans, and insurance paperwork and payments, the finance business creates an incredible quantity of data on any given day. One of the most significant advantages of migrating to the cloud is storage. We want to investigate the benefits and risks of Cloud Computing and Big Data in the Financial Industry.

Therefore two Questions will be Assessed:

- 1) How does cloud computing smooth out the process of big data in the financial sector?
- 2) What risks will emerge while using the cloud for big data in the financial sector?

The paper begins by defining the terminologies that will be used throughout the study and proceeding to the literature review and then we will get the answers for these questions based on the literature review.

2. KEY TERMS AND CONCEPTS**2.1 Big Data:**

An aggregation of data sets is referred to as "big data." that are so enormous and quite difficult to use standard data processing tools or on-hand database management solutions to process. [9]

Capture, curation, storage, search, sharing, transfer, analysis, and visualisation are some of the challenges. [9]

Another method of attempting to comprehend Big Data is to look at the often used Big Data criteria, which may be summed up in three V's:

2.1.1 Volume – The first characteristic of a big data is called volume and this is nothing but called scale. So, the enterprises are basically our growing and generating the data of all types and the size typically goes beyond terabytes then we'll be categorized as a huge volume and that basically is require different technology, which is called big data and for the computations. For example, if there are 12 terabytes of tweets, which are created every day, and which need to be analysed, to for the sentiment analysis.

2.1.2 Velocity – The frequency with which fresh data is generated & save, for example: every card transaction logged in data centres and data warehouses throughout the world. [2]

2.1.3 Variety – The data's heterogeneity and the mess it creates, such as movies, clickstreams, comments, numerical data, and transactions, results in data with no discernible structure. [2]

Veracity and Value are now commonly regarded as two more V's of Big Data. These two Vs refer to the fact that when large amount of data is gathered, the data's reliability and value are called into doubt.

Both structured and unstructured data are included in Big Data. Structured data is easier to accept than unstructured data since it follows a pattern and typically contains well-organized information. Unstructured data, in a nutshell, is anything else: a tangle of "loose" data in the form of streams from social media, audio, location services, and Internet of Things technologies.

2.2 Cloud Computing (CC) : [2]

In today's company, cloud computing refers to the use of flexible infrastructure. CC, according to IBM, is the distribution of on-demand computing resources. For businesses, this means storing, managing, and processing data on offshore shared servers through the internet rather than depending on local servers and computers that require frequent maintenance. The ability to use the cloud with flexibility appealed to business customers for the following reasons:

- 2.2.1 On-Demand Service** – When you need it, utilize it. Customers have some flexibility as a result of this.
- 2.2.2 Network Access** – Accessible via computers, desktops, and smartphones, it makes use of the internet.
- 2.2.3 Pooling of Resources** – Customers can customise variable charges based on their business size via pooling resources.
- 2.2.4 Scalability** – Increase or decrease the size of the scale depending on your existing needs.

CC is a type of computing that uses the cloud. Depending on the demands of the customer, service providers provide several service models. SaaS, PaaS, and IaaS are the three service models.

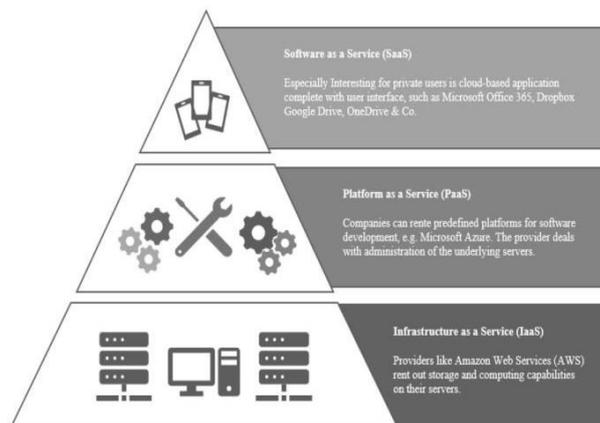


Figure1: SaaS, PaaS, IaaS Pyramid Model.[2]

2.3 Financial Data:[11] Financial data consists of tidbits of data on a company's financial well-being. Management inside the company examines performance of the company with the data to see if any methods or plans need to be adjusted.

2.3.1 Financial Vendor Data:[11]

A financial data provider provides market data to financial institutions, traders, and investors. Stock exchange feeds, brokers and dealer desks, and regulatory filings are among the sources used to compile the data.

Vendors of market data include:

Data from public markets is sold by five different categories of market data providers:

- a. Exchanges
- b. Hosting providers
- c. Ticker plant providers
- d. Feed providers
- e. Software providers

3. LITERATURE REVIEW

3.1 The application of big data in financial services in the real world:[1]

Most organisations are still in the early stages of big data strategy and development, according to a Big Data Work survey. Banking and financial companies around the world are on par with their cross-industry peers.

While 26% of banking and financial markets organisations are focused on understanding the ideas (compared to 24% of all firms), the majority are either establishing a big data roadmap (47%) or conducting big data pilots and implementations (27 percent).

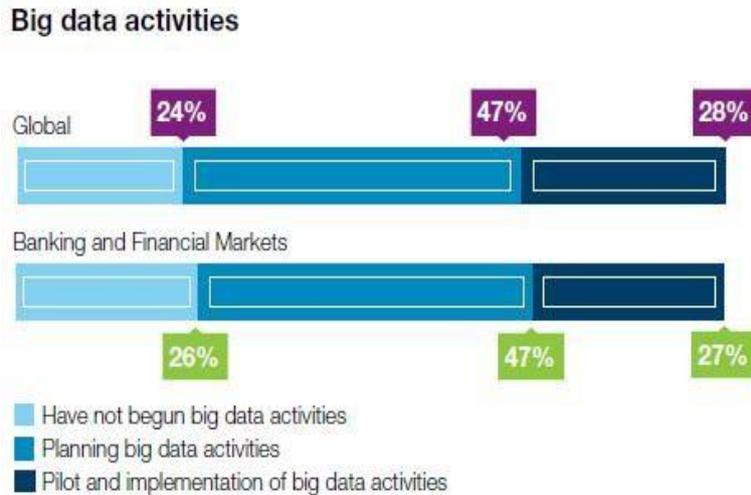


Figure2: Creating a plan for big data or piloting the use of big data in the process.[2]

The following four important conclusions from this study indicate how financial services businesses are approaching big data..

3.1.1 Big data initiatives are being driven by customer analytics.

Today, data insights, operations, technology, and systems must all centre around the customer. By strengthening their ability to foresee changing market conditions and client preferences, financial markets organisations may be able to provide innovative customer-centric products and services to quickly seize market opportunities while boosting customer service and loyalty.

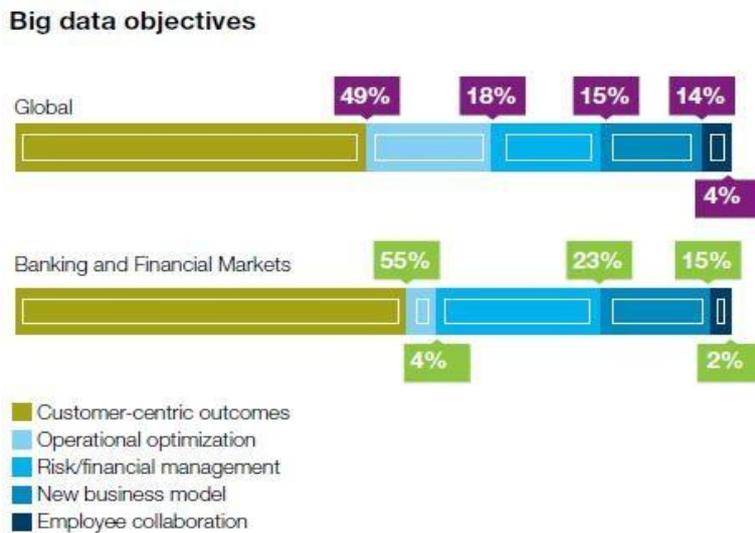


Figure 3: Financial services firms are focusing their big data efforts on creating customer- centric outcomes.[1]

3.1.2 A scalable and adaptable information base is required for big data.

Big data's promise of delivering meaningful, measurable commercial value will only be achieved if companies build an information foundation that can accommodate the fast increasing amount, diversity, and velocity of data. In the survey, respondents with active big data efforts were asked to explain the current state of their big data infrastructures. Despite the fact that 87 % stated they are equipped with the necessary resources. to handle the growing volume of data, only slightly more than half of banking and financial markets organisations said they have integrated data. The incapacity to link data across organizational and department divisions has been a business intelligence challenge for years.



Figure 4: Efforts in big data require a scalable and extensible infrastructure. [1]

3.1.3 The first focus of big data activities is on gathering insights from existing and new internal data sources

The majority of big data initiatives from the beginning concentrated on obtaining and analysing internal data, which they realised is also accurate in financial services & banking. According to the poll, internal data was the primary source of big data in more than half of banking and financial markets respondents' organisations. This shows that financial services companies are utilising a practical approach to big data adoption, and that these internal systems still have a lot of untapped value.

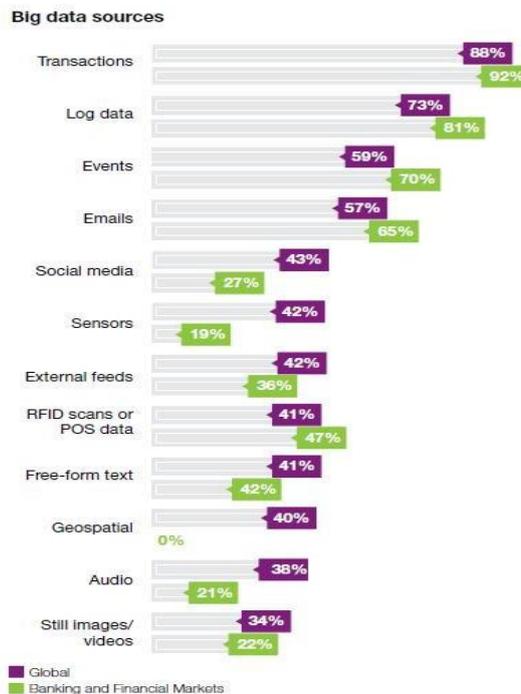


Figure 5: Initial big data efforts focused on internal data sources. [1]

3.1.4 Big data necessitates advanced abilities to think critically.

Big data is only useful if it's used to solve real-world problems. This demands more and more diverse data access, as well as sophisticated ability to analyse data that include both the tools and the expertise to apply them.

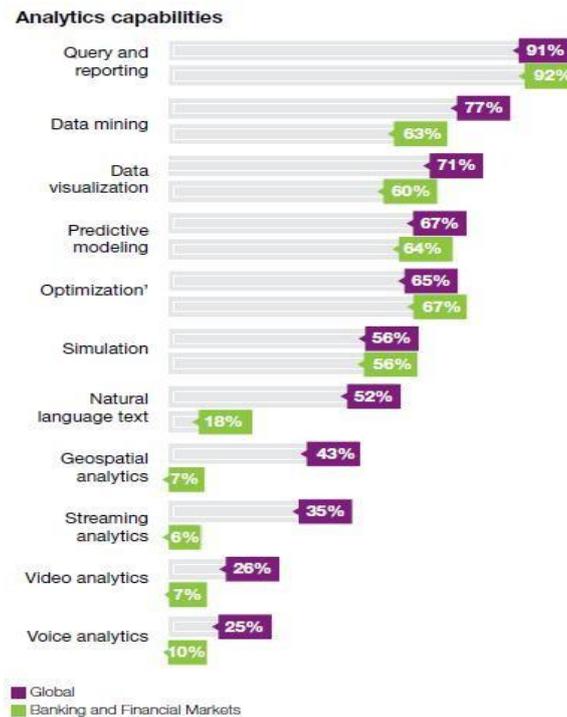


Figure 6: In terms of critical analytical capabilities, financial services organisations lag behind their cross-industry peers. [1]

3.2 How are big data and cloud computing helping the financial sector?[2]

Simple automation to complicated decision-making tools are all examples of financial technology applications. Many of these apps rely on big data and necessitate the purchase of cloud infrastructure and analytics software. Overall, the application of Big Data in accounting appears to be lagging; aside from anecdotal evidence, there is no academic scientific study to refer to. At this point, the focus is on determining the potential impact of Big Data on management accounting, financial accounting & auditing. In general, using Big Data in accounting will be disruptive because it will entail a significant shift in knowledge and the way traditional accountants work. Traditional data registration responsibilities will become obsolete, as will management accounting practices. Asset assessment, cost analysis, forecasting, and budgeting will all be aided by Big Data technologies in the near future.

3.3 What is Big Data in Finance Research? [3]

The major goal of this project was to describe the qualities that may be used to characterise big data in financial research. Those properties are large size, high dimension, and complex structure. **Large size:** Size reference to size would be difficult, as the phrase "Big Data" implies. This characteristic indicates that the data is enormous, either in absolute or relative terms. Market microstructure data at the transaction level is a good example of absolute size. Subsampling or aggregating observations into categories, or capturing snapshots of activities in time series, can help decrease large datasets.

High dimension: However, "Big Data" is more than just a matter of volume. In regard to the sample size, the second feature implies that the data comprises a big number of variables. In regard to the sample size, the second feature implies that the data comprises a big number of variables & becoming more widely employed in finance research.

Complex structure: Finally, the data is not in the traditional row&column format, which is an important consideration. Unstructured data includes text, images, videos, audio, & voice. If unstructured data can quantify economic actions that aren't captured by structured data, they have value. By definition, unstructured data is generally high-dimensional. The first step in data analysis is usually extracting characteristics from unstructured data, which is often done using deep learning and computer science techniques.

Overall, as the aforementioned qualities demonstrate, big data is about more than just the amount of the data. Increased availability and capabilities of handling enormous datasets, advancements in approaches to cope with high dimensionality, and the creation of complex datasets with novel methods for processing them have all contributed to the rise of big data in finance study.

3.4 Cloud supported big data [4]

The goal of this research is to evaluate the performance of Amazon, Google, IBM, and Microsoft cloud-based big data enterprise solution frameworks for Big Data Analytics, Big Data Storage, and Big Data Warehouse on the basis of several characteristics such as software mode, datatype, data sources, operating system, and others. This comparison's primary objective is not to denigrate any of the cloud-based big data tools. However, the goal is to show that each has a wide range of applications in diverse sectors.

In this section, three tools are chosen from the stated main suppliers for Big Data Analytics, Big Data, Storage, and Big Data Warehouse, along with their succinct features and benefits.

1. Amazon Web Services (AWS) (AWS)AWS offers a variety of BDA frameworks that make developing and deploying BDA applications simple and quick.
2. Google Cloud Platform offers a number of useful tools for a variety of tasks, including big data analytics, data warehouses, database and storage, and much more.
3. The IBM cloud provides a wide range of cloud-based Big Data services, as well as precise tools for precise jobs, such as Big Data Analytics Framework, networking, and monitoring.
4. Microsoft Azure provides a diverse set of cloud services that benefit both developers and IT professionals for building, deploying, and managing applications ranging from mobile apps to ISC (Internet- Scale Computing) solutions, all through its global grid of datacenters and with the help of DevOps and integrated tools.

3.5 Benefits and Risks of Cloud Computing from the Perspective of a Decision Maker [5]

Benefits	Risks
Higher availability	Performance failure and poor performance
Independence of the employees and reduction of workload	Inappropriate Software license and pricing models
Financial benefits	Limited and standardized functionality
Scalability	Loss of unique selling propositions
Faster Time-to-Market (in standard services)	Strategic dependence from the provider
Central administration and data storage (Private-Cloud)	Lack of strategic flexibility
Higher technical flexibility	Security risks through bank and provider employees
Better controllability of the IT	Data and Server location uncertainty
Contractually determined service quality (SLA)	Dependence of the security implementation by the provider
Focus on core business and higher innovation capacity	Third party access
Possibility to use technology and know-how from the Provider	Concerns about the data sensitivity
Security advantages through Cloud-Computing	Violation of government requirements
Personal benefits	Loss of benefits
	Loss of image
	Performance issues
	Contractual risks
	Availability risks
	Insufficient client separation
	Financial risks

Figure7: Advantages and Drawbacks ofC-C [5]

The advantages of CC appear to be similar to those mentioned in the context of outsourcing. The dangers, on the other hand, suggest to a strong focus on data privacy and security concerns. These results are in line with previous outsourcing and CC research. The claimed financial benefits are the primary motivations for using cloud computing. The main reason for a choice to use CC appears to be financial concerns rather than strategic considerations. Security issues are the primary reasons for not using Cloud computing. Third-party access and disloyal provider staff, as well as the provider's security implementation, are all crucial.

3.6 Use of cloud computing in finance [6]:

The financial sector is in the process of embracing cloud computing to take advantage of the aforementioned benefits. As crucial as boosting security, cutting expenses, and increasing organisational flexibility are new possibilities for customer service delivery that satisfy their needs and expectations. Cloud can also help traditional financial services firms compete with FinTech market entrants by opening new markets and enabling them to develop new methods to compete. This article intends to help financial organisations gain a better knowledge of cloud computing. Considering the complexities of both the technology and the banks' meticulous integration of it into their business procedures.

The usage of the cloud is now widely known among European businesses, despite the fact that it is new and continually changing on a technological level. In recent years, businesses have become more familiar with subscriptions to software housed at CSP facilities, thanks to the adoption of SaaS models. Cloud computing adoption by EU businesses has increased fast in recent years, according to Eurostat. While it remained at 19 percent in 2014, it grew to 21 percent in 2016. In 2018, cloud computing services were purchased by 26% of EU businesses with at least 10 employees.

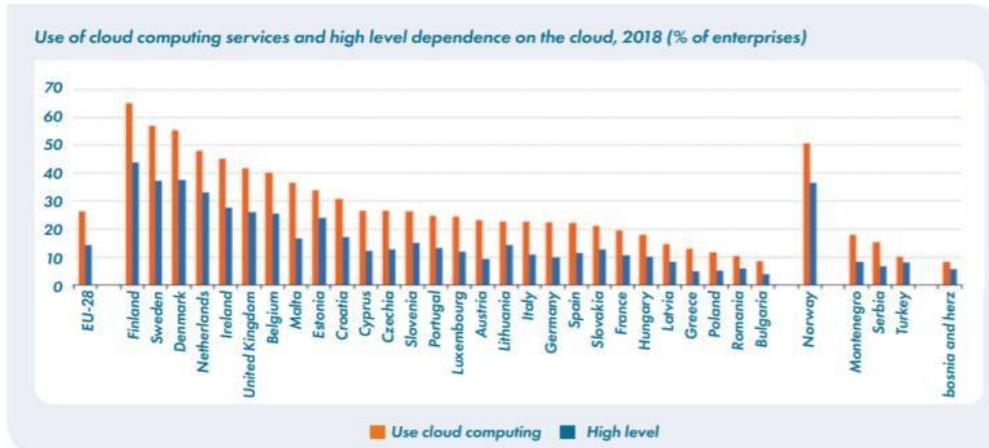


Figure8: The use of cloud computing services and a heavy reliance on it.[6]

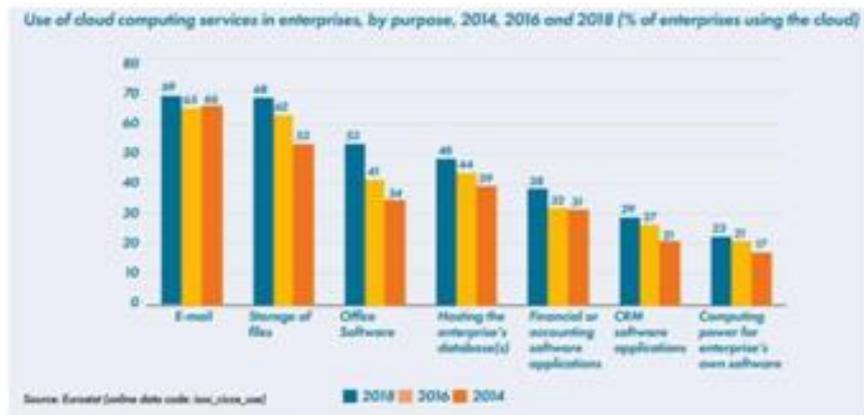


Figure9: Use of Cloud Computing services in enterprises. [6]

The financial industry's deliberate use of cloud computing should take into account the following hypotheses:

- Appropriate standardisation of technology components and services, as well as interfaces and controls, can enable globally understood technology components and services., frictionless, and secure interconnection, as well as appropriate separation amongst cloud_ready networks.
- A gradual cloud adoption plan uses well- understood service models and use-case scenarios to achieve the highest level of abstraction feasible from technology resources.

