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International Journal of Advance and Innovative Research
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Research Papers

COMPARATIVE STUDY OF AIS AND 26AS AND ITS AWARENESS AMONG INDIAN CITIZEN

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ABSTRACT
As an Indian citizen taxpayer, it's a struggle to file an ITR every year. So to solve this problem the Income Tax Department has launched a new AIS form (Annual Information Statement) which will provide a comprehensive 46 financial transactions inculcated by the taxpayers during the financial year. To make this purpose successful the taxpayers must be aware of the AIS form and even the difference between the current 26AS and AIS so that they can use Information and file the return effectively. In this research the researcher will study the awareness level about 26AS and AIS form among the citizens and also state the difference between them. Secondary data will be used to discuss the differences between AIS and 26AS. Primary data will be used to check the awareness level among citizens, about form 26AS & AIS. Questionnaire method is adopted. Sample size of 100 respondents will be considered for analyzing and interpreting the data. Statistical tools like pie charts, graphs, tables etc will be used.

Keywords: AIS, 26AS, Indian Citizen, ITR, Taxpayers.

INTRODUCTION
Every Income Tax Assessee is required to complete and submit an Income Tax Return, often known as an ITR. Indian citizens are required to file their returns with the Income Tax Department of India pursuant to the Income Tax Act of 1961 and Income Tax Rules of 1962. Every year at the end of the financial year, this return must be filed. If you do not comprehend the consequences of the information you are putting out on the form, the procedure of submitting an income tax return (ITR) can become rather complicated. To make the filing of tax returns simple, the Income-Tax (I-T) Department offers pre-filled forms in addition to several forms like, 26AS, Form16, AIS, etc. that would contain the various income, TDS, financial transaction details, etc. However, taxpayers should maintain all the documents handy. The taxpayers should be aware of the assistance provided by the Income Tax Department and Double-check the data before filing the return because any mistake in filling data could result in a higher tax bill.

LITERATURE REVIEW

Ragupathi, Maniamuthu & Prabu, Dr. (2015): This paper discusses the value of e-filing services, tax regulations, the assessment process, and payment methods. The current study has been conducted using a descriptive research methodology. Through the use of questionnaires, samples from individual taxpayers and businessmen were gathered. The researcher gathered the data using the convenience sampling method. Between the respondents' age group and awareness level of e-filers, there is no discernible variation.

Kumar, S., & Gupta, S. (2017): This paper discusses an empirical investigation into how income tax payers feel about electronic filing. The study is based on primary data gathering using structured questionnaires completed by 262 tax payers who were deliberately and opportunistically selected by people, businesses, and HUF. The awareness, satisfaction level, and issues of the respondents were examined using descriptive statistics and factor analysis. The findings indicated that while E-filing has made it easier for income tax payers to use the system, there are still a number of issues they must deal with, such as peak demand and operational challenges.

Neog, Y., & Gaur, A. K. (2020): In this article the researcher study's the long- and short-term relationships between taxation and state-level growth in India from 1991 to 2016. The panel regression approach is utilised to verify the association between taxation and economic growth in this paper's analysis, which is based on the model of Acosta-Ormaechea and Yoo (2012). Using data from 14 Indian states, Panel Pool mean group estimation shows that capital and property transaction taxes have a sizable positive impact on state economic growth whereas income tax and commodity-service tax have negative effects. The results of this study reveal a "U"-shaped association between taxation and economic growth. Based on the data, we draw the conclusion that policymakers should place more emphasis on property in order for Indian states to grow more quickly.

Chakrabarty, A. (2021): This article contains information related to difference between AIS and 26AS form and also states the content available in both the forms. It provides guidance for the taxpayers about how information provided in the form can be used by them to file the return.

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Cleartax. (2022): This article contains various information related to AIS and explain in detail about Key characteristics of AIS, How to examine your AIS?, What kinds of information are displayed in AIS?, Difference between Form 26AS and AIS, process of providing feedback in AIS and what one should do if they are any errors in the form.

From the review, it is observed that there is much research done on the Income Tax Structure, E-filing and Income Tax contribution to the economic growth, but there is no research done on the various form like 26AS, AIS etc provided by the department which act as an assistance while file ITR.

Significance of the study
In this study, the researchers will analyse the difference between the current 26AS and AIS and study the awareness level about 26AS and AIS form among the citizens. This will help the taxpayers to know about the form 26AS and AIS and file their return hassle free This analysis can act as one of the measures for measuring the awareness level about the form.

THE OBJECTIVES OF THE STUDY

1. To discuss the difference between 26AS and AIS form
2. To study the awareness level of 26AS and AIS form

RESEARCH METHODOLOGY

Research Design
A well-structured questionnaire is used to gather information from numerous respondents at once in order to analyse the awareness level of 26AS and AIS form. Tables, graphs etc research design used to interpret the data.

Population
All the taxpayers who are the citizen of India.

Sample Size/ Sampling Technique
This method is descriptive statistics. The convenience sampling approach is used to collect the data, and Google Forms is used as the medium of data collection. Sample size of 100 respondents is considered for the study was.

Sources of Data Collection
Primary data will be gathered using well-structured questionnaires for this study, and secondary data will come from research articles, research papers, research theses written by research scholars, newspapers, books, etc.

DATA ANALYSIS

Annual Information Statement (AIS)
Financial transaction information for a financial year is contained in Annual Information Statement (AIS). The assesse can file the necessary ITR form with the aid of AIS. Additional information on interest, dividends, securities transactions, mutual fund transactions, foreign transfer information, etc. is included in the new AIS. The taxpayer will get access to AIS data in the PDF, JSON, and CSV formats.

Steps to view AIS form.
Step 1: Visit https://www.incometax.gov.in/ and log in.

Step 2: After successfully logging into the e-filing system, select "Annual Information Statement (AIS)" from the "Services" page.

Step 3: On the main page, select the AIS tab.

Step 4: To access the Annual Information Statement, select the appropriate FY and click on the AIS tile.

AIS form contains the following information

PART - A
Informational Summary: Name of the Taxpayer, Aadhar number, PAN, Date of Birth/Incorporation/Formation, address, mobile number, and are all displayed along with other general information.

PART-B

- **TDS/TCS Information**: Information included about the tax that has been withheld or collected at the source. The TDS/TCS data of Information code will be displayed along with Information description and Information value.

- **Statement of Financial Transactions (SFT):** information received from reporting entities is shown under this heading. It is possible to get the SFT code, Information description, and Information value.
- **Payment of Taxes**: Details of the data from the other sources are shown here, including information on Annexure II salary, interest on refunds, outgoing foreign remittances, purchases of foreign currency, etc.

Form 26AS
This statement contains information on the taxes that were paid, withheld, and deducted throughout the fiscal year. Information regarding the taxes withheld from and deposited against the PAN of an individual throughout a financial year is contained in the tax passbook of the individual, Form 26AS.

Steps to Download Form 26AS
Step 1: Visit https://www.incometax.gov.in

Step 2: Access the e-file menu. The Income Tax Return option

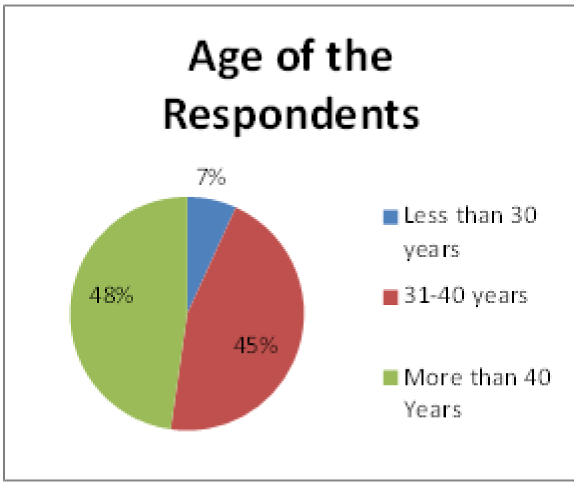
Step 3: Select "View Form 26AS"

Information included in 26AS
Information on advance tax, • Information on self-assessment tax, • Information on tax deducted at source and the deductors, • Information on tax refunds. Details of the Annual Information Report (AIR) and high-value transactions, as well as any other high-value transactions. Details of tax collected at source. Information related to tax deducted on the sale of property.

Difference between AIS and 26AS
The extension of Form 26AS is AIS. Details of real estate acquisitions, high-value investments, and TDS/TCS transactions made during the financial year are shown in Form 26AS. AIS contains GST turnover, dividends, interest on deposits, purchases and sales of stocks and real estate, international transfers, rent paid, income from savings accounts, etc. The taxpayer can give feedback on the reported transactions through AIS. TIS report the aggregated transactions at the level of the information source.

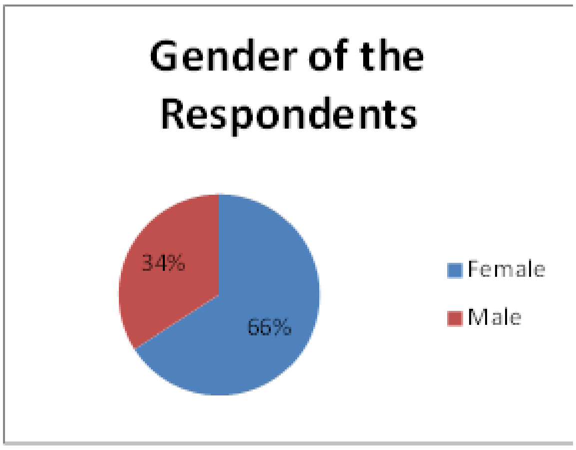
Analysis

Chart: 1



From the chart it is observed that 7% of respondents are less than 30 years of age. 45% of respondents are between 31-40 years of age and 48% of respondents are more than 40 years old.

Chart: 2

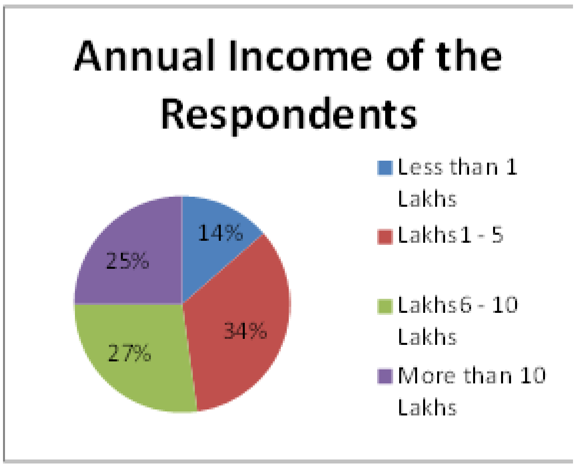


From the chart it is observed that 66% of respondents are Female and 34% of respondents Male

FINDINGS

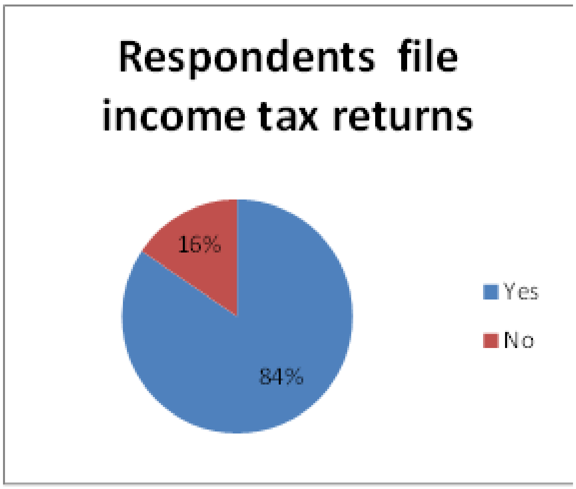
SCOPE OF FURTHER STUDY

Chart: 3



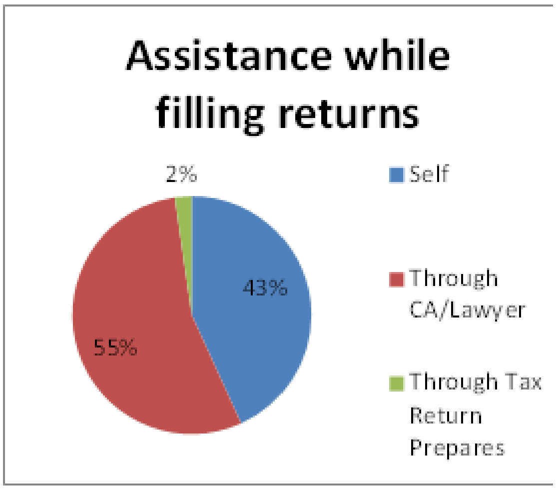
From the chart it is observed that 14% of respondents income is less than 1 Lakhs. 34% of respondents income is between 1-5 Lakhs. 27% of respondents Income are between 6-10 Lakhs and 25% of respondents income is above 10 Lakhs.

Chart: 4



From the chart it is observed that 84% of respondents **file income tax returns** and 16% of respondents do not **file income tax returns**

Chart: 5



From the chart it is observed that 43% of respondents self-file their returns. 55% of respondents consult CA/Lawyer. 2% of respondents consult tax return prepares.

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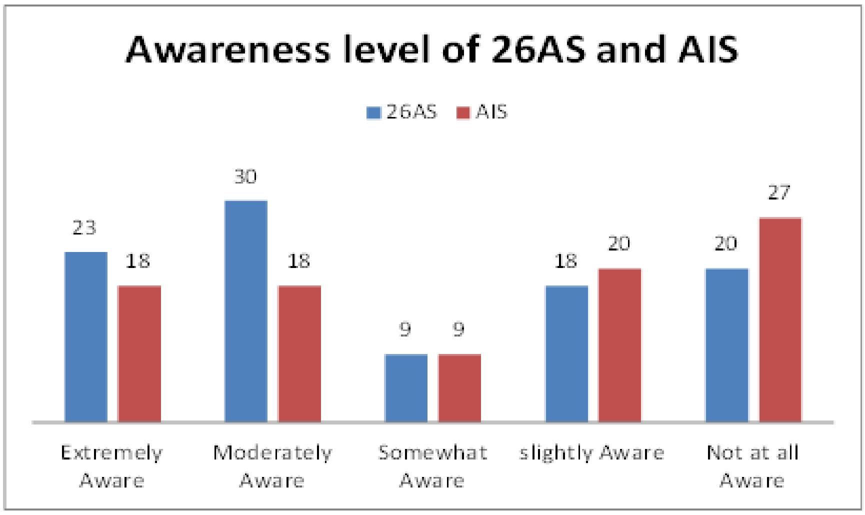
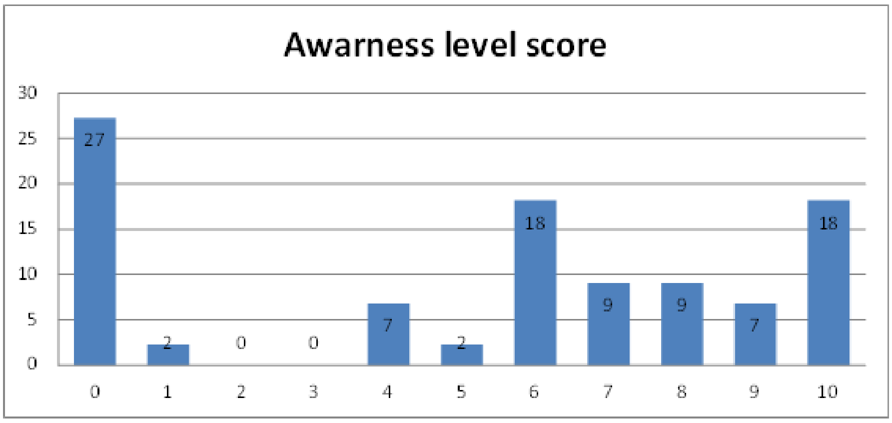
Chart: 6



From the chart it is observed 23 and 18 of the respondents are extremely aware of 26AS and AIS form respectively, 30 and 18 of the respondents are moderately aware of 26AS and AIS form respectively, 9 and 9 of the respondents are Somewhat aware of 26AS and AIS form respectively, 23 and 18 of the respondents are slightly aware of 26AS and AIS form respectively and 20 and 27 of the respondents are not at all aware of 26AS and AIS form respectively

Chart: 7



Awareness level test was conducted among the respondents and of which 27 respondents scored 0, 2 respondents scored 2, 7 respondents scored 4, 2 respondents scored 5, 18 respondents scored 6, 9 respondents scored 7, 9 respondents scored 8, 7 respondents scored 9 and 18 respondents scored 10. So an average score is 4.96 which is less than 5.