3.7 Big Data's current and future impact on financial services [7]

It is difficult to predict what the future holds. Thankfully, most of the technology that has the potential to transform financial services already exists and is undergoing its own transformation. The following are the three primary topics that will be discussed in the document:

- **Big Data:** Data availability and volume for users has increased, some of which is generated and submitted proactively by people, and few of which is produced by tracking how they act.
- **The Internet of Things:** Sensors and networked devices will increasingly surround consumers. The smartphone was one of the first "Internet of Things" gadgets, but the number of "things" gathering data on users will skyrocket as home appliances and wearables become more common.
- **Artificial Intelligence and Algorithms:** To analyse the huge amounts of data & interpret them in an usable fashion, algorithm and artificial intelligence breakthroughs will be required. Algorithms will be able to detect "patterns" of behaviour across billions of data entries and databases in the future. The following are some of the potential benefits of using Big Data and associated technologies in financial services:

- **Enhanced security and transparency:** Blockchain-based technologies have the potential to totally transform the financial industry. Rather than secrecy & complex, non transparent processes, monetary transactions might become "public" and open using Block Chain technology.
- **Speed:** Money transfers, lending decisions, and insurance policy approvals are just a few of the typical financial activities that take time. Using Big Data and algorithms, those procedures might be considerably accelerated, offering consumers immediate access to things they may require.
- **Faster innovation cycles:** Monetary service companies will be able to adapt to market developments much faster utilising Big Data analytics, offering new solutions that consumers may "need" much sooner..
- **Budgetary management, financial assistance, and guidance:** For real-time analysis of consumer data, financial advice in terms of financial investment and money management, product comparison or finding/recommending products that best meet consumer demands, and empowering customers to manage their budgets more responsibly are all examples of financial advice, warning them of budget shortfalls and the possibility of future financial problems, are all possibilities.
- **Over-indebtedness prevention:** Providers of financial services may be able to detect spending behaviours that are harmful or other financial issues in a customer's budget, allowing them to identify difficulties early and avoid spiralling into debt.
- **Customized services:** Financial products may move away from "bulk" opportunities, which are made available to all clients at same time and with the same terms and conditions, and toward individualised goods based on customer data.
- **Fraud prevention:** Fraud can be avoided by detecting it early, if not immediately of suspicious conduct by getting a deeper understanding of consumer behaviour.
- **Boosted competition:** Financial services digitalization may improve low-competition national markets, forcing them to produce better products in order to compete with newer financial offerings. Big Data analytics projects that benefit consumers and are within their control should be promoted. Consumers may, e.g. using Big Data analysis for the purchasing habits to estimate upcoming expenses and obtain financial advice. In a couple of seconds, consumers may utilise algorithms to shop for the "best" deal.. Algorithms can be used by consumers to assess their own particular risk based on their financial circumstances.

4. RESULT

How does cloud computing really smooth out the process of big data in the financial sector?

What problems could have arisen if data lakes had been stored locally rather than in the cloud? Storing data in on-premise warehouses could complicate things even more in the case of a disruption to operations, as there is always the risk of losing data or having data transactions disrupted.

Cloud computing can effortlessly connect banks with other financial institutions, clients, and FinTech innovators, making it a critical enabler for a successful data economy and service delivery. Cloud-based big data solutions boost scalability and flexibility, integrate security across all business applications, & first and foremost, provide a more efficient approach to big data and analytics. The capacity to quickly build up big data infrastructure in a scalable environment is one of the most essential benefits of a cloud-based approach to big data analytics. Businesses would have to build their own infrastructure if they used a big data cloud service. Financial companies can save excessive capital expenditures as well as huge upfront infrastructure costs by using the cloud.

What risks will emerge while using the cloud for big data in the financial sector?

In addition to all of the potential benefits of data science and big data for financial organisations, there are certain negatives to consider. Banks and other organisations must address security issues at every step when they develop new processes and technology to handle and analyse data. Security problems, as well as data privacy, are major concerns. The advantages of cloud computing – broad network connectivity, on-demand service, and resource sharing – have made it popular. Because many systems are still in their infancy and security rules aren't fully developed, this raises a slew of privacy and security concerns. Security monitoring must continue to be improved. Because we are still in the early stages of working with big data, financial institutions must carefully establish this ecosystem to minimise any potential security or privacy breaches. While cloud computing promotes financial innovation, identifying and quantifying the risks associated with new technologies can be difficult.

5. CONCLUSION

This survey covers an in-depth understanding of Big Data, CC, and finance. CC can effortlessly connect banks with other financial institutions, clients, and FinTech innovators, making it a critical enabler for a successful data economy and delivery of service's. CC's ubiquitous and secure use – which benefits both customers and banks – is in line with banks' existing risk management culture, that is supported and constantly managed utilising a risk-based strategy [6]

Big Data analytics initiatives that benefit consumers and are under their control should be welcomed and pushed. With the advancement of technology, expectations of customers for financial services are anticipated to get better in the future. As more people acquire access to fintech and, as a result, to financial services and credit, the demand for new and evolving financial technology that is more efficient, better serve customer requirements, are very practical, and provide innovative solutions will grow. It will be difficult for banks to operate entirely in older ways and business models. Various research efforts will be required in the future for financial data management systems to address technical challenges in order to realise the promised benefits of big data; in particular, the challenges of managing large data sets should be explored by researchers and financial analysts in order to drive transformative solutions.. [10]

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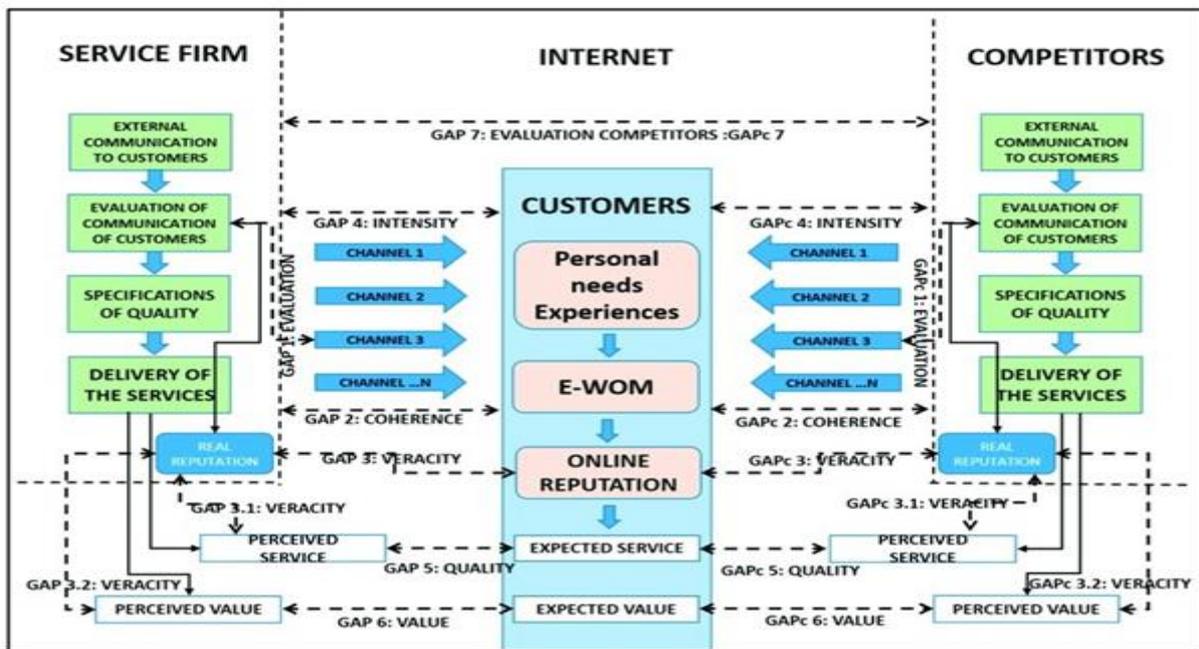
A STUDY ON IMPACT OF ORM (ONLINE REPUTATION MANAGEMENT) OF BRANDSON CUSTOMER BUYING MINDSET

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INTRODUCTION

This study considers an overview of online reputation management by brands has become an important tool for marketing strategy, with a focus on Mumbai, India. The study paints a picture dictating a hands-on department on maximizing the appeal of the brand so as to have desirable amount of increase in revenue and also ensure that the brand’s strategic goals are achieved. Intrinsic in this style is implementation the competitive challenge, carrying out internal remedies and thereafter making certain that all branding elements are closely knitted. Findings suggests that just brand has the upshot of dipping alleged risk for consumers and consenting the brands a degree of stability in the market place. However, marketers are advised against the diversity effect, whereby the complex brand can prove challenging to manage.

The emphasis of the model is the client, who makes decisions based on personal needs and understandings. In the Internet setting, word-of-mouth communication is carried out through which has the special characteristics that it is based on a persistent flow of information of sustainability from consumers and brands. These facets silhouette an online reputation in the observances of customers about a particular product, service, brand, or company, which is correlated to the mental image that is created. This image engenders an idiosyncratic assessment by the clients about the concepts of the projected service and the projected value. The conformation of this mental image in consumers about certain goods or services, which is created on all-embracing information, implies a competitive positioning of companies in a particular market. This is the vital point where service companies have to smear their influence in order to make their communication as real as possible. If the communication channels do not mete out an unswerving and straightforward reputation with suitable power in relation to their competitors, their customer demand may be pretentious.



Source: https://www.researchgate.net/figure/Gap-analysis-of-the-online-reputation_fig1_325198008

OBJECTIVE OF THE STUDY

- 1) To study how consumer behaviour is affected by the online reputation of the brands
- 2) To comprehend the relationship between consumer behaviour and the marketing concept, the common marketing concept, as well as segmentation, targeting and positioning
- 3) To realize the connection between consumer behaviour and customer value, satisfaction, trust and retention
- 4) To comprehend how new technologies are empowering marketers to placate the needs and desires of the consumers

Scope

Brands today are striving hard for survival and want to be seen as brand which stands out of the clutter. The customer has evolved from the stage been cheated by Caveat Emptor to stage of being the king of the market. Through the increased number of usage of Smartphones customers look online for everything and it becomes important for the brands to be present where their target audience is. Companies are so now moving towards online, making their presence felt everywhere. This makes the scope of Social Media Monitoring and ORM quite understandable.

Limitations

This research will be only limited to the consumer who have experienced engagement marketing. Also the research will be restricted to the areas like Mumbai, Delhi and Bangalore. Customers are reluctant for their opinions and feedback and authenticity of the views cannot be verified. The exact parameter of online reputation of a brand with reference to the level it influence the customer is not predicted.

Hypothesis

Online Reputation Management (ORM) plays a fundamental part in the tactic to customers to avail online information of product and service and build trustworthiness as when a customer looks for reviews online, he is able to interact virtually and this could cause privacy risk apprehensions. According to Pappas (2016)¹, higher levels of trust in the online platforms safety and security help to construct a consumer belief in e-vender credibility which ultimately increases the likelihood of a sale. In order to take care of ORM brands take various step in order to service the customers provide innumerable benefits, e.g., privacy and security, information quest and facility, product reviews, advancement, and order realization.

¹<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7475027/>

As today customers are knowledgeable and they know what they are looking for and have the access to the entire world on their mobile phone brands need to provide them all the information in proper way. As so:

H0:

The matter of economic benefits enabling consumer justifiable consumption intent has been clearly addressed. The rationale behind this is that consumers perceived economic well-being, a comparison of current situation to a past situation when make a purchasing decision.

H1:

Customer buying online entirely restrains the relationship between economic benefits and sustainable consumption, such that economic benefits effect justifiable consumption more strappingly when buying just basis review is very complex.

RESEARCH DESIGN AND METHODOLOGY**Sample**

The sample consists of 61 online consumers from the India based market (primarily Mumbai, Delhi & Bangalore). A study of effect of online reputation management on consumer behaviour.

Data collection

Data were collected from a sample of 61 online consumers using Google Form. A valid online consumer is recognized as one who had online shopping involvement and searches for review before purchasing any product.

Preliminary work / Survey Done

Data has been gathered keeping following aspects in mind 1. Perceived effectiveness of online reputation management

- When buying online, I am self-assured that reviews on the various digital platform is genuine
- I have self-assurance in third parties used by e-commerce platforms to shield me against any potential risks (e.g., personal information leakage, credit card fraud, etc.)
- I am certain that brands do not take benefit of me (e.g., personal information leaking, credit card fraud, etc.) as a result of buying online.
- I believe that other parties used by e-commerce platforms have responsibility to protect me against any latent risks (e.g., personal information leaking, credit card fraud, etc.) if to some degree goes wrong with my online procurement.

2. Economic benefits (EB)

- I can buy a product trusting the reviews.
- I can express my views about the brand and its products online freely.

DATA ANALYSIS AND INTERPRETATION

Data collected by the respondents is been analysed and interpreted in the graphical form below:

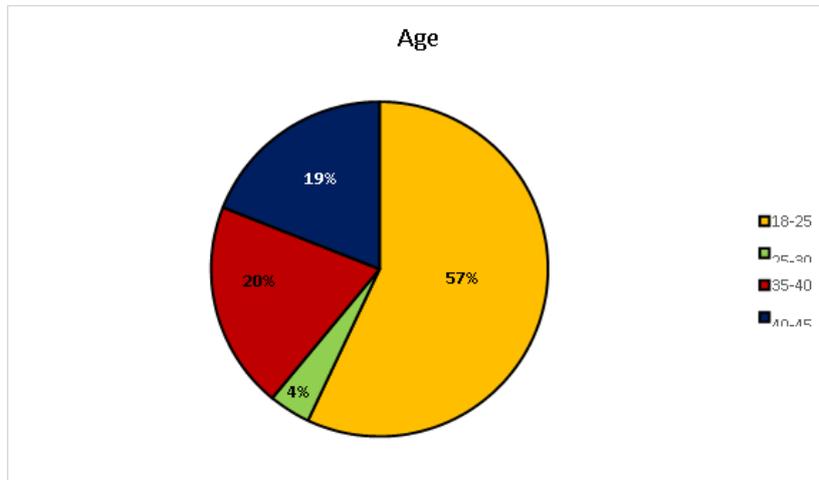


Figure1: Age of the Respondents

For the research, the targeted age group was 18 yrs to 45 yrs, out of which 57% respondents were among 18 to 25 yrs, while 20% respondents were 35 to 40 yrs, whereas 19% respondents were among 40 to 45 yrs and 4% respondents were among 25 to 30 yrs.

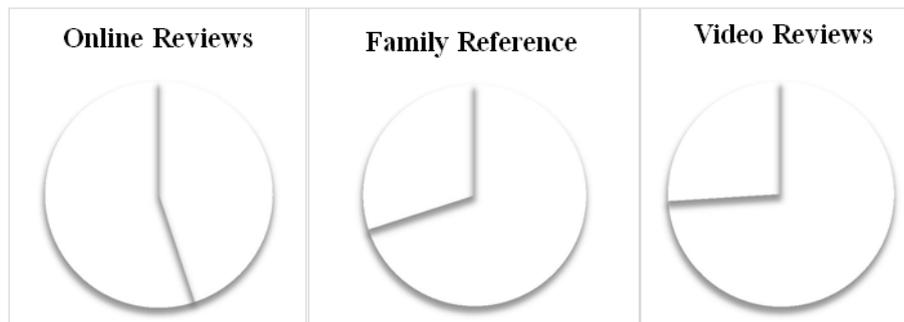


Figure 2: Preference of Research before Purchasing the Product

As per the survey 44% respondents prefer online reviews for research before making the purchase of a product, while 30% respondents prefer family reference whereas 26% respondents opt out for video reviews.

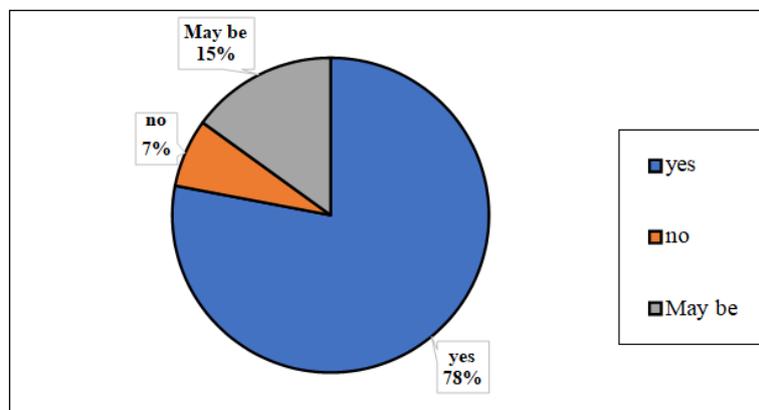


Figure 3: Consumers looking for reviews & ratings before purchasing the product

The survey interprets that 78% respondents are concerned about looking at reviews and ratings before purchasing the product, while 15% respondents are dicey for looking at reviews and ratings whereas 7% respondents don't bother for looking at reviews and ratings before purchasing the product.

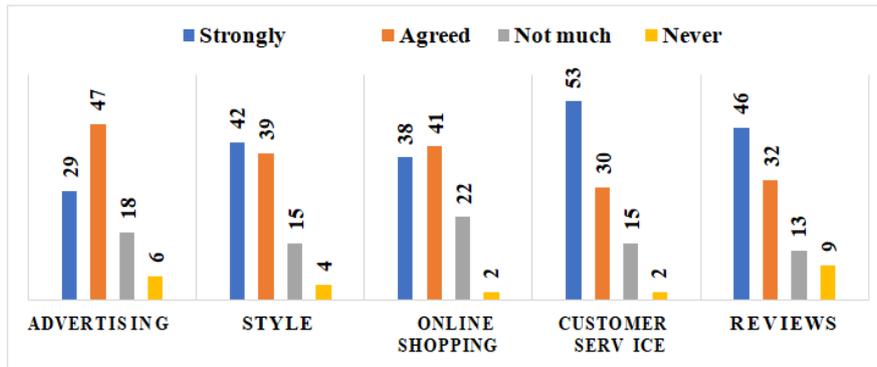


Figure 4: Relevant factors while choosing a Brand

As per the survey, majority of the respondents opt for customer service and advertising in most of the cases while choosing the brand, while very few get influenced by style, online shopping and reviews.

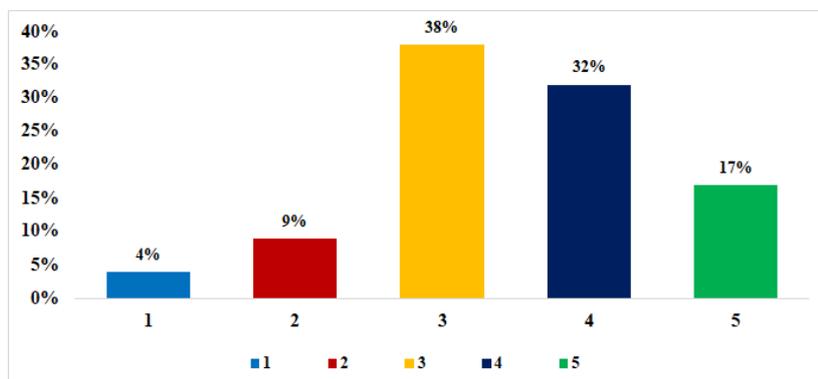


Figure 5: Trust on Reviews that are been Read Online

The survey interprets that 38% respondents somewhere trust the reviews that are been posted online, while very few respondents don't trust the reviews that are been posted online.

Benefits to Society

We are living in a digital age where viewers are increasingly active. Consumers will direct their thoughts and views about a brand and share that content with an online public. User-generated content can either be tremendously advantageous or pointedly damaging, depending on what is said about a Brand.

If you think about it, internet users like you and me will only view the first page — or, rarely, a few pages — of a search engine results page (SERP). Why? For the reason that search engines will rank results based on how pertinent and dependable they are. So, if a potential customer has hunted for your brand and initiate negative material on the first page, they will view you in a less favourable light. On the other hand, if all the best results contain rich, positive content, you'll make a great first impression.

Conditional on what type of user-generated content there is out there about you, it will determine whether customers behaviour business with you or not. If the content found in search results is positive, it will generate more click-throughs and lower bounce rates.

FINDINGS

- Brands needs to take initiatives for Online Reputation Management as today customers being the king are more vocal on various online platforms.
- Majority of the respondents who buy online fall in the age bracket of 18-45.
- We can see that more than half of respondents are frequent users of an online platform for shopping.
- Most of the respondents prefer to check Online Reviews like product reviews, customers comment before purchasing the product.
- The majority of people who are willing to buy the product online do look at reviews and ratings before making the purchase.
- Majority of the respondents trust the reviews posted on the various online platform which includes both owned media and paid media.

Hypothesis Testing:**H0:**

The matter of economic benefits enabling consumer justifiable consumption intent has been clearly addressed. The rationale behind this is that consumers perceived economic well-being, a comparison of current situation to a past situation when make a purchasing decision.

H1:

Customer buying online entirely restrains the relationship between economic benefits and sustainable consumption, such that economic benefits effect justifiable consumption more strappingly when buying just basis review is very complex.

As per the survey and all the data analysis it is been found that H1 has been approved whereas H0 has been disapproved.

CONCLUSION

Earlier, companies could preserve their reputation by supervisory the information available about the company. Today, with the rise of Digital Platform; reputation management has been extended with online reputation management. Nowadays, when people launch a bout on SocialMedia, companies have no control, and reputation impairment can be the result. Reputation impairment may have significant influence on the overall results of companies in the future. Online reputation management is the way by which companies can pact with customer attacks on Social Media that is why companies have to organize and execute an effective online reputation management. Companies always have to reconsideration their reputation management; by altering the mind-set, espousing new tools, companies can protect their business from the worst customer attacks in the future. An operative online reputation management is of countless value, because a well-performing online reputation management is essential in order to guard companies of reputation damage on Social Media.

RECOMMENDATIONS

1. It is important for a brand to build and maintain trust for its customers in order to protect you from online smear campaigns.
2. In order to build trust about the brand it is important share the good and the bad aspect about the brand.
3. It is important for brands to know what people are saying about the brand in order to protect the reputation of the brand.

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STUDY ON IMPROVING EFFICIENCY OF EMPLOYEES THROUGH TRAININGS WITH THE HELP OF AN ANALYSIS OF COMMERCIAL BANKS IN INDIA**Dr. Veera Talukdar**

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ABSTRACT

Earlier work on employee presentation evidenced the requirement of a proper and standard form of the training system to achieve the objectives set by the decision makers. The study aims to investigate the impact of training and development on employees' performance in the banking sector of India. To collect data self-administrated questionnaires were used. Branches of some Commercial Banks from Mumbai were selected. The simple random sampling technique used to select the employees from selective bank branches. Five hundred questionnaires were distributed among that 410-respondent response. Frequency distribution, Reliability, Principle Component Analysis (PCA) and Regression applied to determine the results. The results indicate that most of the banking institutions are very aggressive towards their training and development programs, as they have to lead in the same industry with the enhanced and unbeatable skills of their professionals. This research concludes that training and benefits other than rewards are useful means of polishing employee's skills to leading them to achieve their organizational objectives, as they get more involved in their jobs by proper coaching.

Keywords: Training, growth, job involvement, employee's performance, drilling, polishing skills, organizational objectives

INTRODUCTION

Better performance is the core value of every organization, but the desired performance can never be achieved without the efficient performance of the employees of that organization. All working enterprises have money, materials, technology, ideas but they all are nothing except the human resource which is the basic backbone of the organization to let all the things happened and to utilize that human resource, they should be well trained for their concerned job description (Farooq and Raju, 2019).

The performance management system was introduced to solve the performance issues of organizations. Like other establishments in banking sector reforms focus on the performance of their employees has also executed (Hogan, 2000). Tutoring of existing and new employees in establishments done with the help of training as the training considered an organized way to increase the performance quality of the employees. Training considered a logical technique to train the employees of individual level, group level and at the organization level (Khawaja & Nadeem, 2013). Thus, training is a series to transfer modern skills and knowledge to the employees. All

Those organizations focus on training and development to achieve quality goals. Training acts as mediation to train the employees and to enhance the quality in the form of goods and service by improving the technical skills of the employees (Manju & Suresh 2011).

Training is a tool to gain new knowledge and modern skills that lead to growth and development of organizations. The capability of the employees in organizations enhanced with the help of training. In modern era training of employees is gaining an imperative and critical role. It considered necessary to invest in the training and development of the employees to achieve the desired goals that lead to organization success (Khawaja & Nadeem 2013).

RESEARCH OBJECTIVE

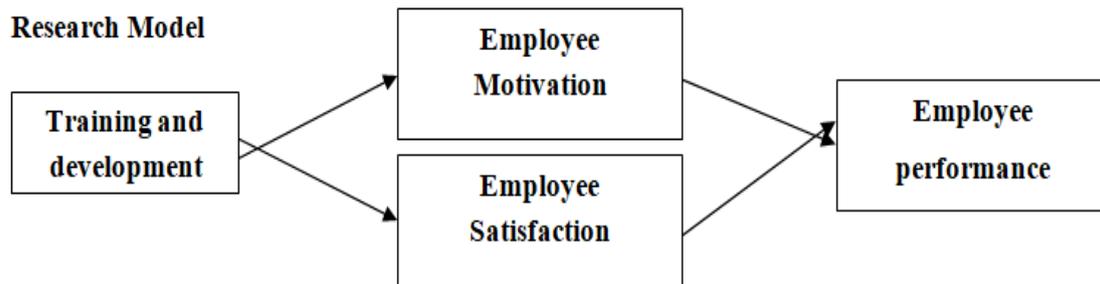
The propose of study is to investigate that role of training and development on employee's performance and to investigate that either only training and development is enough to employee's motivation for better performance or some other factors are also necessary with training and development?

- To investigate the training and development impact an employee's performance.
- To investigate the training and development on the capability of employee's motivation.
- To investigate how training and development effect employee's satisfaction.

Conceptual Framework

Prior studies on this topic, shows narrow scope, some studies discuss the training and development impact on productivity only and some focus only one bank. This study is different from prior, in the study we find to

investigate either training or development is the only tool for employee's performance or some other factors are also there which are necessary with training and development for employee's performance and satisfaction.



Hypothesis

H1a = Training and Development and Employee Motivation has a positive relationship.

H1b = Employees satisfaction and training have a positive relationship. **H1c** = Employee performance and training have a positive relationship.

LITERATURE REVIEW

Training and development is a tool that enables the employee's to make an understanding of the techniques and practices that make any task effective and efficient. With the help of training and development, performance can be enhanced at the individual level, group level and organizational level (Buzdar, Janjua and Khurshid, 2016; Qadir and Farooq, 2018; Farooq *et al.*, 2019).

Employees are considered intellectual capital and valuable assets in every organization because the skills employees help to make an organization successful and lead to a profitable organization. Employees are the persons who make a quality product and perform critical activities in the organization. If the employees are not well trained and do not have modern skill any organization can never achieve the quality standard and desired profit. Hence training is a necessary tool at the workplace to achieve the targets effectively and efficiently (Davis, 1989; Hoffmann, 2013; Mukhtar, Anwar and Ilyas, 2017; Khalil-ur-rehman and Farooq, 2018).

Training and development and Employee Motivation:

Shadare *et al.* (2009) Said that employee motivation is a result of better policies of the manager that create effectual job management between employees in a firm. An employee at a motivational level is answerable for the defined goals and objectives that he/she has to achieve. That's why he/she put its all effort in that specific direction. Motivation makes a firm more successful due to motivational employees are continuously trying to enhance their working capabilities (Rutherford 1990). Encouraging employees to perform their best work in tough conditions, maybe the employees most solid and sound challenges and it might be possible with the help of motivation. Increment in salary is the basic wish of every employee in every organization (Houran, 2010). According to (Sara *et al.*, 2004) incentives keep employees devoted to their work, so money is the basic incentive that organizations can give to their employee.

According to (Adeyinka *et al.*, 2007) money has the superiority to attract, manage, and motivate employees toward superior performance. Frederick Taylor and his systematic management associate relate money as the major basic factor in motivating the workers of industries to achieve larger productivity level.

H1a= There is a relationship between employee training and development and Employee Motivation

Training and development and Employee Satisfaction:

Shortage and lack of skills are threats for the growth of the economy of every nation. Retention strategies indicate a critical situation in the global market that faced due to a shortage of skills. Shortage of skills does not only affecting South Africa only the victim of the skills shortage are every region of the world (Horwitz, 2008).

According to Moseley *et al.* (2008), state that employee retention is important to organizations as increased turnover creates instability and puts additional workload and stress on remaining staff, increasing job dissatisfaction and therefore potentiating the turnover cycle. In this current era employee's wants fresh and high values skill to complete their work task effectively and efficiently. The organization offers modern and technical skills employee's desire to join those organization instead of those does not pay attention to modern skill (Chaminade, 2007).

H1b= There is a relationship between employee training and development and Employee Satisfaction.

Training and development and Employee Performance:

With the help of modern training, an organization can compete with competitors strongly. Employee’s performance can be enhanced with the help of up to date training that helps the development of the organization (April 2010). Measurement of the performance can be done with the employee’s efficiency and effectiveness. An employment contract is made on the bases of performance of the employee’s. Rewards to employees given based on performance. Training and development help to increase the performance level among employee’s that leads to achieving the desired goals of the organization (Cooke, 2000).

H1c= There is a relationship between employee training and development and Employee Performance.

DATA AND METHODOLOGY

Appropriate information can be obtained with the help of a valid questionnaire (Babbie, 2013) in this study a self-administered questionnaire used for data collection purpose. Convenience sampling technique was used to select the sample and data was collected with 5 points Likert scale (1=Strongly Disagree, 2= Disagree, 3=Neutral, 4= Agree, and 5=Strongly Agree). Prior researcher (Teseena and sorters, 2006) and cownin 2002 measured the employee’s motivation with the help of 5 points Likert scale. Data entered in SPSS software to know the impact of the variables. This study is a quantitative nature by using the positivist paradigm. Multiple regress equation was run to know the relationship between dependent and independent variables.

TABLE 3.1

Respondents’ Demographics	Frequency	Percentage
Gender (N=300)		
Male	42	14.0%
Female	258	86.0%
Age (N=300)		
20-30	253	84.3%
31-40	27	9.0%
41-50	18	6.0%
Above 50	2	.7%

Demographic Profile of Respondents

Data from 300 respondents collected with the help of questionnaire. Demographic information shows that 14% female and 86% male respondent take part in the study. 84.3% respondent were from the age group of 20-30 years while 9.0% were from 31-40, 6% from 41-50 and 0.7% from above the age of 50.

Methodology

Karl Pearson used PCA (Principal Component Analysis) in 1901 first time, after that it became familiar in the science field. In exploratory research, the variance between data can be checked with the help of PCA easier than the other test. A predictive model can be constructed with the help of PCA.

$$P_c = a_1(x_1) + a_2(x_2) + \dots + a_n(x_n)$$

Reliability of the data checked by using SPSS 20 the value of Cronbach’s Alpha shows the reliability of the data. Before starting the collection of data, a pilot test study was done, and some modification was done after getting the correlation results, Cronbach’s Alpha and respondent feedback of the pilot test study. After a pilot test study and modification of the questionnaire, data was gathered and normality test, descriptive analysis and comparing mean analysis done. Regression is a statistical measure that attempts to determine the strength of the relationship between one dependent variable (usually denoted by Y)

Linear Regression: $Y = a + bx$

Multiple Regression: $Y = a + bx_1 + cx_2 + dx_3 + ex_4$

Normality of data means that the data has been correctly entering in software and distributions of the variables are normal in the model. With the help of Multiple regression analysis relationships between X and Y variables were checked. As multiple regression used to know about the effect of an independent and mediating variable on the dependent variable in the model (Coakes and Ong, 2011).

4. Empirical Findings

Data were analyzed in SPSS 20 (SPSS is a statistical software used to manage the primary data), and validity and reliability were examined.

TABLE 4.1 Reliability of Measurement

Constructs	Number of Items	Cronbach's Alpha
Training and Development	5	.917
Employee Motivation	5	.732
Employee Satisfaction	5	.738
Employee performance	5	.725

Table 4.1 shows the results of the reliability of data. The Cronbach alpha values tells about the reliability of data used in research. The values of Cronbach in this table are Training, and development 0.917, employee's motivation 0.732, employee's satisfaction 0.738 and employee's performance 0.725 the values of all the variables are greater than 0.7 it proves that data is reliably used in this study.

TABLE 4.2 Regression Analysis
Employee Performance is the dependent variable

Repressors	Coefficient	Standard Error	T-Ratio
(Constant)	1.965	.132	0.000
Training and Development	-.378	.068	0.002
Employee Motivation	.049	.058	0.004
Employee Satisfaction	.621	.084	0.001

R square	Adj. R Square	F- statistics	Prob.(F- statistics)
.184	.176	22.301	.000

$$Y = a + bx_1 + cx_2 + dx_3$$

$$Y = 1.965 - 0.378x_1 + 0.049x_2 + 0.621x_3$$

Impact of training on employee's performance investigated with the help of multiple regress analysis; R² shows a value of 0.184 that means the correlation is 18% between the dependent variable and independent variables. The adjusted R² shows a value of 0.176; it means that 17% variation on the dependent variable is due to the independent variable. The adjusted R² tells the degree of freedom between variables. The results of R² and adjusted R² provide evidence about the good fit of the model.

TABLE 4.3 KMO and Bartlett's Test

Constructs	Number of Items	KMO measure of sample Adequacy	Bartlett's Test of Sphericity Chi- square	Bartlett's Test of Sphericity Sig.
Training and Development	5	0.77	1.684	.000
Employee Motivation	5	0.62	651.499	.000
Employee Satisfaction	5	0.72	429.986	.000
Employee performance	5	0.65	897.241	.000

Eigen Values and Total Variance Explained Fig. 1

Construct	Component	Initial Eigen Values		
		Total	% of total Variance	Cumulative % of Variance Explained
		3.773	75.457	75.457
Training and Development	Component1	.731	14.615	90.072
	Component2	.367	7.346	97.418
	Component3	.093	1.856	99.274
	Component4	.036	.726	100.000

Fig.2

Construct	Component	Initial Eigen Values		
		Total	% of total Variance	Cumulative %of Variance Explained
		2.562	51.234	51.234
Employee Motivation	Component1	.965	19.304	70.538
	Component2	.872	17.442	87.980
	Component3	.497	9.948	97.928

Fig.3

Construct	Component	Initial Eigen Values		
		Total	% of total Variance	Cumulative %of Variance Explained
		2.974	59.479	59.479
Employee Satisfaction	Component1	.988	19.760	79.240
	Component2	.499	9.989	89.229
	Component3	.338	6.752	95.980
	Comopent4	.201	4.020	100.000

Fig.4

Construct	Component	Initial Eigen Values		
		Total	% of totalVariance	Cumulative% ofVariance Explained
		2.537	50.735	50.735
Employee Performance	Component1	1.011	20.218	70.953
	Component2	.673	13.453	84.406
	Component3	.516	10.329	94.735
	Component4	.263	5.265	100.000

Principle Component Analysis is applied to four variables Training and development, employee motivation, employee satisfaction, and Employee performance. The values of allprinciple components are greater than 0.40.

CONCLUSIONS

The results of this study indicate that training and development is not the only key to hold the employee for a long period in the organization. Along with an effective training and development strategy, other employee’s benefits strategies like promotion, monetary reward, health benefit, old age benefit and opportunities for global exposure are also necessary. Reward system other than compensation is necessary for the better performance of the employee’s. The organization focus only on training and development and ignore the benefits of the employee’s does not achieve their goals effectively and efficiently. The suggestions for the organization are to concentration on training and development with effective design and delivery method. Also to support the training with other employee’s benefits, as because the organization supports the training and development with other employee’s benefits are successful concerning those only focusing on training and development of their employees and ignore or give minor concentration on other benefits.

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AN OVERVIEW OF POWERLOOM INDUSTRY IN ERODE DISTRICT OF TAMIL NADU STATE**Dr. Sunita Sherifani**

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ABSTRACT

In an economy, where predominance of agriculture and over population are the retarding factors of economic development, the growth of textile industry is rightly considered an effective curing step for all economic ills. The textile industry, especially powerloom sector generates more employment opportunities per unit of capital employed, than any other industry

The Indian textile industry represents a colossal part of the Indian economy. After agriculture, it is India's second largest employer. It currently provides 14% to industrial production, 4% to GDP, and 17% to the country's export revenues. The textile manufacturing industry employs around 35 million people directly. Indirect employment, which includes those working in agricultural-based raw-material production like cotton, as well as related trade and handling, is estimated to be approximately 60 million people. The mill sector, handloom sector, and decentralised powerloom sector are the three primary segments of the Indian textile industry. The present study examines the significance of powerloom industry in Erode. Erode is district in Tamil Nadu state of India.

Keywords: Erode, Textile, Poweloom, Manufacturing, Marketing.

INTRODUCTION

The legacy of tax, labour, and other regulatory policies in India has rewarded small-scale, labour-intensive businesses while discriminating against larger-scale, capital-intensive operations. The structure is partly a result of India's historical focus on fulfilling the requirements of its primarily low-income domestic consumers, rather than the global market.

As of September 2018, there are approximately 2.701 million registered powerlooms in the country.

As local conditions for purchasing and maintaining such looms improved, as did trade volumes, the powerlooms competitive advantage grew. This raises an intriguing issue. Most varieties of woven design are legally reserved for the handloom, but the powerloom has effectively encroached on this territory

Powerloom Sector in Tamil Nadu

Tamil Nadu has a notable place in the history of the Indian textile industry, occupying a significant position among the majority of sub-sectors. Tamil Nadu produces around one-third of the country's total textile output. Cotton is the mainstay of the state's textile industry. Kancheepuram Silk Sarees, Bhavani Carpet (Jamukalam), Madurai Sungadi Sarees, Coimbatore Kora Sarees, Paramakudi Sarees, Salem Silk Dhoties, Erode and Karur Home Textiles, Tirupur Knitwear Garments, and others are some of the textile products from Tamil Nadu that are universally recognised for their excellent craftsmanship and uniqueness. Around 40 lakh people are employed directly in the state textile industry.

Profile of the area under study:

Erode District is located in Tamil Nadu's far north western corner. It is largely bordered by the state of Karnataka, and the River Palar runs through it for a considerable distance. Namakkal and Karur Districts are located to the east. To the south, it is bordered by Dindigal District, while to the west, it is bordered by Coimbatore and Nilgiri Districts.

Erode district occupies a special place in Tamil Nadu's industrial map, with 40.32 percent of the population employed in non-agricultural activities.

Erode is very popular for its textile, handloom, powerloom and knitwear. Erode is also known as 'Yellow City' as it is one among the largest producers of turmeric. All these, industries and trade play a significant role in the district's economy.

Handloom weaving, carpet manufacture, cart building, oil pressing, brass vessel making, and other industries thrived in the area in the early days. Though these businesses thrived in the beginning, the arrival of modern times altered the fate of several of these long-standing old industries. However, the business is still alive and well in this country, and load-carrying carts are still made. Similarly, Bhavani, which was once known around the world for its exquisite carpets, has faded into obscurity, and the industry is now nearly non-existent.

Bhavani, Erode, and Gobichettipalayam all contribute to the oil-pressing industry's prominence. Handloom weaving is the only business that has been able to completely withstand the onslaught of modernization. Erode, Chennimalai, and other districts in the district are known for their handloom items, such as cotton sarees, bedspreads, towels, and furnishing textiles. Bhavani and Jambai are two more key industrial centres.

Thousands of powerloom are found in Erode and nearby areas manufacturing different garments made by handloom and powerloom. Lungies, dhotis, inner garments and towels etc are major products produced in Erode. Towels are the major attraction to the buyers, towels of different sizes, with attractive colours and designs like stripes, checks, combination of light and dark designs are available at very reasonable price ranging between Rs. 11 to Rs. 65 depending on the size. As towels are made of cotton so it absorbs water easily and due to this quality towels have multiple uses.

REVIEW OF LITERATURE:

- Mahendra Dev (2011) has emphasized the importance of the workshop by pointing out that the handloom sector is the second important employer after agriculture. He said that handloom sector is important also because it can add to economic growth; economic growth improves as employment improves. He then mentioned the importance of the availability of yarn at affordable prices. With these remarks, the discussion was initiated.
- Lau, C.K., (2009) in his study says that 'Determinants of Competitiveness: Observations in China's Textile and Apparel Industries' tried to explore the key determinants of competitiveness in the textile and apparel industries, with special reference to Chinese Mainland. The variables used for the research were productivity, supply-side and demand-side determinants to measure enterprises' competitiveness.
- Rasia, R.,(2009) in his research paper 'Malaysia's Textile and Garment Firms at the Crossroads' discusses the development of textile and garment industry in Malaysia and its sustainability. Rising material and labour cost, increasing competition, lack of co-ordination in government policies, absorption of advanced process technology are few problems dealt with global market. The Dynamics of Textile and Garment Manufacturing in Asia', introduced the leading arguments on the promotion of the garment manufacturing in selected East, South and Southeast Asian countries.

OBJECTIVES OF THE STUDY:

- 1) To study different stages of production in powerloom sector
- 2) To study the marketing strategies followed by powerloom units for marketing their products.

RESEARCH METHODOLOGY:

Secondary data are used for the purpose of the study, collected from various websites, newspaper articles, YouTube videos, research papers and theses.

Manufacturing and Marketing of textile and garment products in Erode:

The first step in manufacturing begins with purchase of yarn, The finished product of any process depends upon the quality of input in the form of raw materials. The quality of raw materials varies based on its price, place of supply, time at which is supplied etc. The raw materials can be directly purchased from the open market or through the agent. In Erode both sources for procurement of raw materials are used by the manufacturers depending upon the lead time in supply of materials.

Yarn is made into fabric by weaving or knitting. There are two types of yarn that are used for weaving or knitting viz filament yarn or staple yarn.

In weaving two distinct sets of yarns or threads are interlaced at right angles to form a fabric, where as in knitting fabric is manufactured by interloping from a single set of yarn. In knitting long needles are used to interlink or knot a series of loops made by one continuous thread connect to another one and when enough loops have been made the result is a flat piece of material called a fabric.