FINDINGS

- 48% of respondents are more than 40 years old
- 66% of respondents are Female
- 34% of respondents income is between 1-5 Lakhs.
- 84% of respondents file income tax returns
- 55% of respondents consult CA/Lawyer while filling returns
- 30 of the respondents are moderately aware of 26AS
- 27 of the respondents are not at all aware of AIS form

- The average score of awareness level among respondents is 4.96.

Limitations of the Study

- The sample size is restricted due to time and sample responsiveness restrictions.
- Nevertheless, the survey did yield useful information for the study.
- Due to the questionnaire's condensed nature, some factors could not be thoroughly examined.

SCOPE OF FURTHER STUDY

This research will act as a base for further details study about various forms.

CONCLUSION

The Income Tax Department is taking various initiatives to simplify the process of filing returns, by providing prefilled data, various transactions forms related to taxation etc. which will reduce the tediousness of filling return and urge individual to file return on their own. The Success of AIS application is possible only if the taxpayers are aware of the services provided by the tax department and how to interpret these services

Recommendation

The tax department should conduct awareness about the new incorporations undertaken by tax department by implementing the below aspects which may help to educate the taxpayers and serve the purpose of hassle free filling of income tax return.

1. Giving ads in business news channels.
2. Slot a session during the news hours about the new updates incorporated by the income tax department.
3. Conduct various digital free awareness programmes.

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IMPACT OF SOCIAL MEDIA MARKETING ON YOUNG ENTREPRENEURS' MINDS IN MUMBAI

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ABSTRACT

Traditionally, large businesses were able to reach their markets with large advertising budgets, small companies finding it difficult to compete with the fierce competition from these large companies. In today's business environment, social media has become a new marketing tool available to all businesses, quickly building relationships with potential customers. It was an interesting form of communication that simply took the world by storm and became an object that no business, small or large, local or global, could ignore. Today, there are more than 1.28 billion active users on Facebook alone, the world's most popular social networking site. Twitter, LinkedIn, Google+ and various other social networking sites have hundreds of millions of active users too. Social Media is important not only for regular Internet users, but also for business. That number could be a coupon or other details. Collaborating with a company on social media can lead to the feeling of connecting consumers with emotional, tangible benefits but the desire for intimacy is not something that drives most of them.

Technology is drastically changing how people live nowadays and has made a noticeable impact on the lifestyles of young minds. Social networking sites like Facebook, Instagram, Twitter, and others have ingrained themselves as essential components of young people's life. Since a few years ago, The primary goal of this research was to determine what kind of social media marketing messages have an impact on youth minds cognitive, affective, and behavioural attitudinal components. The study conducts research to comprehend the efficacy of social media as a marketing tool and makes an effort to examine the degree to which social media aids in making purchasing decisions in youth.

Data were collected through qualitative and quantitative methods. Secondary data were gathered in the form of a literature review and previously published research publications. In quantitative data collection method, the survey through questionnaire utilised a 4-point Likert scale and underwent the necessary internal validation. Total of 104 surveys were gathered to know youth perspective in context to social media marketing. The findings demonstrate that every business uses posts, shares, images, and videos to advertise their services on social media by informing users of new or existing services, offers, events.

According to the study, social media marketing messages can have a favourable impact on respondents' cognitive, emotive, and behavioural responses. Additionally, when social media marketing communications were accessible via a smartphone, the cognitive response was the most favourable, but the emotive and behavioural responses were preferred. In addition, although some individuals displayed higher levels of purchase and liking in terms of social media marketing communications, the gender demographic variable did not demonstrate a significant impact on attitude. According to the findings, social media promotion was the main strategy for luring youth with attractive pricing, regular equipment replacement, and facilities. Social media are for those where youth can vote on Facebook for new service ideas, are encouraged to remark on existing services, comment on any issues they have with services. This research conclusions is about the formal integration of social media into marketing strategy. There are presented managerial implications

Keywords: Marketing, Promotion, Retail Businesses, Social Media, Technology

INTRODUCTION

Social media was completely new four years ago, and most people did not know what social media was and how it would affect everything in our lives. It was an interesting form of communication that simply took the world by storm and became an object that no business, small or large, local or global, could ignore. Today, there are more than 1.28 billion active users on Facebook alone, the world's most popular social networking site. Twitter, LinkedIn, Google+ and various other social networking sites have hundreds of millions of active users too. Social Media is important not only for regular Internet users, but also for business. Social media refers to the means of communication between people in which they build, share, and / or exchange information and ideas in visible communities and networks. Traditionally, a small business would improve their relationships by going from house to house raising awareness and growing their brand. How quickly access to this depends on their budget and the time available to their business. Traditionally, large businesses were able to reach their markets with large advertising budgets, small companies finding it difficult to compete with the fierce competition from these large companies. In today's business environment, social media has become a new marketing tool available to all businesses, quickly building relationships with potential customers. Social media does not require large investments in terms of money or time. Social media is a tool that enables small businesses to reach large and potential audiences around the world in a very short time with minimal effort.

Social media refers to the means of communication between people in which they build, share, and / or exchange information and ideas in visible communities and networks. Traditionally, a small business would improve their relationships by going from house to house raising awareness and growing their brand. How quickly access to this depends on their budget and the time available to their business. Consumers are willing to work with businesses to use social media for their own benefit, and also to determine whether social media is the right way to get what they want and can help build trust in the company.

In our culture, technology has an important function to play. Therefore, it is difficult to characterise evolution, particularly when it comes to digital evolution. social media usage has significantly increased. The social media revolution has occurred since the birth of the internet, which is a potent weapon. Every day, new ways to communicate and access content emerge, and the younger age group is the one that adopts these new technologies the fastest. Digital marketing emerged as a result of the global expansion of the internet and technological advancements that occurred. Social media is transforming the information era into the social network era, and it is the means through which individuals and businesses communicate with one another. Companies now have the option to use a variety of marketing tactics. Businesses have a bigger platform to connect with consumers in a creative way and significant global possibilities. Companies may simply get information about their intended clients and reach out to them whenever they want (24X7).Social media platforms like Facebook, Twitter, YouTube, and others are dynamic tools that help businesses and their target customers connect online. It evolved with the introduction of numerous search engines like Google, Yahoo, etc., as well as social networking sites like Orkut, Facebook, and eventually twitter in 2009. Currently, among professionals, Linkedin is the most well-known. Some well-known examples of digital marketing include mobile marketing, content marketing, social media marketing, etc. In India, the growth of digital marketing is outpacing that of other industries.

Businesses that learn to use new technologies can benefit greatly as new technologies become available. Technology-driven businesses like Microsoft, eBay, Amazon, and Google are some of the most well-known examples. Social media has quickly grown to become one of today's most popular platforms among young people in India. The hottest new marketing idea is social media marketing, and every business owner wants to discover how social media may benefit their organisation. Due to their social nature, people like to gather or exchange knowledge that is significant to them. The growing reliance on technology for everyday communication emphasises the significance of investigating how these social networking sites are impacting routine activities. Anyone can sign up for a social networking site, including children and teenagers, men and women, wealthy users, and older people. Once enrolled, the user can start interacting with others and building their own network of people that share similar objectives or interests. Websites like Facebook, Twitter, and LinkedIn are changing how users form, nurture, and keep a variety of social connections, from personal friendships to passing acquaintances. The modern consumer wants more product information before making a purchase. Most importantly, since many users now trust their fellow users' opinions above marketing strategists, social networks are very effective at educating and influencing purchasing decisions. Customers now have the ability to respond to brands and voice their opinions publicly. Because of this, marketers must approach them differently and with more respect.