Bleaching – When the fabric goes to scouring and bleaching process where it removes all impurities from fabric through washing and eliminates unwanted colour matter from the cloth. Bleaching makes the fibres whiter and facilitates the dyeing process, it also makes the fibre more absorbent and finally clean and white fabric is transferred to dyeing process.

Dyeing Process - Dyeing involves the application of colorants to Fabric in order for it to become coloured.

Finishing- It involves mechanical and chemical processes employed commercial to improve the acceptability of the product. Crease recovery, flame retardant, water repellent, anti-pilling, antibacterial, antistatic, moth proofing, softening and hand builder are the special finishing effects that can be added into fabrics by mechanical and chemical processes according to end use of finished product.

Marketing

Finished products produced in Erode and nearby villages are brought to market for selling to wholesalers, retailers and distributors. The buyers have two options to buy the required goods either visiting physical to market or online buying. In physical purchase the buyer personally visits and selects the items, allowing buyer to assess the product's quality, colour, and design, which aids them in determining the type of item they needs to purchase in bulk. This market also aids manufacturers in determining the buyer's preferences and expectations, allowing them to determine the goods to be manufactured in the future.

Amid covid-19 pandemic following the government relaxation guidelines the goods were supplied to the online buyers.

One of the biggest textile markets in Tamil Nadu State which is owned, operated and maintained by Erode City Municipal Corporation is Abdul Gani Textile Market, popular with the name Gani Market. This market deals in wholesale and retail business, where varieties of towels, lungies cotton sarees, bed sheets, carpets, petticoats, and inner garments are available. This market is having 1000 individual shops of which 300 are permanent shops.

Apart from Gani market there are other major wholesale and retail textile markets in Erode,

Central Textile Market and Texvalley Integrated Textile Mall.

Central Textile Market is the oldest market located near Central Theatre and Erode Railway Junction. It is weekly market i.e., shandy market which begins at 6.30 pm to 6.00 am. A decade before this market was popular only for towels, but today all types and textile and garments products are traded here. Buyers from all over India prefer to buy from this market due wide range of varieties of cotton sarees, petticoats, lungies, towels, inner garments, t-shirts, track pants etc and at very reasonable rates.

Texvalley is an integrated textile wholesale and retail market has three enclosures first weekly market, main or daily market and international convention centre.

It was started by India's Textile Ministry. It is close to the Salem-Coimbatore bypass highway. This market is buzzing with activity with over 1500 wholesale successfully catering to a variety of textile materials across the country. It consists of two structures. One of the buildings is devoted entirely to the wholesale market it comprises of six floors spread over 11.5 lakhs square feet and in second building the same type of goods is sold in retail market, where sarees, towels, dhotis bedsheets, lungies, banians, and other items are brought in from all across Erode, Tirupur, Coimbatore, and Salem.

As witnessed since last four decades, Erode is a standard market, due to its quality price, variety, colour, size and devotion of manufacturers to their customers. The reason for this business's success is due to price diversity, colour sizes, and product availability as per the demand. The store chooses to purchase from this market because of the high quality, availability of the requisite number, variety of sizes, and colour combinations. The prices are relatively affordable, allowing the store to make a good profit.

Effects of Pandemics

Pandemics have impacted all aspects of life, and this industry is no exception. Due to the pandemic and high rates of taxes on yarn, as well as the high salaries sought by labour, manufacturers are finding it difficult to survive. In order for this industry to continue in a proper manner, manufacturers are requesting that taxes on raw materials be reduced.

CONCLUSION

The powerloom sector occupies a significant position in the Indian textile industry. To keep the pace with developments taking place in this sector in developed countries, Indian powerloom industry has to prepare itself for drastic technological changes and will have to focus on area such as Technology upgradation: modernization of Powerlooms. No doubt Indian textile industry is coping up with high technology mode to collect the benefits of scale operations and quality. Also trying to ensure healthy and safe working environment to its labour force.

As the pandemic affected many sectors, this industry was also negatively impacted and had a difficult time. Even after the downturn, it is attempting to recoup its losses and rebound. Poweloom products like bed sheets, towels etc are used every day, and because of their frequent use and low cost, people do not hesitate to change them as soon as new patterns become available, ensuring that this market will never be saturated.

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- 7) https://en.wikipedia.org/wiki/Abdul_Gani_Textile_Market
- 8) <https://www.youtube.com/watch?v=5nUjGNDImIk>
- 9) <https://www.youtube.com/watch?v=bVjFP8LTa6c>

AN ANALYSIS OF CUSTOMER PREFERENCE TOWARDS OTT PLATFORMS IN WEST BENGAL: A STUDY**Anis Chattopadhyay¹ and Prof. (Dr.) Sujit Mukherjee²**¹Assistant Professor, Department of Hospital Management, Techno India²Professor and Head, School of Management Sciences, Maulana Abul Kalam Azad University of Technology, West Bengal**ABSTRACT**

The current Covid-19 pandemic and the across the nation lockdown has slowed down the growth of the enterprises and financial outcome, and has additionally prompted change in the behavioural pattern of the individuals towards consumption of products and services, including that of digital based consumption. The transition is the consumer behavioural patterns brought about by the lockdown implemented by the Government of India and hypothesized that a significant number of these social changes are not transient in nature; they are probably going to remain long haul. Over the top media platform is a streaming media service offered directly to viewers via the internet. There is a dramatic change in the online video streaming, as far as the concept of watching movies and entertainment is concerned. There are so many platforms where people watch online movies like NETFLIX, DISNEY-HOTSTAR, AMAZON PRIME, ZEE5, SONY LIV, MX –PLAYER etc. With increase in subscriptions day by day these have become very popular all over the world. There is also a lot of competition between them for gaining the viewers' attention. In this context, the study aims to understand people's views of online movies and web-series platforms. They bypass cable, broadcast, and satellite television platforms. The Study on customer preference towards these platforms among the masses of West Bengal was done to find the preference of these OTT platforms and the underlying influencing factors. collected data through survey with the help of a pre-designed questionnaire was analysed and interpreted. The findings of this study gave conclusive evidence of the status of customer preference of these OTT platforms in different areas of West Bengal with a higher preference towards Disney-Hotstar among the masses.

KEYWORDS: OTT, NETFLIX, DISNEY-HOTSTAR, AMAZON PRIME, ZEE5, HOICHOI, customer, preference

INTRODUCTION

There is a remarkable transformation going to happen in this 21st Century as far as society and economy is concerned. The Indian film is also seeing strong growth due to the growth of technology in India. The outbreak of covid pandemic has changed the scenario of Indian television and cinema, thanks to internet and smartphone. Even new movies and web series have been released in platforms like Amazon prime, Netflix, Zee5 so that the continuity of entertainment industry is maintained despite corona. Social networking sites, new digital platforms and wi-fi sticks with new techniques are being used to watch movies, documentaries, and other video programs by Indian audiences. In 2010 came the practice of satellite film and home film rights. At the beginning of this decade, 60% of film revenues came from movie theatres and the budget was made through other sources such as CD / DVD releases, DTH rights and other overseas rights. Now the trend is changing. These types of personal needs are met by providers of online video streaming services such as Hotstar, , Netflix, Amazon Prime, Hoichoi etc. There was a time when viewers had to postpone or pre-poned their daily routine work to watch a program. They can now watch their favourite movies and TV shows anytime and anywhere on their favourite device comfortably in their own home through amazon prime or Netflix or ZEE5 etc.

India has 190 million television homes and more than 120 million television subsidies. The total number of families watching television increased by 4.7 in 2019. According to the 2017-2018 TRAI report, the Indian television industry is growing at 12.24%. Revenue for the Indian television industry in 2018 was \$ 734 billion, estimated to reach \$ 860 billion by 2020 (line of business). The total value of the Television Industry is 660000 crores, which are growing at a rapid pace. Bollywood, which is best known for Indian cinema contributes heavily to the Indian film industry. Other language cinemas such as Bengali, Marathi, Punjabi, Bhojpuri and Gujarati are also popular in their respective regions of the country.

The Indian film industry is far more bigger than any other film industry in the world by producing more than 1000 films annually in India. These factors attract international investment and cooperation companies.

Opportunities in the entertainment industry and technology development in India are attracting national and international actors to invest in the industry. The celebrities are investing in new television and cinema technologies. Hotstar, (now Disney + Hotstar), is the most registered - OTT platform in India, operated by Star India since July 2020, with approximately 300 million active users and over 350 million downloads. According

to Hotstar's India Watch Report 2018, 96% of Hotstar's viewing time comes from videos of more than 20 minutes, and one-third of Hotstar's subscribers watch television shows. In 2019, Hotstar started investing Rs. 120 Crore for making original content such as "Hotstar Specials." 80% of views on Hotstar come from dramas, movies and sports programs.

Netflix and Amazon are two of the most prominent online media in India, both of which started their business in 2016 in South Africa. These international players are growing slowly in India. Netflix has partnered with Airtel where it offers a free three-month subscription for each Airtel postpaid connection.

In September, 2018, Twitter introduced a video streaming of sports, entertainment and news content. Twitter has partnered with 12 Indian companies in streaming video content (IBFE, 2018). The Indian Brand Equity Fund (IBEF) has estimated the Indian film industry to reach more than Rs 200 billion in FY 2019. The partnership between American film Industry and Indian film industry is also proving significant growth thanks to these online forums.

India's film industry incurs considerable losses due to piracy. This is the greatest advantage of digital platforms which prevent these types of activities because piracy and theft is not possible without the help of professional hacking which is a cybercrime. There is an amazing growth of OTT in India and many indigenous players like Viacom18 (Voot), Zee (Zee5), Balaji (Alt Balaji), Star (Hotstar) have set up their business with substantial profits.

These online platforms reduce film dependence on theatrical performance and television viewing of television programs. Because of low cost and low requirements, digital platforms pose no threat to the manufacturers as far as risk is concerned. The advent of 4G and big display sized smartphones have added to the opportunities for film and television producers to monetize the content of their videos. This study investigates the perception of people of West Bengal about the online movies and web series, especially during the pandemic situation in which all the movie halls and Multiplexes were closed due to lockdown.

LITERATURE REVIEW

Haritha Haridas, Sivapriya Deepak (2020) have explored in their studies that for any online streaming media, service differentiates the different platforms as far as the preference of the customers are concerned.

Peter, W., Irene, M., & U, P. J. (2016) have concluded in their findings that consumers look for value addition and additional features with low cost any in platform. They want to be involved exclusively, so that they can become loyal.

Doh, S.-J., & Hwang, J.-S. (2009) have stated that popularity of online digital platforms is more spread through word-of-mouth publicity. People are fascinated by having access to these platforms at their fingertips as and when required.

Fan Qiu, Yi Cui (2010) have inferred in their research that online netizen's behavior is dependent on the popularity level of channels. The user behavior pattern has a strong correlation with the user's behavior in the erstwhile streaming sessions.

M. Maia, J. Almeida, and V. Almeida have proposed a methodology to characterize the online behaviour of the users. That is very much dependent on uploading and viewing content, choosing friends and so on. This makes the user habituated to undergo online activities and he searches for more of such things in the internet.

Lee, C. Christopher; Nagpal, Pankaj; Ruane, Sinead G.; and Lim, Hyoun Sook (2018) have concluded in their research that there is a significant relationship between cost and cable tv as far as online streaming is concerned. More than demography, it is the social trends, available options and cost of services that are deciding factors.

Bondad-Brown, Beverly A., Rice, Ronald E. & Pearce, Katy E. (2012) have found out the reason behind the motivation of watching online videos. The basic U & G motivations are the influencers for the new online media world with an exception to level and contextual age.

Jiushuang Wang; Weizhang Xu; Jian Wang(2016) have deduced in their research that video streaming in mobile is convenient and real time for wi-fi and 4G technology in smartphone because of practicality and portability.

Cha, J., & Chan-Olmsted, S. (2012) have explored that there is a perfect cannibalization of television and movies by online platforms because of consumer motivation and interest of users towards OTT.

Taneja, H., Webster, J. G., & Malthouse, E. C. (2012) have found out in their research that there are wide range of platforms with attractive contents which the people watch and enjoy taking leaf out of their busy schedule in the daily lives.

Menon (2020) states that limitations forced in the wake of Covid-19 pandemic significantly changed the consumption pattern for media and entertainment too. As lockdowns kept individuals from wandering out, either for recreation or work, public activity progressively moved to online stages. Web-based social networking furnished the chance to remain associated with families, companions, partners, neighbours and others.

Deloitte (2017) report on “Digital Media: Rise of On-demand Content” stated that the availability of affordable smartphones and better internet 4G connectivity has given rise to the demand for video on demand entertainment services. More people are now spending time on digital media compared to the cable or dish network.

ICFAI (2019) report on “Transition of Consumer towards Video Streaming Industry: A comparative analysis of Netflix and Amazon Prime.” mentioned that Content is said to be the king when it comes to on-demand video streaming channels and Netflix has slight edge over others in terms of content. Hotstar seems to be considerable choice because of the content it offers at affordable prices.

Mann et al., (2015) in report “Digital Video & the connected consumer” notified that with 50% of smartphone app users aged between 18-24 years, the OTT media platforms are targeting a younger demographic.

Mann et al., (2015) in report “Digital Video & the connected consumer” notified that with 50% of smartphone app users aged between 18-24 years, the OTT media platforms are targeting a younger demographic.

In the study “Understanding Adoption Factors of Over-the-top Video services among millennial consumers”, researchers highlighted the four major factors that affect consumer adaptation towards different platforms. They are Convenience, Mobility, Content and Cost.

(Dasgupta & Grover, 2019)

OBJECTIVES

1. To know the public opinion about the OTT services in West Bengal.
2. To understand maximum recall value.
3. To know the reasons of choosing the preferred OTT platform.
4. To know the viewing habits of OTT viewers in West Bengal.
5. To know the most preferred OTT application in said area.

RESEARCH METHODOLOGY

This research is based on a survey made online. A Semi-structured questionnaire was used for data collection.

An online survey of google forms is designed to determine the OTT viewers perception and watching habits in areas of West Bengal. 137 respondents from various localities of West Bengal were selected as sample.

As the number of respondents is 131 here the number of respondents and percentage of respondents are same. Data is analysed by calculating total value of the score.

Sample Size: 137

Sampling Procedure: convenient Sampling

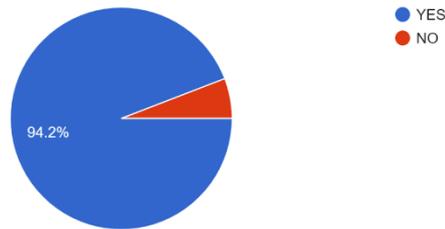
Data Collection method: Online Survey

Data Collection tool: Semi-Structured Questionnaire.

Findings:

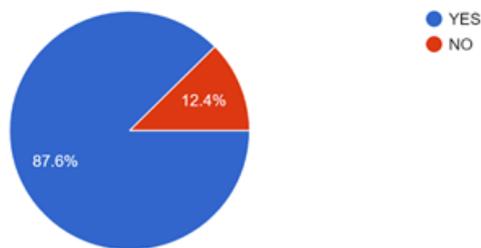
The findings are as follows:

1. Have you heard the name of OTT platform?
137 responses



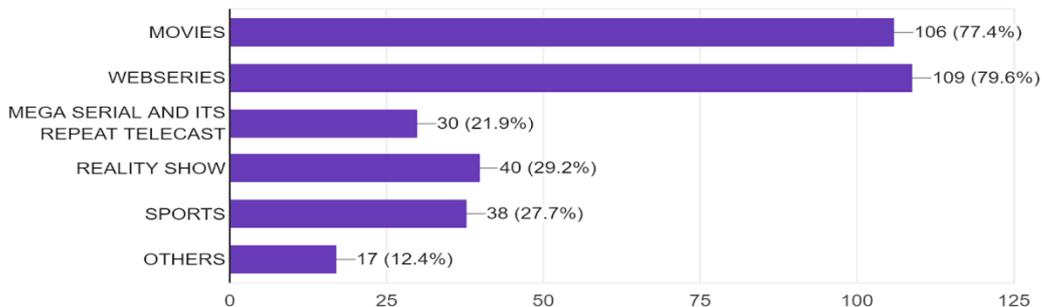
From the responses it has been seen that 93.7% of total respondents are aware of the OTT platform and rest are not.

2. Do you see anything in OTT platform?
137 responses



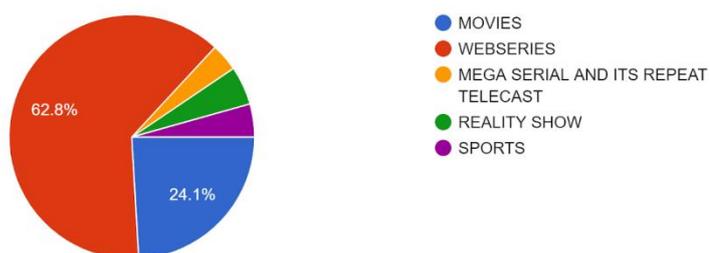
In the second question it has been seen that among 93% responded only 88.1% of aware respondent are seeing different programmes in OTT platform.

3. What do you see generally in OTT Platform? (YOU CAN CHOOSE MORE THAN ONE)
137 responses



Web series have been seen by Maximum number of respondents, i.e, 79.6% followed by movies 77.4%. Reality show have also been seen by 29.2% respondents and sports programmes are also seen by 27.7% respondents. The astonishing fact which has been revealed is 21.9% respondents are viewing mega serials which are also available in the satellite channel. They are also keen to view those mega serials as repeat telecast.

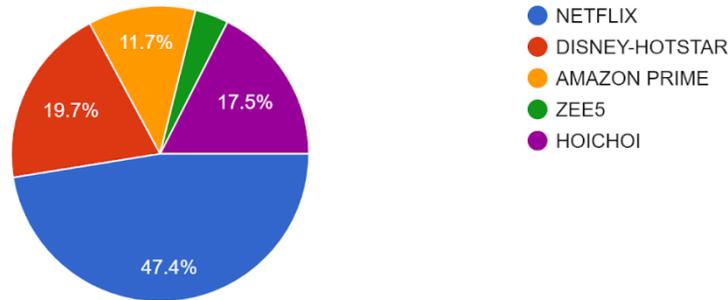
IN WHICH ENTERTAINMENT SUBJECT YOU ARE GOING TO SPEND LONGEST TIME IN A DAY?
137 responses



This question is about the duration of time respondents are spending towards different shows. The responses revealed that 62.8% respondents spent their maximum time towards web series while movies constitute only 24.1% respondents.

5. WHICH OF THE FOLLOWING OTT PLATFORM IS THE BEST

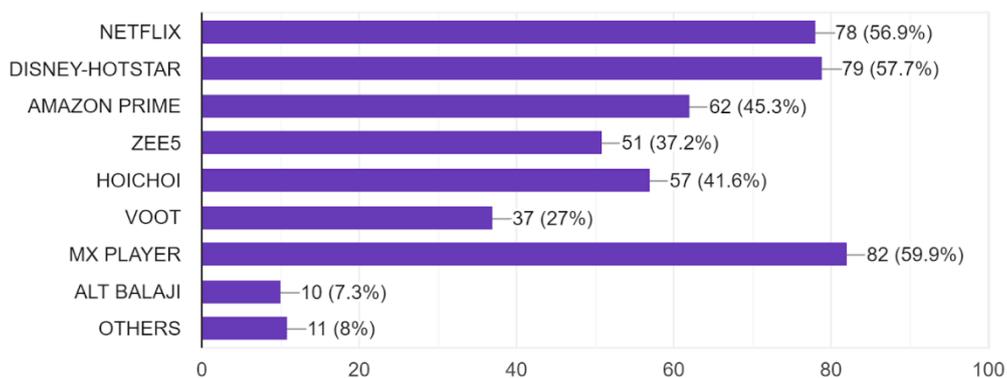
137 responses



Maximum number of respondents, i.e., 47.4 % agreed that Netflix is the best OTT Platform followed by DISNEY-HOTSTAR 19.7%. Hoichoi . Amazon-prime and Zee5 shared 17.5%, 11.7% and 3.7% preferences respectively.

6. What are the different platforms available in your mobile phone? (you can choose more than one)

137 responses



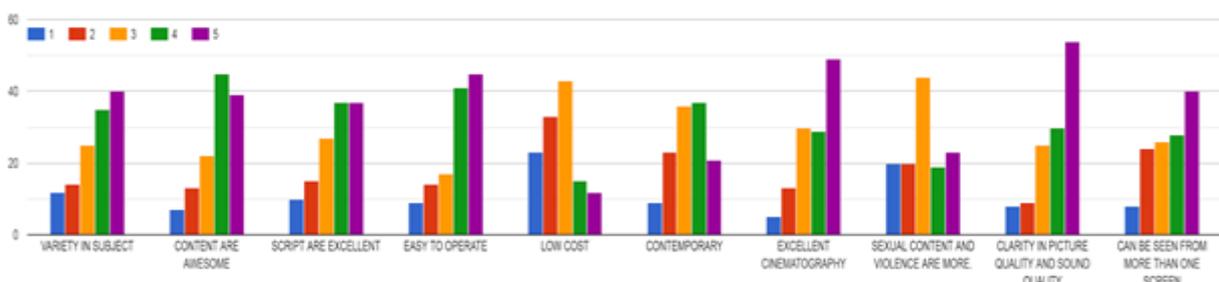
57.7% of total respondents liked Disney-Hotstar, followed by Netflix 56.9% and Amazon Prime 45.3%. But, Astonishingly, 59.9% of the respondents have got MX player as it was free in the past. Vernacular platform, Hoichoi is also having very good share with 41.6%. Zee5, Voot are having 37.2% and 27% responses respectively.

It is mentionable that maximum number of respondents have multiple OTT platforms, specially Netflix, Hoichoi, Amazon Prime, Disney-Hotstar, and Sony live as they have been provided by different mobile connection provider free of cost under specific prepaid and post-paid offer.

7. 95% of the respondents were not aware about the opt platform before pandemic. During pandemic and lockdown, they had come to know the different OTT platform and installed the same.

8. These platforms are very much accepted in age group of 16-45 age group. OTT platforms have become obsession of 16-35 age group.

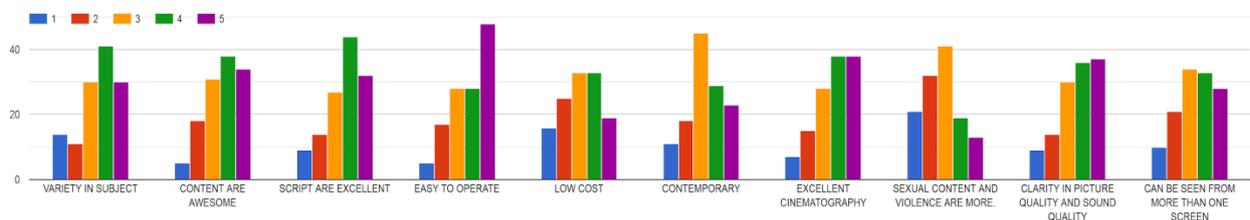
PLEASE CHOOSE ONE GRID FOR EACH CRITERIA AS PER YOUR EXPERIENCE FOR NETFLIX (1 GRID= for not up to the mark/ completely disagree/ absolutely dissatisfied/poor; 2 GRID = dissatisfied/ disagree; 3 GRID = neither disagree nor agree; 4 GRID = agree/ good/ satisfied; 5 GRID= excellent/ fully satisfied/ fully agreed.)



NETFLIX

1. This question related with the perception on different platforms on different criteria. In case of Netflix, maximum number of respondents cast their responses to the “variety of subjects/ programmes” the total score for the first criteria is 469.
2. In case of “content are awesome” the total score is 475.
3. The total score in “scripts are excellent” is 455
4. The response score for “easy to operate” is 479. Almost 45 respondents cast their opinion towards highly agree on the point that it is very easy to operate.
5. In case of “low cost” criteria maximum number of respondents cast their choice to “neither costly nor cheap”. Total score is 342.
6. The programmes were not very contemporary, but maximum number of responses depicted that the subject more or less contemporary and neither contemporary nor traditional. Total score is 418.
7. In case of excellent cinematography 49 respondents agreed on it. They were deeply satisfied on it. Total score 488.
8. When it come to the point of sexuality and violence in the programmes maximum no respondents confined themselves to the middle of the road comment, -“neither agree nor disagree”. Total score 388.
9. Clarity in picture and sound is one of the major elements where maximum numbers of respondents were highly agreed. Total score = 496
10. Netflix has different subscription slab. Maximum numbers of respondents have subscribed more than one screen. So, it was one of the biggest factors to choose Netflix as most preferable one. Total score = 451

PLEASE CHOOSE ONE GRID FOR EACH CRITERIA AS PER YOUR EXPERIENCE FOR DISNEY-HOTSTAR (1 GRID= for not up to the mark/ completely disagree/ absolutely dissatisfied/poor; 2 GRID = dissatisfied/ disagree; 3 GRID = neither disagree nor agree; 4 GRID = agree/ good/ satisfied; 5 GRID= excellent/ fully satisfied/ fully agreed.)

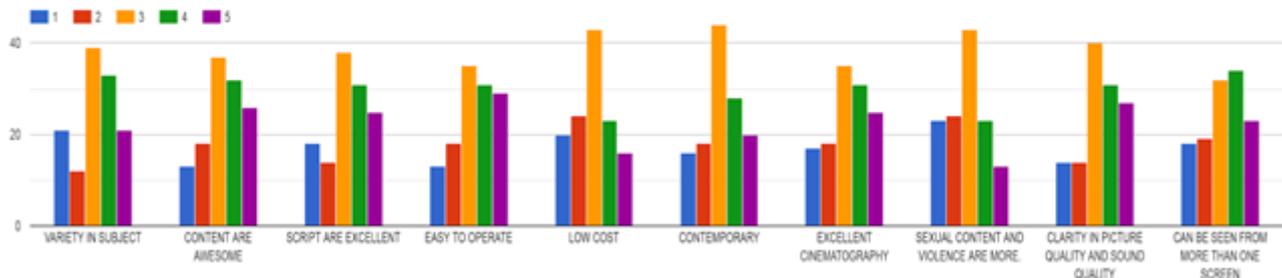


DISNEY-HOTSTAR

1. This question related with the perception on different platforms on different criteria. In case of Disney-Hostar, maximum number of respondents cast their responses to the “variety of subjects/ programmes” the total score for the first criteria is 447.
2. In case of “content are awesome” the total score is 465.
3. The total score in “scripts are excellent” is 462
4. The response score for “easy to operate” is 482. Almost 49 respondents cast their opinion towards highly agree on the point that it is very easy to operate.
5. In case of “low cost” criteria maximum number of respondents cast their choice to “neither costly nor cheap” and cheap. Total score is 401.
6. The programmes were not very contemporary, but maximum number of responses depicted that the subject more or less contemporary and neither contemporary nor traditional. Total score is 421.
7. In case of excellent cinematography 39 respondents strongly agreed on it. They were deeply satisfied on it. Total score 462.
8. When it come to the point of sexuality and violence in the programmes maximum no respondents confined themselves to the middle of the road comment, -“neither agree nor disagree”. Total score 353.
9. Clarity in picture and sound is one of the major elements where maximum numbers of respondents were highly agreed. Total score = 465

10. Maximum numbers of respondents have subscribed more than one screen. So, it was one of the biggest factors to choose. total score = 433

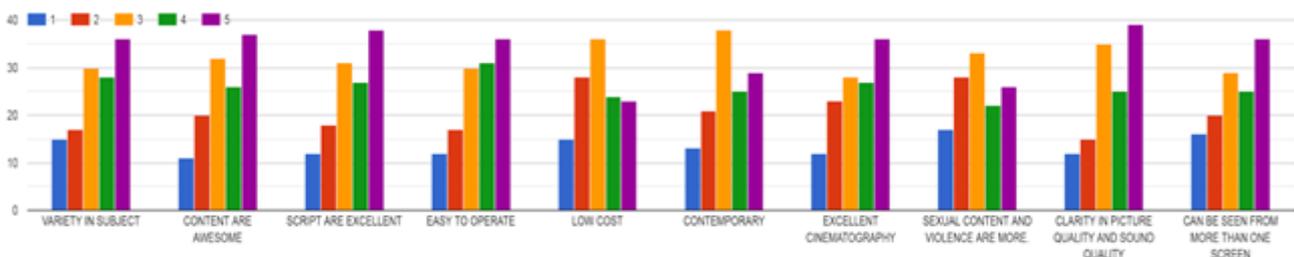
PLEASE CHOOSE ONE GRID FOR EACH CRITERIA AS PER YOUR EXPERIENCE FOR ZEE5 (1 GRID= for not up to the mark/ completely disagree/ absolutely dissatisfied/poor; 2 GRID = dissatisfied/ disagree; 3 GRID = neither disagree nor agree; 4 GRID = agree/ good/ satisfied; 5 GRID= excellent/ fully satisfied/ fully agreed.)



ZEE5

1. This question related with the perception on different platforms on different criteria. In case of ZEE5, maximum number of respondents cast their responses to the “variety of subjects/ programmes” the total score for the first criteria is 406.
2. In case of “content are awesome” the total score is 406.
3. The total score in “scripts are excellent” is 416
4. The response score for “easy to operate” is 432. Almost 38+31=96 respondents opined towards middle of the road responses.
5. In case of “low cost” criteria maximum number of respondents cast their choice to “neither costly nor cheap” and cheap. Total score is 380.
6. The programmes were not very contemporary, but maximum number of responses depicted that the subject more or less contemporary and neither contemporary nor traditional. Total score is 407.
7. In case of excellent cinematography 35 respondents chose “neither good nor bad” on it. Total score 407.
8. When it come to the point of sexuality and violence in the programmes maximum no respondents confined themselves to the middle of the road comment, -“neither agree nor disagree”. Total score 367.
9. Clarity in picture and sound is one of the major elements where maximum numbers of respondents were highly agreed. Total score = 429
10. Maximum numbers of respondents have subscribed more than one screen. So, it was one of the biggest factors to choose. total score -414

PLEASE CHOOSE ONE GRID FOR EACH CRITERIA AS PER YOUR EXPERIENCE FOR HOICHOI (1 GRID= for not up to the mark/ completely disagree/ absolutely dissatisfied/poor; 2 GRID = dissatisfied/ disagree; 3 GRID = neither disagree nor agree; 4 GRID = agree/ good/ satisfied; 5 GRID= excellent/ fully satisfied/ fully agreed.)

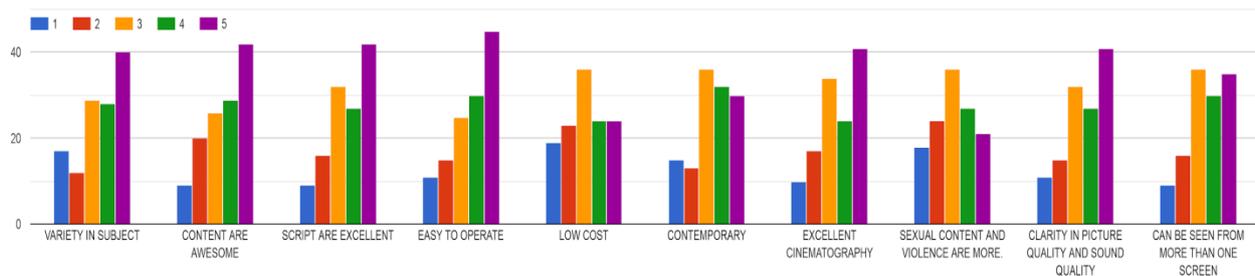


HOICHOI

1. This question related with the perception on different platforms on different criteria. In case of HOICHOI, maximum number of respondents cast their responses to the “variety of subjects/ programmes” the total score for the first criteria is 438.

2. In case of “content are awesome” the total score is 444.
3. The total score in “scripts are excellent” is 448.
4. The response score for “easy to operate” is 449. Almost 31+37=68 respondents opined towards SATISFACTION.
5. In case of “low cost” criteria maximum number of respondents cast their choice to “neither costly nor cheap” and cheap. Total score is 402.
6. The programmes were not very contemporary, but maximum number of responses depicted that the subject more or less contemporary and neither contemporary nor traditional. Total score is 438.
7. In case of excellent cinematography 38 respondents chose “neither good nor bad” on it. Total score 440.
8. When it come to the point of sexuality and violence in the programmes maximum no respondents confined themselves to the middle of the road comment, -“neither agree nor disagree”. Total score 397.
9. Clarity in picture and sound is one of the major elements where maximum numbers of respondents were highly agreed. Total score = 450
10. Maximum numbers of respondents have subscribed more than one screen. So, it was one of the biggest factors to choose. total score -434

PLEASE CHOOSE ONE GRID FOR EACH CRITERIA AS PER YOUR EXPERIENCE FOR AMAZON PRIME (1 GRID= for not up to the mark/ completely disagree/ absolutely dissatisfied/poor; 2 GRID = dissatisfied/ disagree; 3 GRID = neither disagree nor agree; 4 GRID = agree/ good/ satisfied; 5 GRID= excellent/ fully satisfied/ fully agreed.)



AMAZON PRIME

1. This question related with the perception on different platforms on different criteria. In case of AMAZON PRIME, maximum number of respondents cast their responses to the “variety of subjects/ programmes” the total score for the first criteria is 493.
2. In case of “content are awesome” the total score is 465.
3. The total score in “scripts are excellent” is 464.
4. The response score for “easy to operate” is 473. Almost 43 respondents opined towards HIGHLY SATISFACTION.
5. In case of “low cost” criteria maximum number of respondents cast their choice to “neither costly nor cheap” and cheap. Total score is 402.
6. The programmes were not very contemporary, but maximum number of responses depicted that the subject more or less contemporary and neither contemporary nor traditional. Total score is 439.
7. In case of excellent cinematography 43 respondents completely agreed with it. Total score 458.
8. When it come to the point of sexuality and violence in the programmes maximum no respondents confined themselves to the middle of the road comment, -“neither agree nor disagree”. Total score 395.
9. Clarity in picture and sound is one of the major elements where maximum numbers of respondents were highly agreed. Total score = 463
10. Maximum numbers of respondents have subscribed more than one screen. So, it was one of the biggest factors to choose. total score = 456

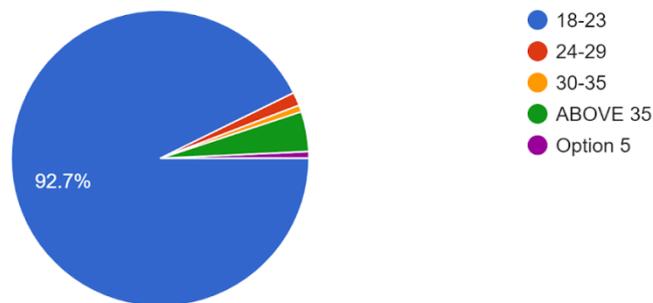
Comparison of total score of different criteria

Criteria	Different OTT platform				
	NETFLIX	DISNEY-HOTSTAR	ZEE5	HOICHOI	AMAZON PRIME
VARIETY IN SUBJECT	459	447	406	438	493
CONTENT ARE AWESOME	475	465	406	444	465
SCRIPT ARE EXCELLENT	455	462	416	448	464
EASY TO OPERATE	479	482	432	449	473
LOW COST	342	401	380	402	402
CONTEMPORARY	418	421	407	438	439
EXCELLENT CINEMATOGRAPHY	488	462	417	440	458
SEXUAL CONTENT AND VIOLENCE ARE MORE.	388	353	364	397	395
CLARITY IN PICTURE QUALITY AND SOUND QUALITY	496	465	429	450	463
CAN BE SEEN FROM MORE THAN SCREEN	451	433	414	434	456
Total Score	4451	4391	4071	4340	4508
Rank	II	III	V	IV	I

DEMOGRAPHIC PROFILE:

Age (in years)

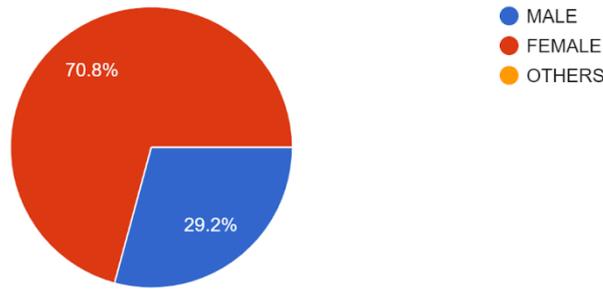
137 responses



Age	Distribution (%)
18-23	92.7
24-29	2.2
31-35	0.7
Above 35	4.4

GENDER

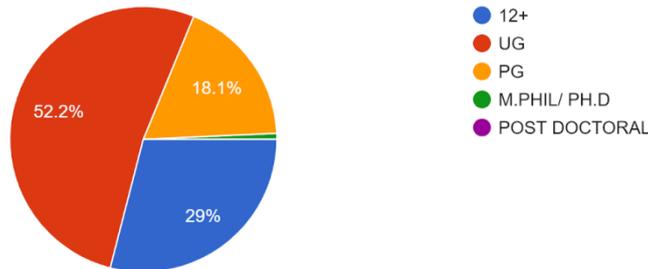
137 responses



Gender	Distribution (%)
Male	29.2
Female	70.8

Educational Qualification

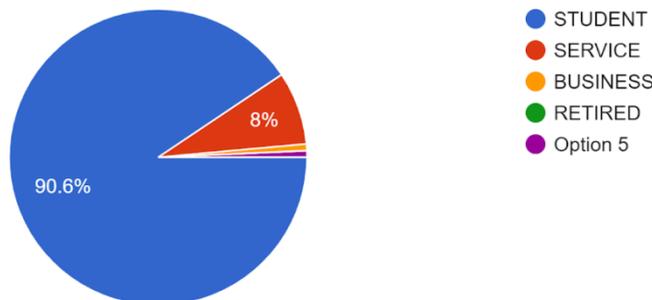
138 responses



Educational Qualification	Distribution (%)
12+	29
UG	52.2
PG	18.1
M.PHIL/PH.D	0.7
POST DOCTORAL	NIL

Occupation

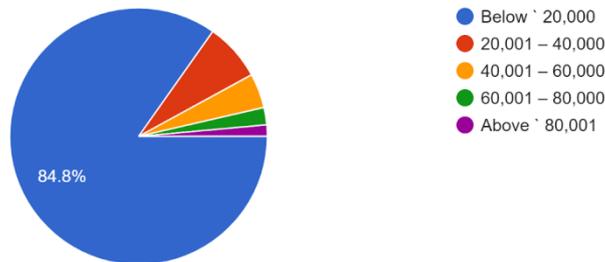
138 responses



OCCUPATION	Distribution (%)
STUDENT	90.6
SERVICE	8.0
BUSINESS	1.4
RETIRED	NIL

Monthly Income (in Rs. per month)

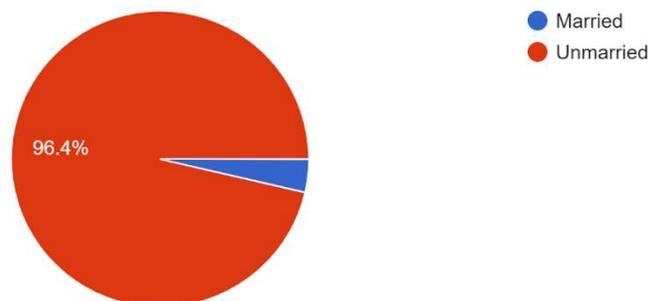
138 responses



MONTHLY INCOME (RS./MONTH)	Distribution (%)
BELOW 20,000	84.8
20,001-40,000	7.2
40,001-60,000	4.3
60,001-80,000	2.2
ABOVE 80,001	1.5

Marital Status

138 responses



MARRITAL STATUS	Distribution (%)
UNMARRIED	96.4
MARRIED	3.6

District wise Distribution:

District	No. of respondents
Norh 24 Parganas	40
South 24 Parganas	21
Kolkata	31
Hoghly	12
Howrah	9
Murshidabad	2
Daejeeling	1
Paschim Burdwan	2
Purba Burdwan	3
Purba Medinipur	5
Paschim Medinipur	2
Total	137

CONCLUSION:

1. DISNEY-HOTSTAR enjoys highest recall value.
2. As per the responses DISNEY-HOTSTAR is the best OTT platform for its content, wide range of varieties, Hindi and foreign movies, etc.

3. 57.7% of total respondents liked Disney-Hotstar, followed by Netflix 56.9% and Amazon Prime 45.3%. But, Astonishingly, 59.9% of the respondents have got MX player as it was free in the past. Vernacular platform, Hoichoi is also having very good share with 41.6%. Zee5, Voot are having 37.2% and 27% responses respectively.
4. Maximum number of respondents, i.e., 47.4 % agreed that Netflix is the best OTT Platform followed by DISNEY-HOTSTAR 19.7%. Hoichoi. Amazon-prime and Zee5 shared 17.5%, 11.7% and 3.7% preferences respectively.
5. Web series have been seen by Maximum number of respondents, i.e, 79.4% followed by movies 76.2%. Reality show have also been seen by 28.6% respondents and sports programmes are also seen by 27% respondents. The astonishing fact which has been revealed is 23% respondents are viewing mega serials which are also available in the satellite channel. They are also keen to view those megas as repeat telecast.
6. The responses revealed that 65.1% respondents spent their maximum time towards web series while 20.6% respondents liked to see Movies.
7. 57.7% of total respondents liked Disney-Hotstar, followed by Netflix 56.9% and Amazon Prime 45.3%. But, Astonishingly, 59.9% of the respondents have got MX player as it was free in the past. Vernacular platform, Hoichoi is also having very good share with 41.6%. Zee5, Voot are having 37.2% and 27% responses respectively.
8. Hoichoi is also very popular OTT medium, liked by huge number of audience as it is in Bengali and different types of Programmes are shown in this platform.
9. The cost of Netflix is low as compared to the other platforms as perceived by the respondents
10. According to total score by using the scale the following result have been obtained:
 - I. AMAZON PRIME RANKED FIRST WITH 4508 SCORE
 - II. NETFLIX RANKED SECOND WITH 4451 SCORE
 - III. DISNEY-HOTSTAR RANKED THIRD WITH 4391 SCORE
 - IV. HOICHOI RANKED FOURTH WITH 4340 SCORE
 - V. ZEE5 RANKED FIFTH WITH 4071 SCORE.
11. 95% of respondents were unaware about the OTT platforms before pandemic.
12. OTT platforms were explored in the lockdown period.
13. These platforms are very much accepted in age group of 16-45 age group. OTT platforms have become obsession of 16-35 age group.