Therefore, social media may be thought of as a wide phrase that encompasses activities where individuals generate material, share it, bookmark it, and network at an incredible rate. Social networking sites, on the other hand, are a place where people may create communities of interest to connect with others. Social networking sites make use of social media to connect users and foster relationships. Social networking sites enable users to create their profiles within a system that is constrained, share them with other users, and browse and navigate their list of connections as well as those that others have built within the system (Boyd & Ellison, 2007)A person's attitude affects their perspective on a situation, which is followed by their behaviour. With the development of the internet, consumer attitudes about online marketing have significantly changed. The bulk of the young population spends a lot of time online every day, making it the best medium for marketers to connect with the general public. They are finding that social media is the most practical platform to advertise their goods, as a result of which they will attract new customers or purchasers. This research seeks to demonstrate how young consumers perceive social media marketing in relation to their attitudes. As a result, attitude toward marketing can also be defined as the propensity to react negatively or positively to a specific commercial or sales message. social media is progressively taking over as the centre for advertising. This essay also investigates whether or not young consumers react to advertising messages posted on social media.

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REVIEW OF LITERATURE

[1]Sudeepti, [2]Dr. Rajesh Singh (2019), This Research, which was undertaken for academic purposes, showed how internet-based life advertising communication affected young Indian consumers in terms of their embraced chain of command reaction attitude stages. According to researcher Every young person's mental state was found to be positively impacted by social media marketing communication, however on a sliding scale that considers buying a pipe. The most important findings of the study demonstrated that young people who regularly used cell phones to access the internet reacted positively to advertising interchanges across the majority of frame of mind categories. Additionally, more female teenagers were likely to exhibit the most positive attitudes on correspondence promoting online life.

Dr. T. Unnamalai (2019), The majority of businesses are interested in using social media as a platform in the dynamic environment, and they do well. According to the study, young people between the ages of 30 and 35 have access to social media and plan to make purchases. The strongest form of advertising for networks is word of mouth, and interest in social media is generated by friends and family. Only some businesses have their customers' purchase decisions influenced by the media, therefore other businesses should make their strategies more appealing and work to bring back customers' memories. A market survey might be used. Companies should conduct market research and tailor their strategies to the demands of their intended audience. In order to create enduring memories of their products, businesses may therefore draw the conclusion from the study that they need to rethink their tactics and provide more to their target audience. They will be able to draw in bigger audiences, and those audiences will become their customers. It is simple for businesses to convert their valuable customers into paying customers.

Nya Gibson (2018), The findings from survey responses from a sample population demonstrate that companies with a social media presence have the ability to significantly impact corporate revenue. While some users may not actively engage in all of the commercial propagandas that are made available to them via social media, a significant portion of users are aware of their efforts and seize the possibilities that are advantageous to them.

Social media marketing is something that businesses should do for a variety of reasons. Online visibility, brand awareness, business-to-business communication, priceless feedback, and the chance to see what clients, prospects, colleagues, and rivals are saying could be a few of the factors. The results of this study showed that social media not only enables direct client engagement but also rewards firms with repeat business. It is clear that social media may assist firms keep up their contacts with potential clients and direct them toward successful endeavours. The majority of customers search social media for the goods or services a company provides. On average, people spend three or more hours every day on social media. For consumer loyalty and purchasing decisions, social media marketing is crucial. Although a company may function without social media in the modern world, having a social media presence has been shown to greatly increase customer loyalty, purchasing behaviour, and income.

Rodney Graeme Duffett (2017), This study found that social media marketing communications significantly impacted each attitude component, however the mean value decreased with each stage. These results confirm that SNA led to similar sentiments among young consumers and that they are consistent with the sales funnel principles that were developed through conventional advertising. Teenagers in South Africa showed significant differences in the attitude components depending on a variety of usage and demographic factors. The most notable aspects of these findings revealed that teenagers who regularly updated their social media profiles and used mobile devices for extended periods of time (more than 2 hours) reacted favourably to marketing messages on these interactive ICT channels across the majority of attitude components. Also more likely to have the most positive sentiments toward social media marketing communications were older female PDI teenagers. By offering a significant addition to social media research from both a global and African perspective, this study has helped to close the academic-practitioner divide regarding the cohort and attitude-to-advertising (Aad) theories. It should act as a springboard and spur for further research.

Kaushik (2009), "social media is like teen sex." Everyone desires to take action. Nobody has a clue. It surprises everyone when it's finished that it's not better. The same thoughts hold true for social media marketing communications, where a substantial amount of research is still required to properly comprehend the consequences of these interactive ICT channels' effects on young consumers.

OBJECTIVES OF THE STUDY

1. To understand the Social Media in the field of Marketing
2. To study the Young Minds' perception about usage of social media in case of retail businesses in Mumbai

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3. To study the impact of Social Media Marketing on the Young Minds special reference to retail businesses in Mumbai

HYPOTHESES OF THE STUDY

$H_{0:}$ There is no significant impact of Social Media Marketing on the Young Minds special reference to retail businesses

$H_{1:}$ There is significant impact of Social Media Marketing on the Young Minds special reference to retail businesses

SCOPE OF THE STUDY

This research study provides the direction about, how retail businesses can leverage social media to penetrate their markets, reach their customers and develop relationships in a personal and direct manner that can catapult their brand and raise their awareness as successfully at par with any large business. The study also throws light on the influence of social media on consumer's buying decisions and behaviour.

RESEARCH METHODOLOGY OF THE STUDY

The study is based on critical evaluation and analysis of basically Primary Data. The primary sources include young retail entrepreneurs. A study is undertaken in the sampled regions to see its impact for which a detailed questionnaire is prepared to collect relevant information from the primary source for the guidance of the researchers. With the help of the questionnaire, detailed discussions were made with the certain sources of primary data to understand their views, thinking and attitude which would help to give the researchers useful recommendations, if any. The questionnaire is processed with the help of statistical tools like tabulations, grouping, percentages, averages, testing of hypothesis etc.

As far as Social Media is concerned, following of them are taken into consideration viz, Facebook, Whatsapp, Instagram, Telegram, Google Plus etc whereas in case of young retail businesses, they were taken under the consideration as per their annual turnover.

RESEARCH AREA

Researchers selected young retail entrepreneurs from Mumbai. Sample sizes of 150 young retail entrepreneurs have been taken under study. Researcher collects data through Primary and Secondary sources. Researcher distributed 150 questionnaires among the respondents.

DATA ANALYSIS

Researcher prepared the questionnaire for respondents and distributed it among them. After receiving the questionnaire researcher analyse the questionnaire.

Table No1: Information of questionnaire

Sr.No	Respondent	Questionnaire distributed	Questionnaire received	Questionnaire rejected (due to incomplete, wrongly filled etc)	Net Sample size for study
1	Young Retail Entrepreneur	150	139	6	133

Testing of Hypothesis

$H_{0:}$ There is no significant impact of Social Media Marketing on the Young Minds special reference to retail businesses

H_1: There is significant impact of Social Media Marketing on the Young Minds special reference to retail businesses

Mathematically

OBSERVED FREQUENCIES		RETAIL BUSINESSES (Annual Turnover)					
		Upto 1 Lakh	1-2 Lakh	2-3 Lakh	3-4 Lakh	Above 4 Lakh	TOTAL
SO CI AL M	Facebook	18	2	5	4	3	**32**
	Whatsapp	12	5	2	5	2	**26**
	Instagram	5	12	2	8	1	**28**
	Telegram	3	11	5	5	3	**27**

EDIA	Google Plus	6	3	2	4	5	**20**
	TOTAL	**44**	**33**	**16**	**26**	**14**	**133**

Sr No	H_0	H_1	χ_cal	χ_table	p_value	Decision
1	**There is no significant impact of Social Media Marketing on the Young Minds special reference to retail businesses**	**There is significant impact of Social Media Marketing on the Young Minds special reference to retail businesses**	34.31	26.30	7.8905E-05	**Reject H_0 (i.e.There is significant impact of Social Media Marketing on the Young Minds special reference to retail businesses)**

***Here level of significance is 0.05**

Thus, our null hypothesis There is no significant impact of Social Media Marketing on the Young Minds special reference to retail businesses is rejected. Alternatively, we accept our alternative hypothesis There is significant impact of Social Media Marketing on the Young Minds special reference to retail businesses

FINDINGS

1. The most vital factor about Social Media Marketing were its reliability and transparency in financial costs
2. The one more important issue is come out from this analysis in which young retail entrepreneurs are feeling the Social Media Marketing having very great potential as compared to other ways of marketing.

LIMITATIONS OF THE STUDY

1. The study is based on limited geographical area.
2. Further variables could be added for the purposes of detail study.
3. The researchers have very less time to collect the data.
4. The researchers have restricted its area of research only to Western Mumbai.
5. This research produced not look at brand-specific advertising, but looked at social media marketing communications generally, which could possibly open up a path for further investigation.