RECOMMENDATION:

1. Due to pandemic the OTT platform have become more popular than that of cinema hall and multiplexes.
2. People can get entertainment from House in relax mood.
3. Viewers can see same scene different times as per their wish.
4. They can also rewind, pause and debarred their viewing as per their wish.
5. In order to sustain in the market some platforms have introduced games.
6. In near future the multiplexes will be in threat, if don't modify their offerings to the market.

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THE IMPACT OF GLOBALISATION ON BUSINESS**Prof. Samwel Bhira Maci**

Assistant Professor, Shri Ram College of Commerce

ABSTRACT

The modern liberal, capitalistic and economic action becomes a conglomerate of factors and reasons, analysis, information, means, mediums, skills and predispositions. In terms of minimized barriers and openness of the world, the inevitable process of the globalization and the business actions represent projects that are facing success potentials, as well as risk and failure potentials. The indisputable accent on these aspects is certainly the success and the reliability of the business ventures for which the ultimate goal is the economic satisfaction, minimizing the risks as well as the establishment of long-term experiences in order to maintain a particular enterprise in a particular environment. The participation on the world's global markets, the internationalization and the transfer of the business activities on all geographic meridians, encountering different and often uncertain environments is a constant business story of the international economic activity for at least three centuries ago. The global economic interaction is as old as it is old the society in its more or less organized form. From the industrial revolution until today, there is ongoing irreversible global economic integration. The reasons are simple, business and profits do not recognize borders, national and cultural unsurpassed characteristics, where more or less a mutual benefit of certain cooperation is recognized, a business connection is immediately established. **KEY WORDS:** globalization, internationalization, business, global markets, economic integration

Introduction The global changes in the world, changes in political, economic and business activities as well as the development of technology, transport and communications, impose the need for enterprises in its struggle for survival, to change their strategies and go out from the borders of their own country. Limited market, competitive pressure, demand for cheaper resources and the dynamics of the postmodern era, forcing business leaders to change their focus from traditional targets to alternative measures for successful business and the entrance on global markets, with the purpose of making competitive advantage. The impact of globalization on the business International business is a term used to describe all commercial transactions, in general, (private and governmental, sales, investments, logistics and transport) which occur between 1 Master in MBA, St. Franc Preshern 122, 1000 Skopje, email: katerina.ristovska@gmail.com View metadata, citation and similar papers at core.ac.uk brought to you by CORE provided by EBOOKS Repository

84 Economic Analysis (2014, Vol. 47, No. 3-4, 83-89) two or more regions, countries and nations beyond their political borders (Radebaugh & Sullivan, 2007). International business refers to those business activities which include crossborder transactions of goods, services or resources between two or more nations. Transactions of economic resources include capital, skills, people for international production of physical goods or services, such as finance, banking, insurance, construction (Joshi, 2009). According to Rugman and Collinson, international business analyzes transactions that take place across national borders in order to meet the needs of individuals and organizations. These economic transactions consist of trade (imports and exports) and foreign direct investment (Rugman, Collinson, & Hodgetts, 2006). According to Ball, international business is a business whose activities are carried out beyond the borders of their country and here not only include international trade and international production but growing service trade in areas such as transport, tourism, advertising, construction, retail and mass communication (Ball, McCulloch Jr., Frantz, Geringer, & Minor, 2002). The companies that are active in international business are called multinational enterprises. Multinational enterprise is an enterprise or corporation that owns substantial resources and performs various business activities through a network of branches located in different countries and each branch form its business strategy, based on the different market characteristics (Cavusgil, Knight, & Riesenberger, 2008). Multinational company is based in one country but has business activities in several countries. There are opinions that the multinational company is one that is so structured that conducts business or property held in many countries or a company is organized into global production parts. The reasons why a company becomes a multinational, Ansoff separates the two categories (Ansoff, 1984):

- Operational needs: providing materials, equipment, technology and release of surplus production;
- Strategic needs: ensuring the inviolability of future changes in the external environment, steady growth (maintaining historic patterns of growth, avoiding stagnation caused by saturation, increasing the volume of business, increasing the rate of growth) and better profitability.

The development of international business activities coincided with widespread phenomenon of globalization of markets (Cavusgil, Knight, & Riesenberger, 2008). The globalization of markets refers to the growing economic integration and the growing interdependence of countries worldwide. Internationalization of the companies refers to the tendency of the companies to systematically increase the international scope of their business activities, while globalization refers to a makrotrend intensive economic relations between the countries in the

world. Globalization encourages companies to internationalize and to substantially increase the volume and types of cross-border transactions in goods, services and capital. Also, the globalization leads to rapid dissemination and diffusion of products, technology and knowledge in the world, regardless of the origin. The process of globalization is a natural process that is a result of the growing and accelerated process of generalizing of the character and process of production. The development of science, engineering and technology and the expansion of markets for goods, worldwide, lead to internationalization of economic and financial developments and their global deployment. If globalization is understood as a process that leads to greater economic integration of national economies, as a process of fragmentation of the world economy and the international economy, than the globalization is a process of opening of national economies through the removal of economic and financial boundaries of national economies and thus their transformation into an international economic and financial market (Jovanovski, 2007). Globalization is a worldwide trend, through which economies in the world lose their borders and connect to each other. The companies are no longer imprisoned in their borders and can implement a wide range of business activities around the world. Many companies are present in markets around the world, procured their raw produce or conduct research and development worldwide. Trade barriers fall and global trade between countries in goods and services is growing faster than domestic production. As a result of this, companies can not afford the luxury to assume that the success of the domestic market will lead to longterm profitability (Cullen & Parboteeah, 2010). The flow of money across national borders is freer, and companies seek better financing rates in the world and investors everywhere are looking for a more favorable return on investment. Globalization, developed from economic aspect, has two main components: the globalization of markets and globalization of production. The globalization of markets refers to the merging of historically different and separate national markets into one big global market. In recent years, constantly is discussed that the tastes and preferences of consumers in different countries and nations begin to resemble on a global level and the way that they help in the creating of a global market. The companies that offer standardized products worldwide, help in the creation of a global market. The most common global markets are not the markets for mass consumer products, because there are still differences between countries in terms of tastes and preferences, which still have great meaning and a sort of brake on globalization, but these are the markets for industrial goods and materials that have universal need the world. The globalization of production refers to the tendency of the companies to find suppliers of goods and services from locations around the world, in order to realize the advantage of national differences in price and quality of the factors of production. Companies do this in order to reduce overall costs and thereby to improve the quality or to improve the functionality of their product offering to compete more effectively (Hill, 2008). In economics, internationalization is seen as a process of increased involvement of enterprises in international markets (Susman, 2007). The process of globalization, the fight for survival, constant pressure and the need to preserve and strengthen the market position, force the companies to be willing to constantly innovate and explore opportunities for achieving competitive advantage and expanding business activities outside the domestic market. Entrance of the companies in the global market becomes inevitable not only because of limitation of the domestic market but also because of the globalization; the domestic market share is under threat from foreign competition (Bartels, Buckley, & Mariano, 2009). There are several specific factors that promote globalization and guide enterprises to strive for business development and growth through the international and global operations and include: political changes, development of technology, international business climate, market development, expenses and competition (Ball, McCulloch, Geringer, Minor, & McNett, 2001). 86 Economic Analysis (2014, Vol. 47, No. 3-4, 83-89) • Political changes. The globalization trend of unifying and socializing the global community, as well as, forming preferential trade agreements and groupings such as NAFTA and the European Union, which united more nations in a single market, allow the companies significant market opportunities. Two aspects of this trend, which contribute to the globalization of business operations are: progressive reduction of barriers for trade and foreign investment by most governments, which leads to intense opening new markets by international companies, which also exported them and build production facilities in them, and the privatization of most of the industry in the former communist countries, as well as opening up their economies to global competition. • Development of technology. The development of computing and communication technologies has enabled increased flow of ideas and information across the borders of the countries, providing introduction of the consumers with the goods worldwide. Internet and networking have enabled smaller companies to compete globally, as a result of the rapid flow of information, regardless of the physical location of the seller or buyer. Also, allows international companies to hold corporate meetings among managers from headquarters and branches, without wasting unnecessary time for travel. • International business climate. The development of communication and information technologies have contributed to the process of globalization, but also provided instruments that facilitated the processes of globalization. Newly emerging markets also recognize the economic benefits,

technological development and growth opportunities that globalization provides them. • Development of markets. Information and communication technologies, the rapid development of international tourism, widespread cultural exchange and improved the living standards, in many developing countries have contributed to the emergence of a group of consumers in different countries and regions of the world with similar educational profiles, lifestyle, purchasing power and for good products, as well as, aspirations for high quality. This scenario, in combination with the liberalization of international trade and the availability of global distribution channels, opens great opportunities for companies that want to offer their products to global markets. Large market potential exist outside of the domestic market, that is why the companies go out on the foreign markets, generate sales and have opportunities for profit that cannot be achieved at home. • Expenses. The liberalization of trade and investment flows, which emerged in the 80s of the last century, which inexorably moved forward, is a stimulus for globalization of the businesses. Trade liberalization, global consumer habits, rising development costs and the need for economies of scale, pressure from foreign competitors in the domestic market as well as the development of information and communication technologies, are considered drivers of the globalization. Because of the need to introduce new products and investment in research, development and innovation, achieving economies of scale, reduce costs and access to cheaper raw materials; companies are forced to plan activities, taking into consideration the global market. Economies of scale and cost reduction are the main goal of management. That is why companies decide to locate production in countries where the cost of developing and producing are smaller. • Competition. One of the reasons that the companies join global strategies is the need of maintaining or gaining a competitive advantage in foreign markets and avoiding Ristovska, K., et al., The Impact of Globalization, EA (2014, Vol. 47, No. 3-4, 83-89) 87 competition in the domestic market. Competition in international markets is huge and growing, with more multinational competitors who win markets worldwide. The companies improve their competitive position by opposing competitors in international markets or premature intrusion into the domestic market of the competitor in order to destabilize or to suppress its development. As the globalization increases the speed and prevalence, and for the companies more opportunities are opening easily, to perform on the international markets. The managers develop and adapt strategies for internationalization in order to transform their organizations into globally competitive enterprises. Managers seek to coordinate the supply, production, marketing and other activities based on international activities. The organization of the company globally is a challenge and requires strategic positioning, organizational skills, a high degree of coordination and integration, attention to the needs of individual markets and the implementation of common processes. The strategy, in an international context, is an organization plan for positive positioning, compared to the competitors. This plan lead the company to selected customers, markets, products and services in global markets, not just a particular international market. The strategy in an international context should help managers to formulate a strong international vision, allocation of scarce resources on the World, the participation of the major markets, implementation of global partnerships, and involvement in competitive activities in response to global rivals and establish activities that add additional value on a global level (Cavusgil, Yeniyurt, & Townsend, 2004). When the companies compete outside of their country, they face a number of challenges and pressures. These pressures and challenges to maintain competitiveness, require from the companies cut costs, in order the consumers do not evaluate their products or services as too expensive. This leads to the need to locate production facilities in places where production costs are lower, and the development of high standardized products in most countries. In the context of the pressure to reduce costs, managers must strive to be ready to respond to local pressures to adapt products to local market requirements, where the company is active. This requires differentiation of their offer and strategies in different countries, in order to preserve the tastes and preferences of consumers, but also the differentiation of distribution channels, management of human resources, and government regulations. Because the strategies and tactics for differentiation of products and services in local markets create additional costs, they can also lead to increased costs for the company. These two pressures that enterprises face, resulting in four basic strategies that the companies use to compete in the global market. These strategies are: international, global, multi-domestic and transnational strategy (Dess, Lumpkin, & Taylor, 2004). The strategy that will be chosen by the company depends on the pressure faced by cost-cutting and the importance of adapting to local markets. Conclusion Today, the word international company is quite a common phenomenon, which reflects actual business transactions and large expanses between a number of people from different cultures and with different approaches. What unites them in the complex network of relationships is the need of development, rapid exchange of resources and tools and 88 Economic Analysis (2014, Vol. 47, No. 3-4, 83-89) integrated cooperation, which should contribute to ensuring cooperation and ensure the transfer of capital. Can be concluded that today's decisions for crossing domestic borders and internationalize the business is a prerequisite for serious growth and development of a business entity. As such, he is always searching and analysis of potential areas where the company from small or medium business entity would become a corporate

organization striving to constantly expanding and increasing its own portfolio. To make a decision to invest outside of the own borders is a complex and comprehensive process. This process is achieved through several stages and approaches that contain a longterm comprehensive analysis and scanning newly elected investment location. References Ansoff, H. I. 1984. *Implementing Strategic Management*. Prentice-Hall International, Englewood Cliffs, NJ. Ball, A. D., Wendell, H., McCulloch, Jr., Frantz, L. P., Geringer, J. M., Minor, S. M. 2001. *International Business – The Challenge of Global Competition*. International Edition, McGraw-Hill. Bartels, L. F., Buckley P., Mariano G. 2009. *Multinational Enterprises' Foreign Direct Investment Location Decisions within The Global Factory*. UNIDO, Vienna. Cavusgil, T. S., Yeniyurt, S., Townsend, J. 2004. "The Framework of a Global Company: A Conceptualization and Preliminary Validation". *Industrial Marketing Management*, 33. Cavusgil, T., Knight, G., Riesenberger, J. 2008. *International Business: Strategy, Management and the New Realities*. Prentice Hall. Cullen, B. J., Parboteeah, K. P. 2010. *International Business, Strategy And The Multinational Company*. Taylor & Francis. Daniels, D.J., Radebaugh, H.L., Sullivan, P.D. 2007. *International Business: environment and operations*. Prentice Hall. Dess, G., Lumpkin, G.T., Taylor, M. 2004. *Strategic Management: Creating Competitive Advantages*. Hill, W. L. C. 2008. *Global business today*. McGraw-Hill Irwin. Joshi, M. R. 2009. *International Business*. Oxford University Press. Jovanovski, T. 2007. *Megjunarodni Finansii*. Skopje: Euro-Mak Kompanii. Susman, I. G. 2007. *Small and Medium-sized Enterprises and the Global Economy*. Edward Elgar Publishing. Uticaj globalizacije na poslovanje REZIME – Savremene liberalne, kapitalističke i ekonomske aktivnosti postaju konglomerat brojnih faktora i uzroka, analiza i tumačenja, podataka, medija, sposobnosti i predispozicija. Kroz minimiziranje barijera i širenje otvorenosti ka svetu, neizbežni proces globalizacije omogućava poslovnim projektima potencijale za uspeh, ali istovremeno sa sobom nosi rizik od neuspeha. Neosporni akcenat na polju globalizacije jeste uspeh i pouzdanost poslovnih poduhvata koji za krajni cilj imaju ekonomsko zadovoljstvo, minimiziranje poslovnog rizika kao i uspostavljanje dugoročnih iskustava kako bi se poslovanje određenog preduzeća održalo u dužem vremenskom periodu u određenom okruženju. Internacionalizacija, učešće na globalnim tržištima i obavljanje poslovnih Ristovska, K., et al., *The Impact of Globalization*, EA (2014, Vol. 47, No. 3-4, 83-89) 89 aktivnosti na svim geografskim meridijanima, uz različita i često neizvesna okruženja, najmanje tri veka predstavljaju suštinu međunarodnih poslovnih aktivnosti preduzeća. Globalna ekonomska aktivnost, u više ili manje organizovanom obliku, je stara koliko je staro društvo. Tekuća globalna ekonomska interakcija se odvija neprekidno, od industrijske revolucije do danas. Razlozi za globalizaciju su jednostavni, poslovna dobit ne poznaje granice, nacionalne i kulturološke karakteristike se zadržavaju a poslovna veza se odmah uspostavlja, osobito ako se radi o saradnji koja donosi obostranu korist. KLJUČNE REČI: globalizacija, internacionalizacija, poslovne aktivnosti, globalno tržište, ekonomska integracija Article history: Received: 8 April 2014 Accepted: 16 August 2014

A STUDY: COMPONENTS INFLUENCING BUYING OFFLINE OVER ONLINE RETAILERS**Dr. Sunita S Yadav**

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ABSTRACT

This is a study to find components which affect customers buying offline over online retailers. This study is important to retailers to help them in increasing their sale and attracting more customers to buy products from them. The project attempts to find factors influencing customers buying offline over online retailers. The project can be utilised by the offline and online retailers to help them in increasing their sales and attracting more customers to buy products from them. The objective was to find factors that attract customers to shop offline, to know the most preferred online shopping sites and offline shopping stores, to find most preferred products for purchasing from online and offline retailer, to analyse whether the qualification of the consumer affects the online and offline shopping, to find type of advertisements that attracts customers to purchase offline and online, to know why customers do not prefer online shopping. The methodology employed was to collect primary data from questionnaire filled through Google forms and the secondary data was collected from Economic Times and IBEF website. It was found that Tangibility of product, Trust, Convenience, Bargaining, Price, and More Varieties are the factors that attract customers to shop offline. Shopping preference of online is more than offline as the majority of the respondents were from age between 19-35. Majority of the people between this range are the users of smart phones which makes it easy for them to order online with just a few clicks purchase is made. Also majority of respondents are post graduate and graduate, thus smart enough to purchase online on their own. D mart, local shops, Big Bazaar, and Reliance smart are preferred options for offline shopping. Amazon, Flipkart and Myntra are preferred options for online shopping with 92% of respondents preferring these online sites. Clothes, electronics and Grocery items are products mostly purchased from offline retailers. Electronics and clothes together account for 78% of the products that are mostly purchased from online sites. Discount ads and sale ads are the major factors which attract people to purchase offline. Customers do not prefer online shopping because they find it risky, not authentic; it takes more delivery time and gives misleading information. It is recommended that offline retailers should try to keep more variety of products than online sites, also they should deliver on time, provide correct information about the products to customers, should build trust in customers' mind in order to attract customers and get more sales.

INTRODUCTION

Online retail sales as a percentage of total sales have shown a tremendous rise, going from 0.8 percent in 2014 to 3.6 percent of total retail sales in 2017. While the growth has been enormous and will continue to be fast, the fact that 95 percent of the market is still with the offline sector drives home a few important points. Access to offline stores provides a vast distribution network and brand accessibility, especially beyond the Tier 1 cities. Therefore, for a player interested in a higher market share, an offline presence is non-negotiable. Additionally, besides the offline versus online demarcation, it is essential to understand that 90 percent of all retail in India is in the unorganized sector. The unorganized sector A— primarily, physical stores - thrives due to an extensive last-mile distribution network and long-term relationships. The key for new players is not necessarily the disruption of the unorganized sector but having access to retail stores that provide organized players with the same distribution networks and concomitant advantages.

Quite often discussions focus on the market share of online versus offline retail. While it is a relevant topic, the more pertinent discussion is the overall retail market growth rate. The retail market in India is expected to cross \$1 trillion in the next three years. The greatest value generation for retail businesses is in capturing market growth as greater cash is generated by retail consumption.

A 2007 analysis by McKinsey titled "The Granularity of Growth" had some interesting lessons. A study of 200 large companies around the world showed that almost 80 percent of growth for the companies was driven by growth in the industry segments and successful mergers and acquisition strategies while only 20 percent was through gaining market share. The key learning for Indian retail players is that while market share matters, being a direct beneficiary of rising incomes in India is a lot more advantageous.

The increase in technology provides good opportunities to the seller to reach the customer in much faster, easier and in an economic way. Online shopping is emerging very fast in recent years. Now a day's internet holds the attention of the retail market. Millions and millions of people shop online. On the other hand purchasing of product from traditional market is continuing since years. Many customers go for purchasing offline so as to examine the product and hold the possession of the product just after the payment for the product. In this contemporary

world customer's loyalty depends upon the consistent ability to deliver quality, value and satisfaction. Some go for offline shopping, some for online and many go for both kind of shopping. However online shopping is easier for the people and has fewer prices than the offline shopping. While making any purchase decision consumer should know the medium to purchase whether online shopping or the offline shopping. Consumer should decide the channel for them which can best suit to their need and wants and which can satisfy them.

In this competitive world how consumer can decide the particular medium for their purchase of goods is very important to understand in a managerial point of view. (Laing and Lai, 2000) said that the internet shopping is the third best and most popular activity over internet after online shopping next comes the e-mail using, instant messaging and web browsing. These are even more important than watching or getting entertain by the internet or getting any information or news, this are the two very common thought which comes to the people's mind when considering the internet users do when they are online.

ONLINE SHOPPING

Online shopping is defined as purchasing items from Internet retailers as opposed to a shop or store. Buying books at Amazon.com instead of your local book store is an example of online shopping. Online contracts are classified as distance contracts, which means that the trader (service provider, seller) and the consumer (natural person who is acting for purposes which are outside his trade, business or profession), in lack of their simultaneous, actual and physical presence enter into contract not by meeting in person (e.g. in commercial premises, market, open-air market, via trade agent etc.), but only in an electronic way. The consumer, in case of online shopping can buy the selected product rapidly by doing some clicks from home or work saving time and energy in spite of the larger distance arising from the endless and unlimited market offered by the internet. In addition, the internet can also facilitate the shopping of consumers with reduced mobility. Since the consumer does not have to go to the premises of the trader, and is not limited by the opening hours, he/she can place an order at all times. Such items can also be purchased that are not available in the surroundings of the consumer, thus the choice of goods is significantly broader, and furthermore the delivery can be requested not only to the place of residence but to the workplace, as well. The offers on the internet can be easily compared, therefore the consumer can buy the product with the most favourable conditions (price, quality, other discounts) tailored to the individual's needs.

Factors Affecting Online Shopping

Online shopping becomes relevant in the last decade. The kind of business online retailer are doing is proof enough that they are providing some benefits to customer which offline shopping does not give to the customer.

Following are the factors affecting online shopping:

Risk: When customer buy products from online shopping they do not touch or feel the product in a physical sense.

Convenience: Online shopping is much more convenient than offline shopping. Instead of taking out your vehicle and visit shop to shop you can just sit at your home and do the shopping. It is convenient to sit at one place and shop the product of our choice without moving from place to place.

Anxiety: People's anxiety of exploring the sites and experimenting over them is also a matter of concern. Sometimes people those who are not very known to any sites like Flipkart, Myntra or any sites they just feel like it's a tough kind of activity over net and its complicated in there sense as they are not very fond of doing online shopping as it takes a time to even understand the product about its details.

Previous online experience: Previous experience is what matters actually as its hamper or sometime it keep good view or mood of people. There are two experiences one is about good and another is about bad.

Pricing Policy: Online retailers gets an inherent advantage in pricing as they don't have to bear expenses like store rent, bills etc. They can pass their price directly to customer and generally offer a lower price to customer than offline market.

Quality: The quality of product at online sites and offline stores vary a lot and then this determines the frequency of online shopping. Quality also carries good affecting nature over any kind of shopping.

Online trust: It depends on customer perception whether they trust a particular site and its product and services. Hence the frequency of online shopping also depends upon whether they trust a particular site or not.

Tangibility of the product: At the store the customer gets to touch and feel the product they purchase before buying which help the customer to take the decision to buy the product or not whether the product will suit the customer need or not.

Delivery time: The product ordered by the customer in online shopping takes a minimum of six to seven days to deliver the product to the customer. But in offline shopping the possession of the goods is immediately transferred to the buyer.

OFFLINE SHOPPING

On the flip side of the coin, there is also another way available for buying apparels, to epitomize, shopping in plaza or mart, because physical buying evokes advantage of touch and feel of the products and several other factors are there which are responsible for buying products from retail outlets like interactive buying and convenience of availability of products nearby. Now it depends upon various factors that how a consumer will feel satisfied by these shopping options available. Because people spend their time on internet as well as in shopping malls or retail stores.

Retail store is a place where the exchange of goods takes place with the customer and any business enterprise whose sales volume comes primarily from retailing.

Retailing is also defined as all the activities involved in selling goods or services directly to final consumers for their personal non-business use. (Kotler,1998)

Factors Affecting Offline Shopping

Offline shopping has existence since the existence of mankind. Offline shopping gives different types of benefits to the customer. There are some factors which affect the shopping offline those are as follows:

Less number of choices: There are limited numbers of choices when it comes to offline shopping. The numbers of varieties are limited.

Time consuming: It takes a lot of time to go shopping to a store. Distance from home or workplace to the store is time consuming.

Information: What generally happens is that the information provided by a shopkeeper isn't correct. Also this information doesn't always suit our needs.

Research Methodology

Research is a systematic method of finding solutions to problems. It is essentially an investigation, a recording and an analysis of evidence for the purpose of gaining knowledge. According to Clifford woody, "research comprises of defining and redefining problem, formulating hypothesis or suggested solutions, collecting, organizing and evaluating

Objectives of the Study

To find factors that attract customers to shop offline.

To know the most preferred online shopping sites and offline shopping stores.

To find most preferred products for purchasing from online and offline retailers.

To analyse whether the qualification of the consumer affect the online and offlineshopping.

To find type of advertisements attracts customers to purchase offline and online.

To know why customers not prefer online shopping.

Sources of Data

This part of study defines all the process of data collection. When it comes to data collection, there are two methods in general used by researcher to collect data, primary and secondary method. The data was collected through Primary and secondary sources.

Primary method

This includes observation method, interview method, and case study method. Primary data are in the form of "raw material" to which statistical methods are applied for the purpose of analysis and interpretations. The primary sources are discussion with employees, data collected through questionnaire. The methodology employed was to collect primary data from questionnaire filled through Google forms.

Secondary method

This is the method in which already collected data. The present study is based on combination of both qualitative and quantitative data. Secondary data are in the form of finished products as they have already been treated statistically in some form or other. The secondary data mainly consists of data and information collected from records, company websites and also discussion with the management of the organization. Secondary

data was also collected from journals, magazines and books. The secondary data was collected from Economic Times and IBEF website.

Sampling of Data

The target group is of different age, different age group people are considered because to know whether which group of people are involved more in the online shopping and which group of people is not confined to shop online. There are four division of age group in the interviews to examine which group is going for more online shopping and which group is going for more offline shopping.

Sample size:

Determining the size of sample that is needed for a particular piece of research. For this research 150 sample size is taken for the interviews. From this sample size the calculation of simple percentages for each variable is done.

Nature of Research:

Descriptive research, also known as statistical research, describes data and characteristics about the population or phenomenon being studied. Descriptive research answers the questions who, what, where, when and how. Although the data description is factual, accurate and systematic, the research cannot describe what caused a situation. Thus, descriptive research cannot be used to create a causal relationship, where one variable affects another. In other words, descriptive research can be said to have a low requirement for internal validity.

SCOPE OF THE STUDY

The project can be utilise by the offline and online retailers to help them in increasing their sales and attracting more customers to buy products from them. Research is a systematic method of finding solutions to problems. It is essentially an investigation, a recording and an analysis of evidence for the purpose of gaining knowledge. According to Clifford woody, "research comprises of defining and redefining problem, formulating hypothesis or suggested solutions, collecting, organizing and evaluating data, reaching conclusions, testing conclusions to determine whether they fit the formulated hypothesis".

LITERATURE REVIEW

The extensive literature review has been conducted to gain deeper understanding of research about online and offline customer and their experience. The review clarifies and simplifies the dominant dimension consumer consider when they make any online purchase decision. Following this, the major theoretical gap related to understanding what and why consumers do, and do not purchase using the Internet is explored with respect to the theories of retail change and consumer behaviour theory with particular reference to the buying decision process.

Chaing and Dholakia (2014) carried out a study in which they examined the purpose of customer to purchase goods online during their shopping. Mainly there are three variable in their study those affects the consumer to purchase online or to go offline. Those are the accessibility features of the shopping sites, the type of the products and their characteristic, and the actual price of the product. The study revealed that the accessibility and the convenience of the shopping sites create the intention in the customer to purchase or not. When there are difficulty faced by a consumer to purchase online then the customer switch to the offline shopping for the purchase behaviour and the consumer face difficulty in offline purchasing then they go to the online purchasing. After relating both the medium of shopping the consumer said that the online shopping is more convenient for them and gives more satisfaction which inspires the consumer to purchase online in the internet.

Iyer and Eastmen (2014) found that the population of senior who are more literate, more knowledgeable and who are more aware of the technology and those who have a positive behaviour towards online shopping and internet are more into online shopping. But the population of senior who are less aware of the internet and the shopping sites are less involved in the shopping sites because they do not have a positive attitude towards online shopping rather they are much more interested in offline shopping and the seniors who are more involved in the internet uses more online sites for purchasing the goods over the internet. The senior which have more knowledge about the internet and the shopping sites they compares both the shopping i.e. online and offline shopping for their purchasing of goods. However their knowledge and the use of internet by them has no connection with their age and their satisfaction level while purchasing online.

Tabatabaei (2009) has explored the opinion of the consumer who are purchasing online and the consumer who are purchasing from offline market. The objective is to know why the traditional customer chooses to shop online and what are the factor influence then to purchase online and what are the factor for them to not use the sites for shopping. He has done a survey of 264 respondents in a small mall and then those data were analysed

by him. All the customer of this study is literate and has knowledge on computer and internet. The survey consists some of the question like demographic profile, computer knowledge and the knowledge over the internet. The outcome of the study was that the consumers of online shopping use to shop online more than one time in a month and the consumer of offline shopping shop one to five times in a year from shopping sites.

Chaing and Roy (2003) focused on the consumer choice to shop on the internet and at the physical stores during the information acquisition period. A convenience sample of 34 students enrolled in undergraduate marketing class to select the product for testing, 56 products were developed based on the popularity of online shopping. The result shows that the consumer perceives shopping offline as inconvenient, online shopping intention was expected to be greater for search products than experience product.

CONCLUSION AND SUGGESTIONS

- Tangibility of product, Trust, Convenience, Bargaining, Price, and More Varieties are the factors that attract customers to shop offline.
- Shopping preference of online is more than offline as the majority of the respondents were from age 19-35. Majority of the people between this range are the users of smartphones which makes easy for them to order online with just few clicks purchase is made.
- Also majority of respondents are post graduate and graduate, thus smart enough to purchase online on their own.
- D mart, local shops, Big Bazaar, and Reliance smart are preferred option for offline shopping.
- Amazon, Flipkart and Myntra are preferred option for online shopping with 92% of respondents preferring this online sites.
- Clothes, electronics and Grocery items are products mostly purchased from offline retailers.
- Electronics and clothes together account for 78% of the products that are mostly purchased from online sites.
- Nearly 60% of respondents have experience the delivery of the ordered product from online sites on time.
- Since last 2 - 4 years people had started doing online shopping.
- Majority of people purchase once in every 2-3 months from online sites.
- Offline retailers should try to keep more variety of products than online sites in order to attract customers and get more sales.
- Discount ads and sale ads are the major factors which attracts people to purchase offline.
- Customers not prefer online shopping because they find it risky, not authentic; it takes more delivery time and gives misleading information.

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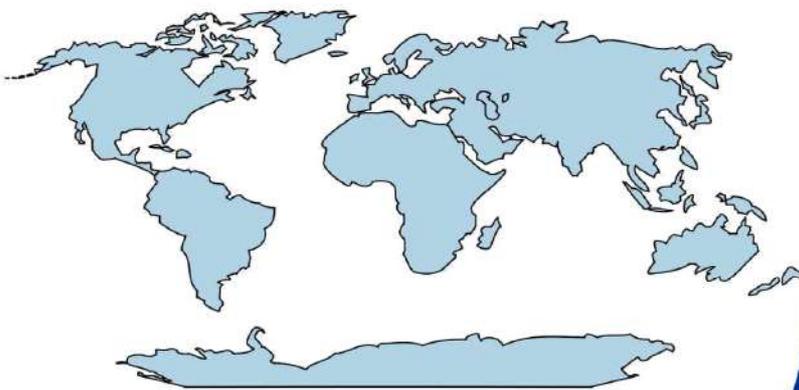
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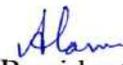
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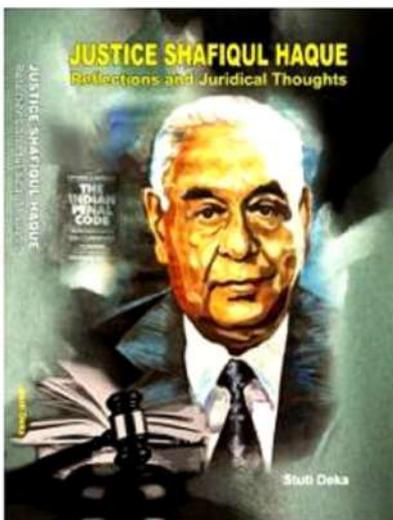


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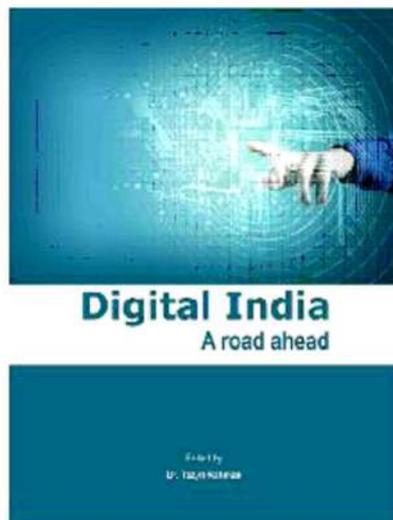
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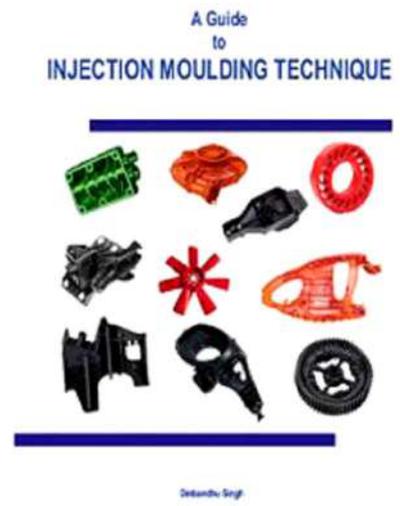
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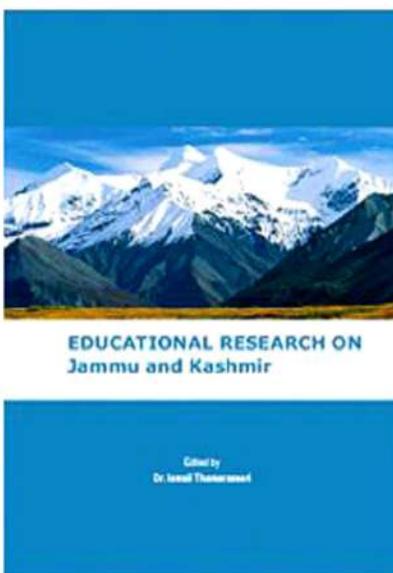
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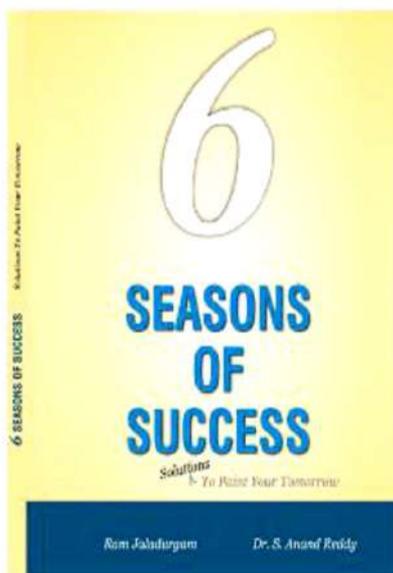
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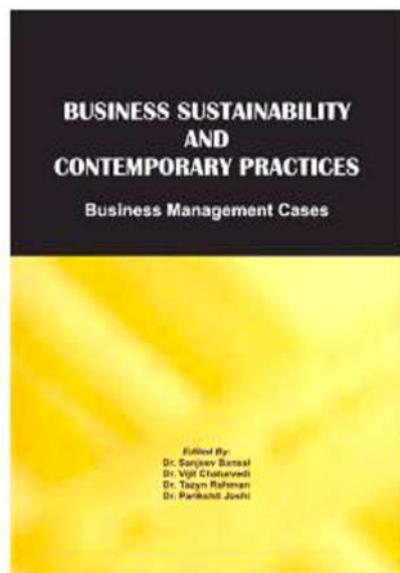
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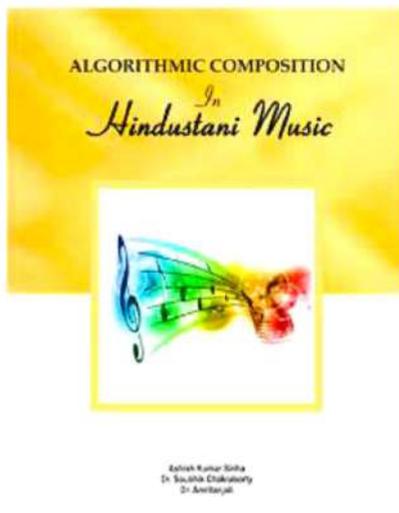
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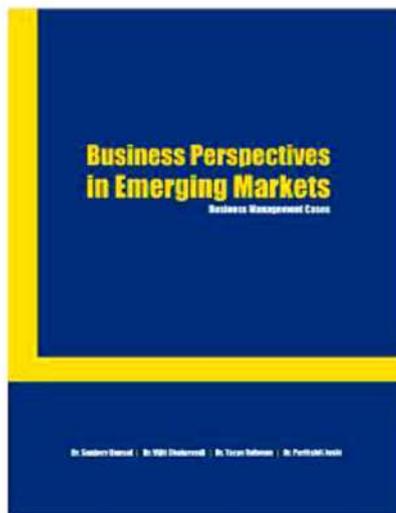
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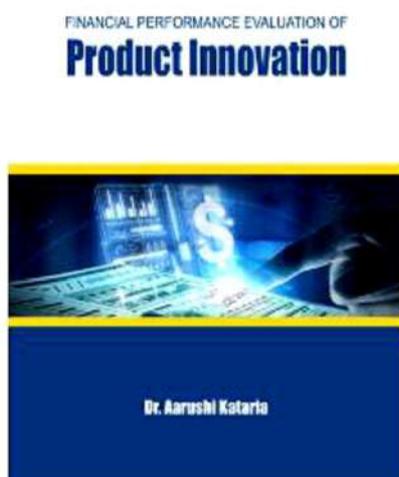
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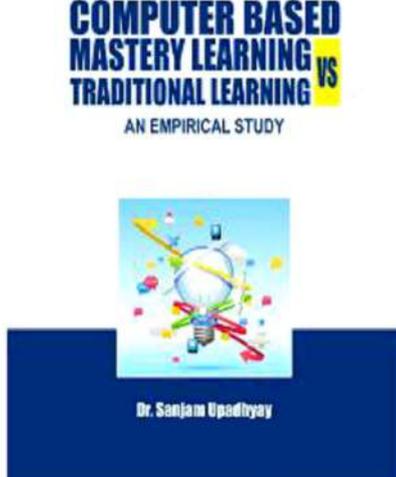
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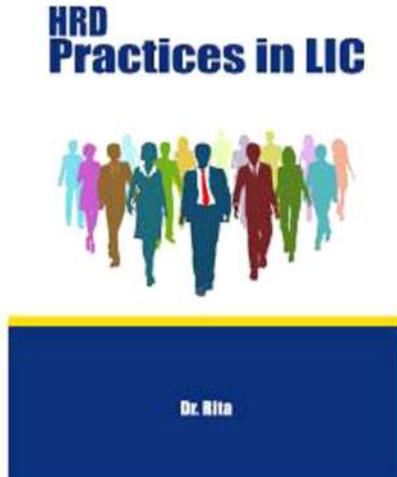
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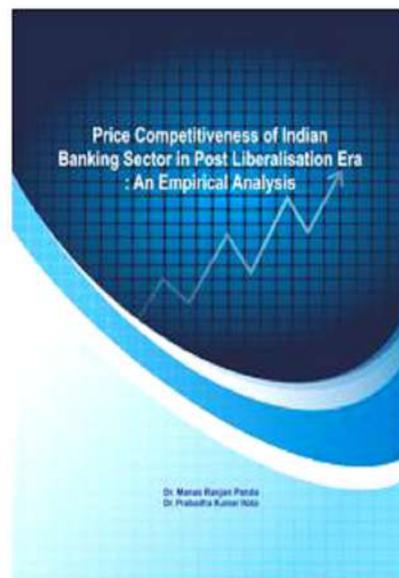
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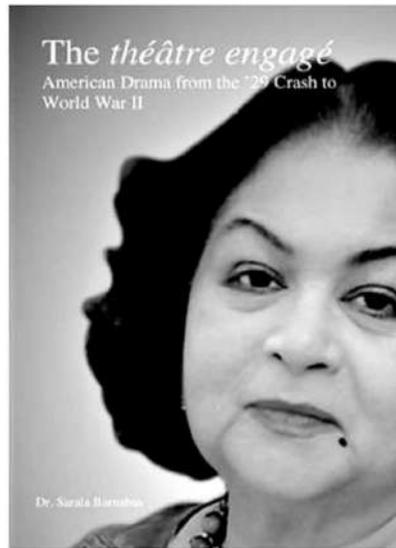
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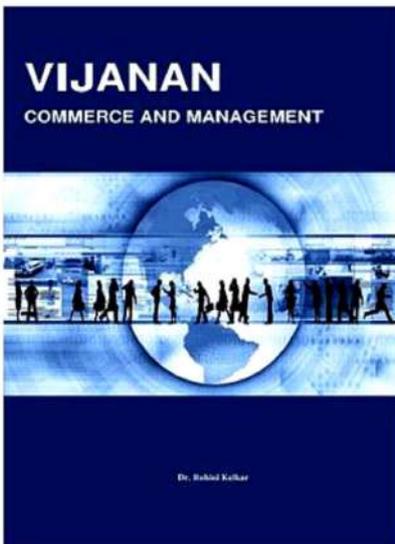
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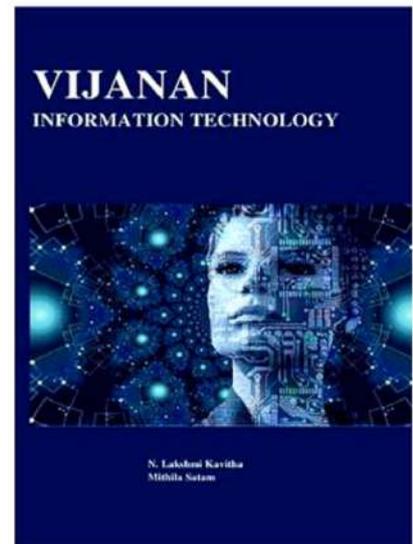
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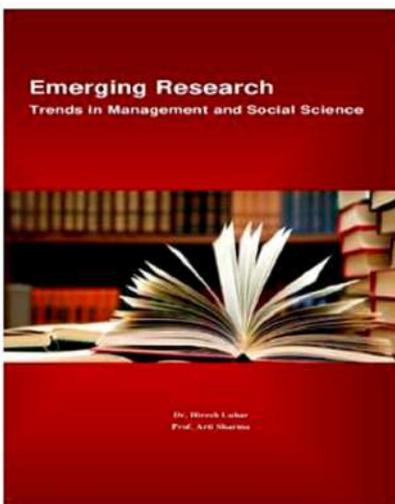
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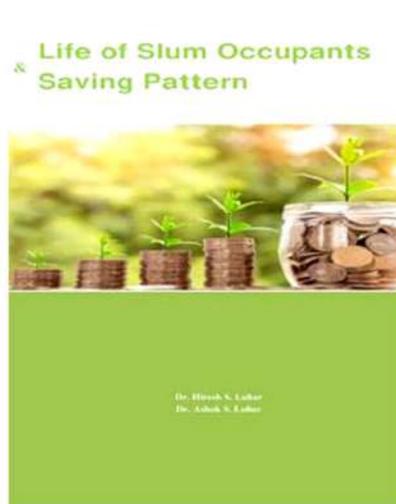
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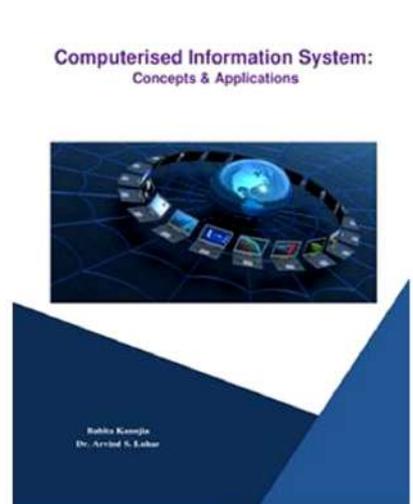
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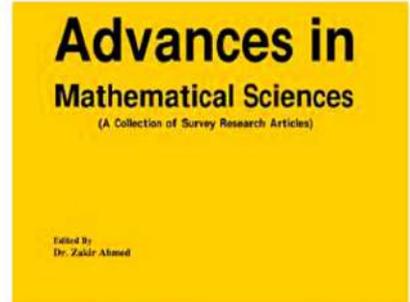
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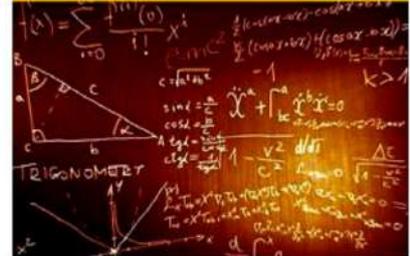
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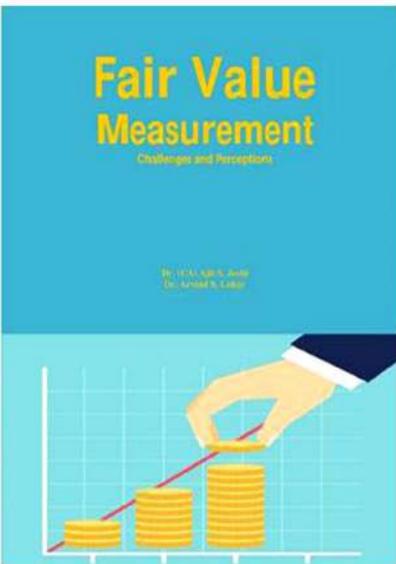
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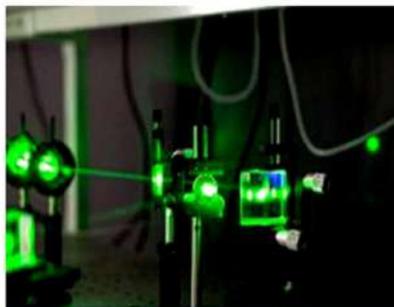