CONCLUSION

From the above analysis, we can conclude that, Social Media Marketing having very positive impact on the retail businesses.

Social media marketing has had a massive influence on today's generation. Based on this research, we can see how social media marketing has influenced and inspire youngster to purchase product or service and social media marketing plays as important role to motivate today’s young generation. as the way social media marketing is promoted and handled now.At the same time as per the survey young generation prefer both online and offline shopping but they avail product occasionally throu social media. As per the research young generation are more active on social media site and they are atleast active in two social media platform on a regular basis. Today’s generation are having social media accounts like Insta, Facebook, Twitter, Linkdin, Google+, whtsapp, reditt and many more but as per findings young generation are more active on Insta pages and also as per the survey they visit on social media site daily basis and spend appx. 1 to 2 hours daily in this platform.It is also observed through survey that young minds are motivate and influences with social media platform and they are getting more information about the product through social media.

As per the research Young generation make the purchase decision through social media occasionally as these social networking sites providing enough information to motivate young generation to buy product/services.

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IMPACT OF CARBON FOOTPRINT ON SUSTAINABLE DEVELOPMENT IN INDIAN ECONOMY

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ABSTRACT
Energy plays a very important role in the development of any economy. Energy demand from various sectors of the economy has witnessed tremendous growth. The carbon footprint represents the total volume of greenhouse gases resulting from everyday economic and human activity. Measuring emissions of CO_2 is essential for planning measures and taking initiatives to reduce them. It all starts with the activities of an individual on daily basis. This paper attempts to analyze the impact of digitalization on sustainable development and various ways for transformation to build a prosperous and sustainable future. Coronavirus pandemic measures have seen businesses and governments adapting their operations and services online. Digital platforms are also flourishing as users trying to find out entertainment, shopping, and learning innovative ways of connecting during this crisis.

Keyword: carbon footprint, sustainability, digitization, business development

I. INTRODUCTION
Every streamed song or video, searched data or any digital work happening every second in India adds up to the ever-increasing global demand for electricity and rising CO_2 emissions too. Digitization also plays a vital role in the transformation of renewable energies and in the future of our cities. Tech companies are playing an important role in the Indian economy and they have a significant role in India's sustainability devolution. India is at the center of this transformation. It is a rapidly growing economy and plays a key role in global supply chains. It is very clear that our digital India dream has a huge energy appetite which will surely cause heavy contribution to carbon footprint.

II. CARBON FOOTPRINT
As the use of audio and video conferencing tools increases considerably, all the organizations will upgrade up their technology infrastructure to justify the digital flow. This will lead to raise investment in network equipment, bandwidth expansion, software supporting cloud based services. Digital transformation technologies such as Internet of Things (IOT), Block chain, Machine Learning, Cloud, Artificial Intelligence comprise a majority of what is being adopted by organizations as part of their transformation effect. Information technology and specifically the internet, will remain essential player to the post pandemic scenario where modernizations will drive the surge in use.

III. DIGITAL ACCELERATION
If there were any doubts about need of digital transformations to business durability, the coronavirus has stopped them. In a contactless world, majority of interactions with employees and customers must take place virtually. It's like either go digital or go dark. Digital mandate is not new but its brought into focus. Prior to this pandemic situations shift towards services and digitization of the economy was already proceeding. Current scenarios have accelerated this pattern as proved by the market shift moving towards digital businesses and this is just the beginning. Adapting digital in and of itself is not a solution to all that affects businesses in the current economic environment. Organizations that stand on their existing digitals achievements can be beaten by those that invest in adaptation of their digital capabilities for the post pandemic future – a future which looks very distinct, informative and interesting from the pre-pandemic world.

III. METHODOLOGY
The data set is prepared from https://www.dgca.gov.in/ It has many parameters but we have used two main parameters year and CO_2 emission due to digitization.

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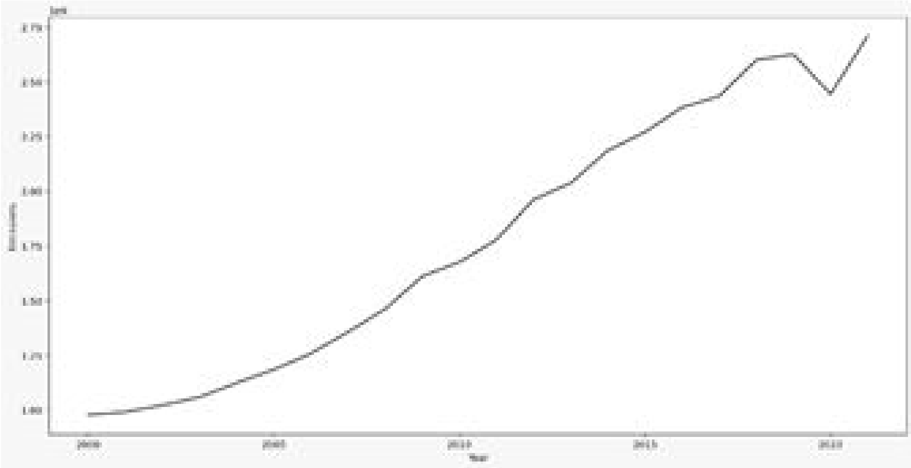
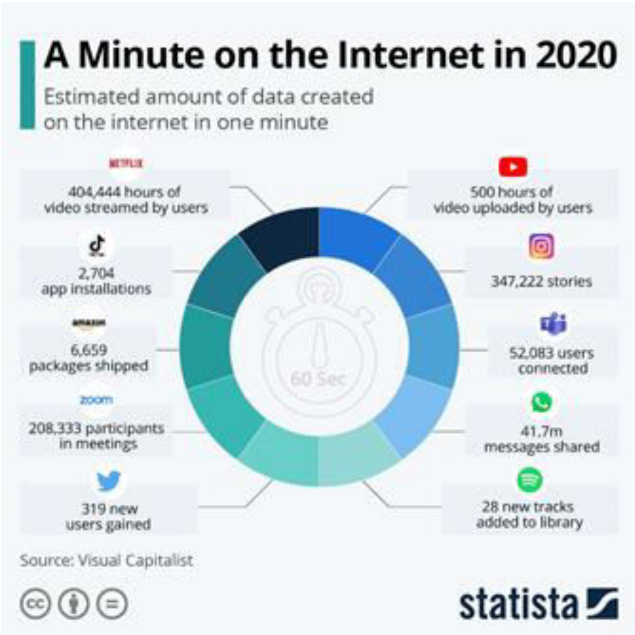


III. DATA ANALYSIS

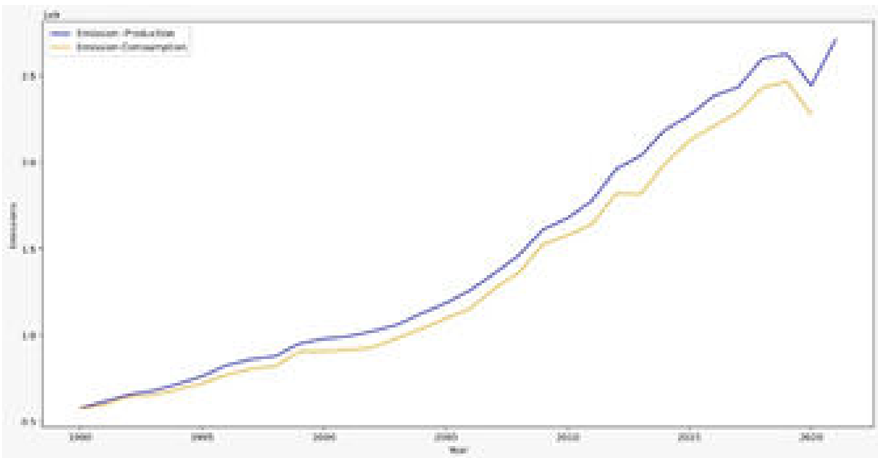
The year wise CO_2 emission in India is represented using matplotlib. The graph clearly shows CO2 emission is increasing in last 10 years. One of the major reasons behind it is digitization.