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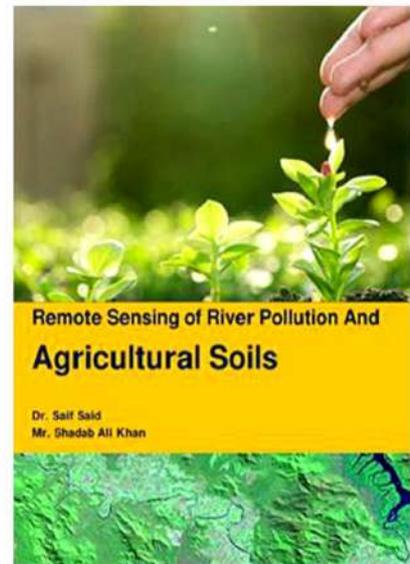
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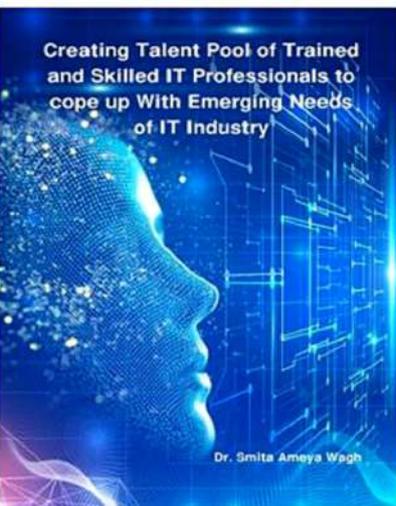
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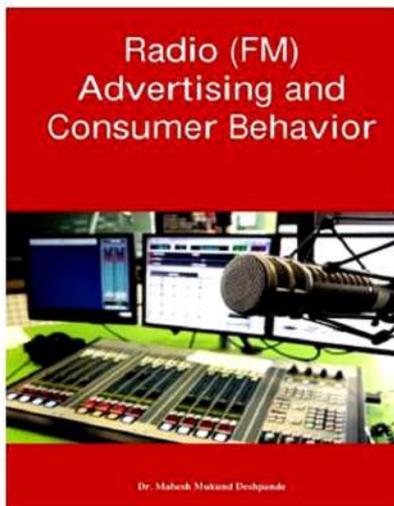
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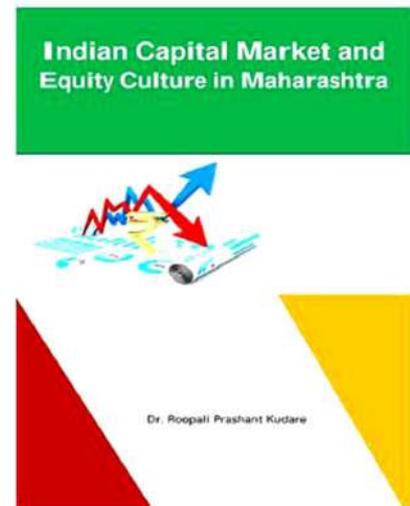
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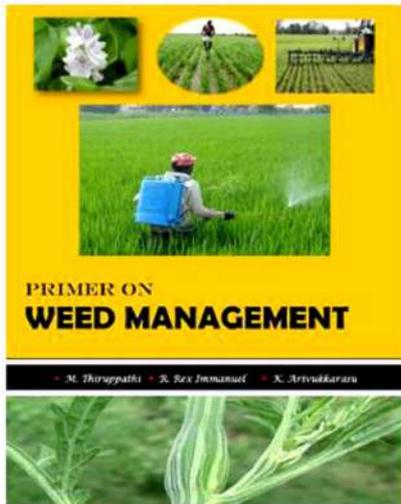
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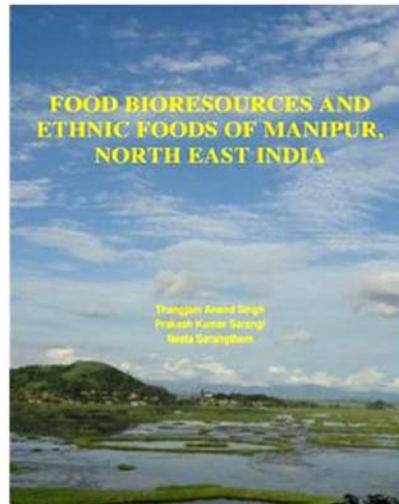
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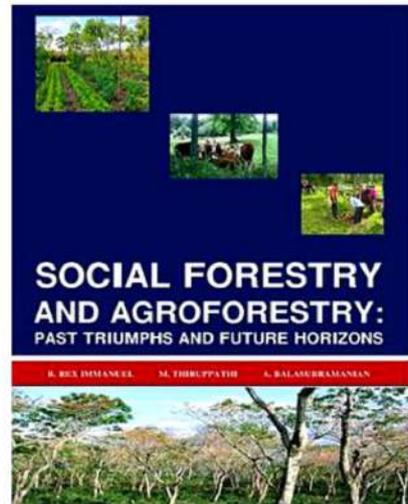
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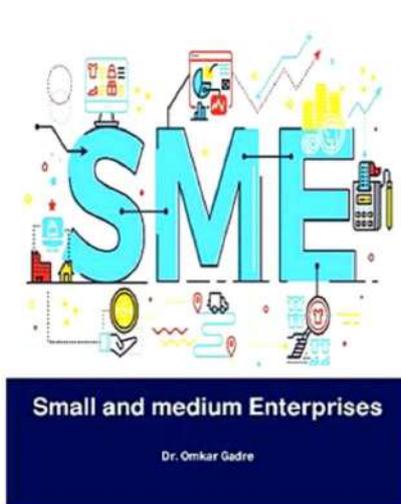
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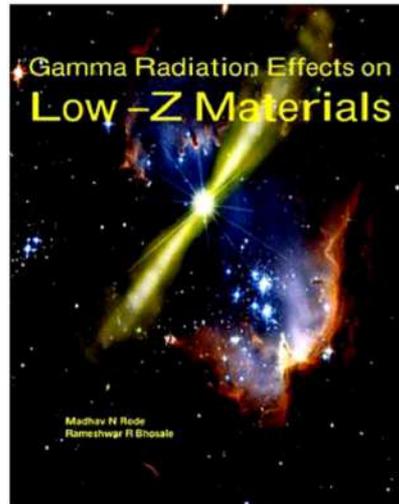
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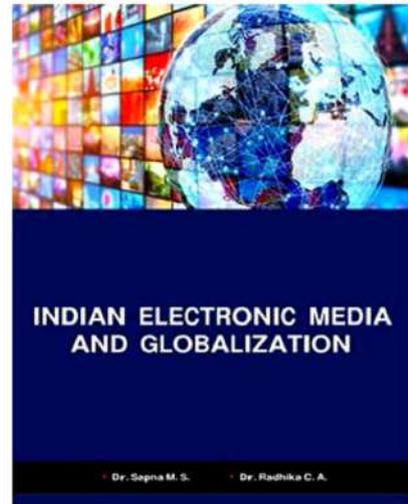
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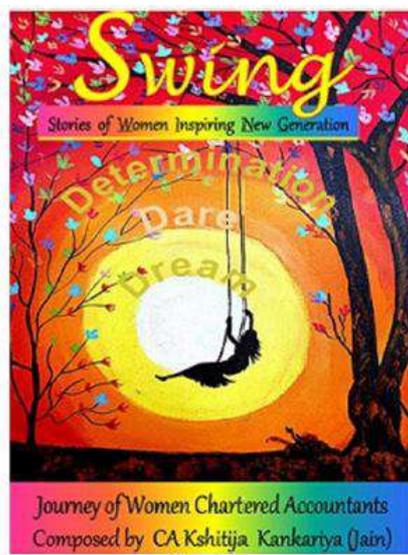
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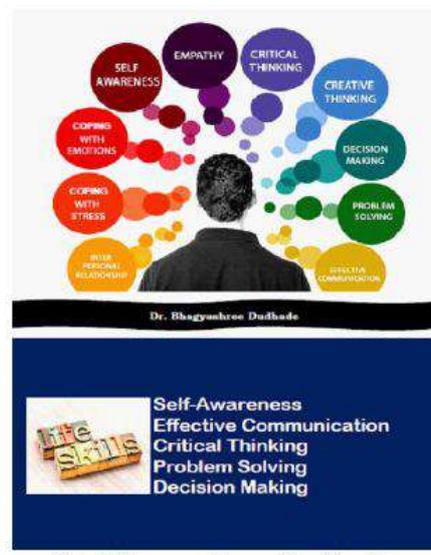
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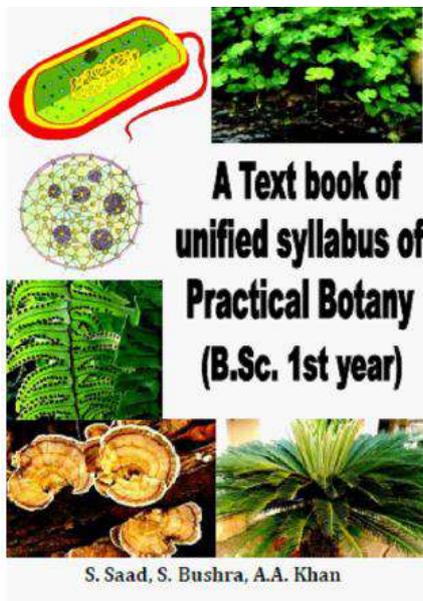
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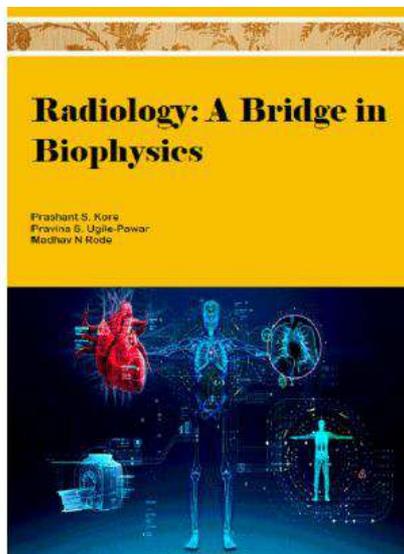


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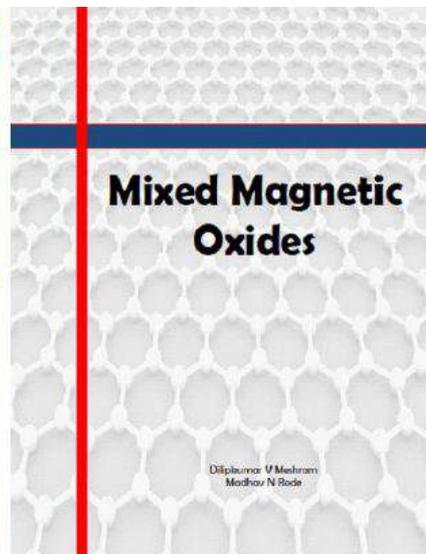
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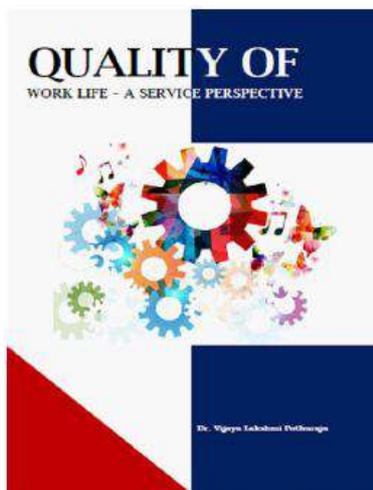
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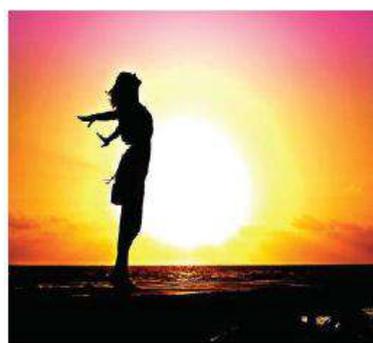
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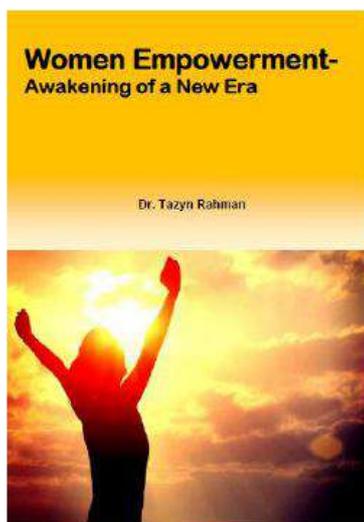
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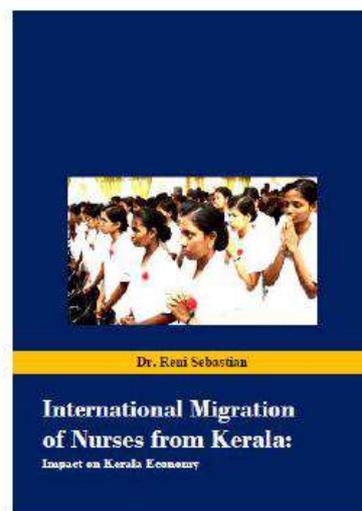
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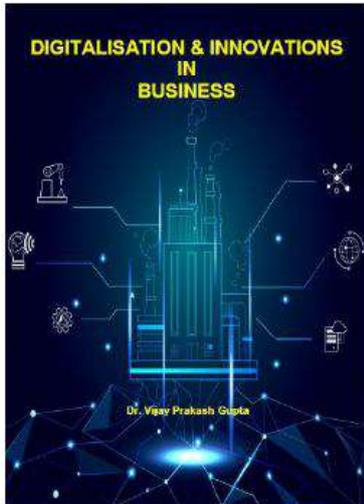
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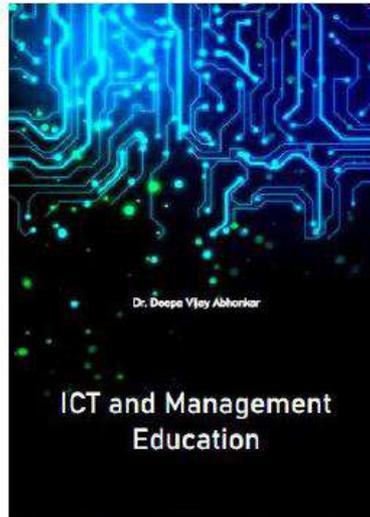
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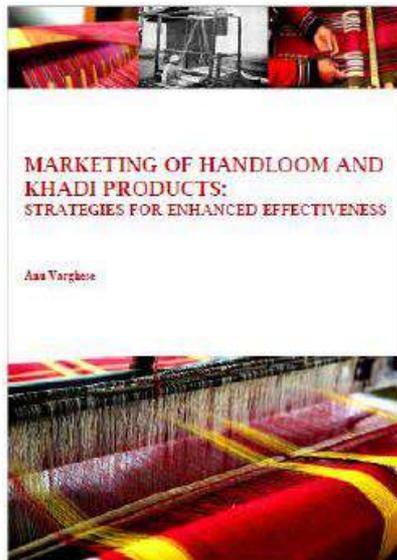
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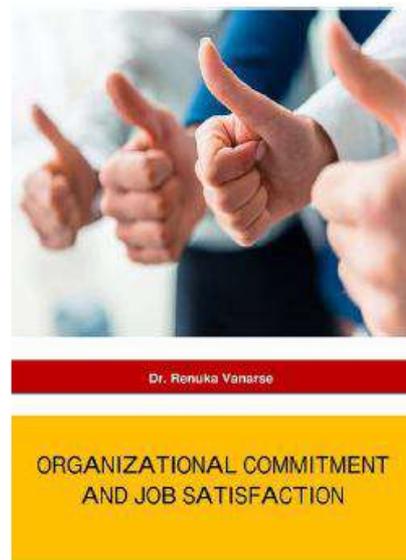
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