IV. ENABLING INNOVATION IN SUSTAINABILITY TO PROTECT INDIA'S NATURAL RESOURCES

Energy consumed by devices when kept in standby mode accounts for minimum 5% of less energy use. Even unplugging the electronic devices when they are not in use finds solution for decrease in carbon foorprints. Manufacturers should also audit their products for CO_2 emission.

Using matplotlib, we can see that CO_2 emission has increased drastically after digitization.



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V. CONCLUSION

It is very difficult to find out digitalization has a positive or negative impact on carbon footprint. Digitization helps in enabling sustainable development by sharing resources online, production of resource efficient process and acceleration to switch for renewable energies. Digitization can also promote environmental friendly energy consumption and lifestyle for sustainability or simplicity. Digitalization is energy hungry and resource consuming. It originates carbon footprint which we might not see and we should never ignore it. We can achieve sustainable digitalization only if learn to use digital services in right places. For a sustainable digital future, nowadays manufacturers builds ethical digital tools and technology which respects society and environment and helps consumers in picking up right choices.With some right approach towards digital transformation and digital interference, businesses can come out of some stronger battle, more customer-centric, more agile than before.

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APPLICATION OF HERZBERG'S TWO FACTOR THEORY IN ASSESSING VARIOUS ASPECTS OF EMPLOYEE MOTIVATION

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ABSTRACT
Employee motivation determines the level of involvement and commitment that employees display at workplace. Employee motivation is critical for the success of any business. A motivated employee means a highly productive workforce, all of which will assist any business in meeting its objectives. The first step in developing a motivational strategy is for a company to understand what motivates its employees. While focusing on a list of key motivating programs, the company should note that the list might not motivate every employee. This can be accomplished by using simple techniques such as creating a positive work environment and encouraging employees to express their ideas openly. A company can motivate its employees through monetary and non-monetary methods.

Fredrick Herzberg in his 'Two Factor Theory of Motivation' talks about Motivators and Hygiene Factors also known as Job Satisfiers and Job Dissatisfiers. The various aspects highlighted by Herzberg throw light on the complexity of concept of Motivation at workplace. The theory brings out a strong cause and effect relationship between motivation and job satisfaction.

This study is carried out at Priyadarshini Filaments Pvt. Ltd., a textile manufacturing organization located in Bengaluru. In this study all the factors of Herzberg's Motivation – Hygiene theory were used to gain a deeper understanding of the employee existing motivation levels. Questionnaire and Interview method was used to collect information from the employees engaged in the manufacturing activity. The study reported various findings such as compensation, personal and professional growth, rewards, and recognition as the most influential motivation factors for employees.

Keywords: Employee, Motivation, Herzberg's Theory, Satisfiers, Dissatisfiers, Textile Industry

1. INTRODUCTION
Business and organizations have been seeking answers to the biggest and most challenging question that transpires around employee motivation. Employment and management of Human Capital has been the nucleus of an organization's growth and sustainability. The importance of motivation and job satisfaction is crucial for the achievement of organizational goals and objectives. Motivated employees will achieve both the organization's goals and their personal goals. The businesses would be in a perilous situation without a motivated workforce. Employers must make a concerted effort to find ways to encourage each employee based on their unique goals and needs because every employee has a particular trigger that will inspire them. The challenge for management is to ensure that employees are not only motivated, but that their motivation sustains for longer duration.

According to Fredrick Herzberg, there are two sets of factors that influence employee motivation. The first set of factors, which are termed as Motivators can be used to increase job satisfaction levels in employees. The second set of factors which are called Hygiene or Maintenance factors can be used to avoid job dissatisfaction. These factors could also be referred to as Extrinsic and Intrinsic Factors. To motivate employees, it is important for the organization to understand the factors that bring job satisfaction among employees. Herzberg's Theory establishes a linkage between Job Satisfaction and Employee Motivation. The application of this theory helps in understanding the factors that affect employee motivation and how these factors can be manipulated to increase satisfaction and motivation levels.

2. THEORETICAL FRAMEWORK
Motivation is one of the most used words in human resource management. The term "Motivation" refers to a stimulation or incentive to perform an action. Employee motivation refers to the passion, vigor, dedication, and degree of originality that an employee consistently brings to the workplace. They are many theories of employee motivation that revolve around the attainment of job satisfaction. The theories are divided into three categories. The first is Content theories which comprise of Maslow's Hierarchy of Needs Theory, Herzberg's Two factor Theory, Alderfer's ERG Theory and McClelland's Need Achievement Theory. The second category of theories are called Process Theories which include Porter – Lawler Model and Vroom's Expectancy Theory. The third

category is termed as Contemporary Theories which has Goal Setting Theory, Job Design Theory and Equity Theory. All the theories are interlinked and dwell around the objective of job satisfaction.

2.1 ***Herzberg's Theory of Motivation:*** Fredrick Herzberg, renowned psychologist, attempted to understand how businesses could assist their employees in becoming more motivated at work. The Motivation – Hygiene Theory propounded by Fredrick Herzberg was the result of series of discussions and interviews held with Engineers and Accountants and resulted in identification of two aspects. The first was the reasons employees felt good about their job, the second was the reasons that made them feel bad at work. In total Herzberg and his team identified fourteen factors that result in job satisfaction of employees at work. He categorized these factors into two categories, Motivators or Job Satisfiers and Hygiene Factors or Job Dissatisfiers.

A. Motivating Factors – According to Herzberg motivating factors are required to increase job satisfaction. These motivational factors are inherent in the work and increase job satisfaction by meeting the demands for development and self-actualization. These factors are intrinsic to the job that an employee is engaged in. The various elements that can improve satisfaction level of employees are as follows:

- ***Advancement:*** Herzberg's refers to advancement as the positive and upward movement of employees in the organization. An employee who is provided with adequate career advancement opportunities will have higher levels of job satisfaction.
- ***The Work Itself:*** In most cases, the nature of work that employees do is itself a motivator in many ways. Job allocation must be in sync with employee's interest and competency. The difficulty level of job and level of engagement required affects satisfaction levels.
- ***Responsibility:*** Delegation of authority and responsibility is a big source of motivation to employees. Delegation must be in accordance with the competency and willingness to take up responsibility. Authority and responsibility must be directly proportional.
- ***Achievement:*** When an employee successfully completes the task that is assigned to him / her, it brings a sense of achievement. This improves the satisfaction level towards the job and improves motivation levels. Success in a current assignment boosts the motivation to carry out future assignments.
- ***Growth Opportunities:*** There must be opportunities for employees to excel and grow in their respective areas of work. This enhances their competency levels and improves the commitment of employees towards their organization.
- ***Recognition:*** Employees need to be appreciated and recognized for their dedication and effort by their superiors and managers. This boosts their confidence levels and improves motivation.

B. Hygiene Factors – Hygiene factors are essential for existence of motivation at workplace. According to Herzberg, the presence of these factors does not improve satisfaction levels, however their absence results in job dissatisfaction and as a result causes demotivation. These factors are also known as maintenance Factors. Hygiene factors are extrinsic to job and serve to "prevent unpleasantness". The various elements that can lower the Job dissatisfaction level of employees are as follows:

- ***Company Policies:*** Every organization has some practices and systems in place to manage people and processes. Clarity, fairness and transparency in company rules and guidelines is essential for smooth functioning of an organization. Unfair and biased policies cause dissatisfaction among employees.
- ***Quality of Leadership:*** The type of leadership followed in an organization affects the work environment. Ineffective supervision style, low level of delegation and autocratic decision-making style can be a major factor that causes employee dissatisfaction.
- ***Relationships with Peers:*** The interpersonal relationship between colleagues, superior and subordinate must be cordial and pleasant. Any conflicts at workplace can be a reason for low satisfaction among employees.
- ***Working Conditions:*** Employees spend majority of their time at workplace, hence hygienic and safe working conditions is essential for them to carry out their tasks well. Unsafe, dirty and unhealthy workspace can cause low levels of satisfaction among employees.
- ***Status:*** The way employees are treated within the organization is a major determinant of how they feel about their employer. Employees must be treated with dignity and respect and any element of favoritism and bias must be avoided.
- ***Job Security:*** Employees need to feel secure about their continuity of employment for them to perform their

functions effectively. Frequent transfers, demotions or layoff could dent the confidence of employees and their commitment towards the organization.

- ***Salary:*** Herzberg has identified salary as a component that could be a motivator in some cases, however it could also be a hygiene factor for people who do not give much importance to financial incentives.

2.2*Applicability of the Theory:* The theory highlights the factors that help in improving job satisfaction levels and the factors that help in bringing down job dissatisfaction levels. Employers must ensure that on one hand the Hygiene Factors are taken care off, which will help in reducing and avoiding job dissatisfaction among employees. On the other hand, recognition and reward mechanism must be in place to improve job satisfaction levels and improve employee motivation. Job Enrichment is suggested as one of the techniques of improving motivation levels. Based on the two factors suggested by Herzberg, there could be four situations that have to be dealt with.

- ***High Hygiene & High Motivation:*** This is an ideal situation. In this the employees are happy with both the intrinsic as well as the extrinsic factors of the job. Hence their satisfaction levels are high.
- ***High Hygiene & Low Motivation:*** In this case the employees are not unhappy with the extrinsic factors but do not have motivators to work for. Here the satisfaction level of employees is medium or moderate.
- ***Low Hygiene & High Motivation:*** This is a situation where the intrinsic factors are stronger than extrinsic factors. The employees in this case are motivated by the work they do; however, they are not very happy with the hygiene factors provided to them. Here the satisfaction level of employees will be average to low.
- ***Low Hygiene & Low Motivation:*** This is referred to as the worst-case scenario. Here neither the employees are happy about the hygiene factors, nor are they provided with any motivators. Hence their satisfaction levels will be very low.

Though the applicability of Herzberg’s theory has been recognized yet there are few critics who view this theory as a theory of Job Satisfaction rather than a Motivation theory. According to (Charlotte, 2021) this theory was based on a study involving 200 respondents with the use of Critical Incident Method, this is not authentic as the respondents could possess an element of bias. Yet another aspect of debate is that Herzberg’s theory belongs to an era where the organization structures were rigid and functioned in an autocratic style. But present-day organizations are more flexible and dynamic in nature, hence the applicability of the factors could not be so accurate. Despite such criticism, Herzberg’s Two Factor Theory still holds ground in understanding and improving Motivation at workplace.

3. LITERATURE REVIEW

Fredrick Herzberg’s Two Factor Theory has been a part of many research projects undertaken across the world. Many researchers have worked on the applicability of the Two factor model on employee motivation. Following are the studies conducted on applicability of Herzberg’s theory in assessing employee motivation levels.

(Kwasi & George, 2011) in their study speak about the relevance of numerous theories that have influenced organizations in managing motivation level of their workforce. Fredrick Herzberg’s Two Factor Theory explains the reasons that motivates employees and the reasons which brings dissatisfaction among employees in Ghana. The researchers conclude that in Ghana, it would be more prudent for managers to strike a balance between the motivator factors and hygiene factors with more emphasis on the hygiene factors since it appears to motivate the Ghanaian worker better.

In yet another study conducted on employees in Rafhan Maize Industry in Sindh, Pakistan by (Sumra, Haseeb, & Sumair, 2019) have applied the Motivation – Hygiene Theory of Herzberg to assess and improve performance of employees. The study suggests that on one hand Motivators (Advancement, Achievement, Recognition, Growth and Work Itself) on the other hand Hygiene Factors (Company Policy, Supervision, Job Security, Working Conditions, Work Relationships) affect employee motivation levels and both should be employed effectively.

A similar study was conducted on employees working in clinical laboratories in Omani Hospitals by (Samira, Salem, & Nasir, 2020) to understand the link between job satisfaction levels and employee motivation. Researchers conducted Focus Group Discussions across hospitals in Oman to study the factors that improved jobs satisfaction levels and impacted motivation. The research suggested that job dissatisfaction among employees was due to the absence of hygiene factors such as relationship with co-workers, relationship with supervisors and job security.

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Herzberg's Theory of Motivation has been used as a predictor of Job Satisfaction in the study conducted by (Greta & Mejai, 2018) on Non-academic college community employees in Iowa, US. The study identifies 'Work Itself' as one of the biggest motivating factors for employees engaged in academic institutions. The type of supervision / leadership emerged as the prime reason for employee dissatisfaction. The study concludes that satisfaction level of employees is impacted both by motivators as well as absence of hygiene factors. Hygiene Factors if not taken care off, could result in high job satisfaction.

The study by (Joseph, 2015) highlights the factors that affects motivation of construction workers and its impact on performance and productivity of workers. The study concluded that teamwork, work based on contract, leadership style, availability of equipment were the critical factors that impacted productivity of workers. Apart from this good internal communication, interpersonal relationships, opportunities to take up challenging tasks and payment of overtime wages also were the factors that affected motivation level of employees.

Recent research indicates that employee satisfaction does not necessarily contribute directly to productivity. Satisfaction may be viewed as a passive attribute, while more proactive measures such as motivation levels are viewed as more closely linked to behavioral change and performance.

4. RESEARCH OBJECTIVES

The research paper is prepared with the following objectives:

- ✓ To understand the various aspects and applicability of Fredrick Herzberg's 'Two Factor Theory' of Employee Motivation.
- ✓ To analyze the factors influencing the motivation level of employees using 'Two Factor Theory'.
- ✓ To suggest strategies to improve employee motivation levels at workplace.

5. SCOPE OF THE STUDY

The company selected for the study is Priyadarshini Filaments Private Limited, a textile unit located in Bengaluru, Karnataka. Priyadarshini Filaments Pvt. Ltd. started operations in 1972 and is engaged in manufacturing of Monofilament woven fabrics which is extensively used in Agriculture, Floriculture, Aquaculture and Consumer Textiles. The study has been conducted on 60 employees working at Machohalli and Rajajinagar manufacturing units of Priyadarshini Filaments Pvt. Ltd. The study was conducted during the month of September – October 2022. Employees working in various departments of production in the textile units were chosen for the study. The main aim of the study was to assess the various aspects of employee motivation using Fredrick Herzberg's Two Factor Theory.

6. RESEARCH METHODOLOGY

The Research Design is Descriptive in nature and aims to arrive at a deeper understanding of the various aspects influencing the motivation of employees. The study involves workers engaged in production process of monofilament woven fabrics at Priyadarshini Filaments Pvt. Ltd. Convenience Sampling Technique was used for choosing of respondents, employees working in night shifts were excluded from study for the convenience of the researcher. Questionnaires were translated into local language (Kannada) and responses were recorded in Google Forms. Respondents were also interviewed on a one-to-one level to understand their feelings and perception towards their job and the organization. The data was tabulated and analyzed to arrive at research outcome. A limitation of the study was that the respondents belonged to low socio-economic background and were not academically sound. Hence, they were hesitant and apprehensive in answering the question in a fair manner. This has resulted in respondent's bias. Translating the questions in local language posed to be a challenge for the interviewer.

7. RESULTS AND DISCUSSION

The Sixty Respondents were presented with a series of questions concerning various aspects of their work life. The questions were designed to seek their opinion on the factors that made them happy at workplace called as Satisfiers and the factors that caused problem and the respondents were not happy about are called as Dissatisfiers. The questions were translated in local language (Kannada) for easy understanding of the respondent and tabulated answers are presented below: Table 1 below throws light on the Demographic profile of the respondents.

Table 1: Demographic & Work Profile of Respondents

Sl. No	Aspects	No. of Respondents	Percentage
1	**Age**		
a	18 – 28 Years	09	15.%
b	29 – 38 Years	08	13.3%
c	39 – 48 Years	22	36.7%
d	49 & above	21	35.%
2	**Gender**		
a	Male	47	78.3%
b	Female	13	21.7%
3	**Monthly Income**		
a	Rs 10,000 to 20,000	50	83.3%
b	Rs 20,000 to 30,000	10	16.7%
c	Rs 30,000 to 40,000	Nil	0%
d	Above Rs 40,000	Nil	0%
4	**Functional Area**		
a	Inspection	15	25%
b	Warping Dept.	10	16.7%
c	Reeling Dept.	09	15%
d	Weaving Dept.	09	15%
e	Extruder Dept.	08	13.3%
f	Bobbin Winding	06	10%
g	Bales	03	5%
5	**Work Experience at Priyadarshini**		
a	Below 5 Years	14	23.3%
b	6 – 15 Years	23	38.3%
c	16 – 25 Years	08	13.3%
d	26 – 35 Years	11	18.3%
e	Above 35 Years	04	6.8%

Source: Primary data

The Table 1 above presents the demographic composition of the employees involved in the study. The sample has a dominant male population as it is a production-oriented process. Only 21% of the respondents are women. Almost 71% of the target respondents are above the age of 38 years and only 15% are below 28 years. Most of the employees chosen for study draw a monthly income of less than INR 20,000. When it comes to years of service put in at Priyadarshini Filaments Pvt. Ltd., 36% of employees have been with the organization for over 25 years. This reflects on high loyalty and commitment level of employees.

Table 2: Respondents Opinion on Motivators / Job Satisfiers

Sl.No.	Motivators	Extremely Good	Good	Moderate	Poor	Extremely Poor
1.	Growth Opportunities	3%	35%	55%	7%	Nil
2.	Recognition of work performance	7%	25%	65%	3%	Nil
3.	Freedom to take decisions	8%	6%	7%	37%	42%
4.	Delegation of responsibility	43%	23%	24%	Nil	Nil
5.	Career Advancement opportunity	10%	15%	68%	7%	Nil
6.	Learning Opportunities	Nil	18%	80%	2%	Nil
7.	Celebration of Achievement	60%	20%	20%	Nil	Nil
8.	Opinion about the assigned job	15%	50%	35%	Nil	Nil

Source: Primary data

Table 2 presents the opinion on factors that are designated by Fredrick Herzberg as Motivators or Job Satisfiers. The responses are more towards the average side instead of being on the extreme positive or extreme negative side. 90% of the respondents were of the opinion that the growth opportunities and recognition of work performance in the organization was moderate to good. When asked whether they were given freedom to take decisions regarding their work, the response was on the negative. 79% respondents confessed that they were micromanaged and not given freedom to take independent decisions. 66% of respondents were very happy about the responsibility being entrusted on them by the superior.

They felt valued in the organization. Only 25% of the respondents opined that after working with Priyadarshini Filaments Pvt. Ltd. the Career advancement opportunities had become better for them. When asked about training and learning opportunities, only 18% gave affirmative feedback. 80% of the Respondents were happy about the way they were appreciated and rewarded for their good performance. Respondents were asked whether they felt a sense of pride in doing the job assigned to them, to this 65% of the respondents shared that they felt extremely proud working at Priyadarshini Filaments Pvt. Ltd.

Table 3: Respondents' Opinion on Hygiene Factors / Job Dissatisfiers

Sl. No.	Motivators	Extremely Good	Good	Moderate	Poor	Extremely Poor
1.	Ease of Communication with Supervisor	43%	53%	4%	Nil	Nil
2.	Frequency of Communication with Supervisor	23%	57%	12%	8%	Nil
3.	Style of Leadership	Nil	18%	80%	2%	Nil
4.	Support from Peers	56%	40%	2%	2%	Nil
5.	Opinion about Salary received	2%	7%	33%	56%	2%
6.	Status/respect given to employees	91%	2%	2%	2%	3%
7.	Opinion about company policies	13%	40%	40%	7%	Nil
8.	Opinion about Job security	10%	68%	21%	1%	Nil
9.	Opinion about working conditions	18%	57%	15%	8%	2%
10.	Priyadarshini as a workplace	15%	50%	35%	Nil	Nil

Source: Primary data

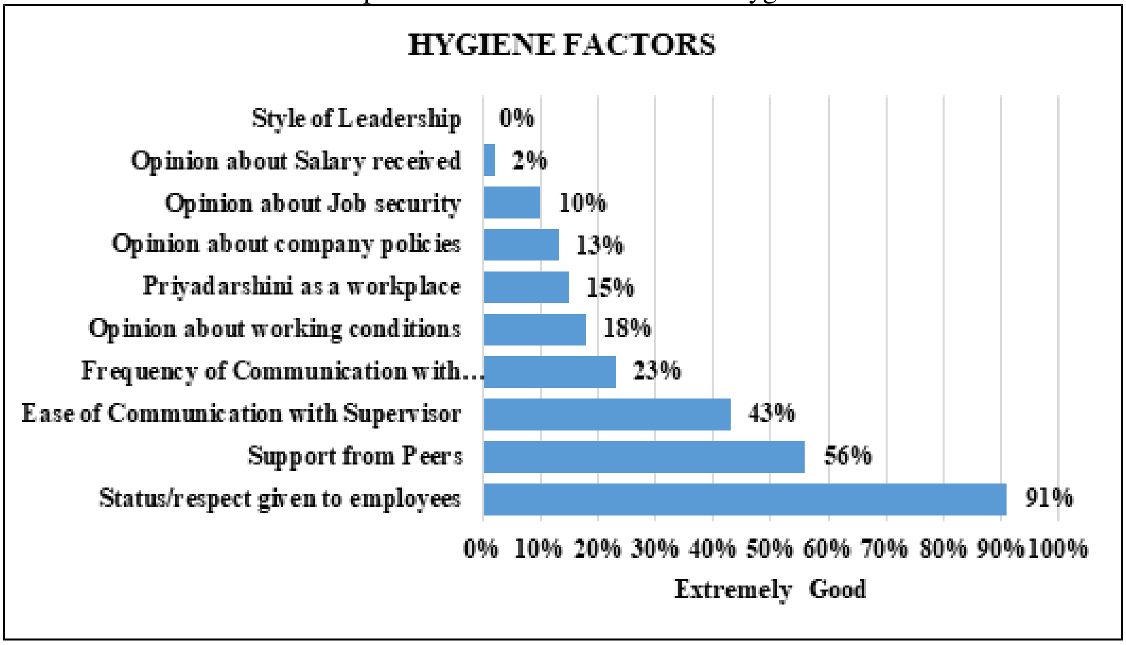
The table 3 above presents the response received from 60 respondents regarding the hygiene / maintenance factors at Priyadarshini Filaments Pvt. Ltd. Respondents have expressed their happiness towards the supervisor interaction (43%) and peer support (56%) received in the organization. The style of leadership is an area of concern, as 80% respondents have scored it at a moderate level. Salary too seems to be an area of dissatisfaction for 58% of the respondents. Majority of the respondents appear pleased with the company policies (53%) and 78% employees do not have job insecurity. 75% of the respondents have expressed their satisfaction towards the working conditions, 10% however feel the management of workplace needs attention. 65% respondents felt valued in the organization; hence they plan to continue working for a long period of time.

Chart 1: Respondents' satisfaction towards Motivators

Source: Primary data

To summarize, the employees at Priyadarshini Filaments Pvt. Ltd., have rated the organization high when it comes to the factors improving motivation. Employees feel responsible, feel valued and feel proud of being employed at this organization. However, the lack of learning and growth opportunities and freedom to take independent decision could be an obstacle in achieving high levels of job satisfaction.

Chart 2: Respondents' satisfaction towards Hygiene Factors



Source: Primary data

When it comes to the Hygiene or Maintenance factors, the respondents have expressed happiness towards Status of work, inter-personal relationships with peers, communication with superior, company policies and working conditions. The areas where the satisfaction of employees is on the lower side are style of leadership, salary / pay and feeling of job security. Hence, we can say the organization has managed to provide hygiene factors so as to avoid job dissatisfaction.

8. RECOMMENDATIONS

Based on the study carried out, the picture appears quite positive. The employees are motivated by the motivators and not dissatisfied with the hygiene factors. However, in order to excel and gain competitive advantage the organization can adopt the following strategies.

- ✓ The organization follows a Flat Organization structure, which limits the growth opportunities for employees. If couple of managerial levels are added it could become a motivator for employees to continue working in the organization as they have a chance of career growth and advancement.
- ✓ It is important to conduct a Training need assessment and plan training programs for employees. This has been an area of concern; hence knowledge upgradation is essential.
- ✓ Regular engagement and dialogues are essential to build a friendly workspace. Employer must initiate town hall meetings and encourage employees at all levels to share their feedback.
- ✓ The organization must put a sound and fair performance appraisal system in place comprising of peer assessment, superior assessment, and self-assessment. Both intrinsic and extrinsic rewards are essential for employee motivation.
- ✓ The leaders could adopt a participative leadership style which allows freedom for the team members to take decisions and carry out their responsibility in an effective manner.
- ✓ Employee engagement is a key to employee motivation and commitment. The employees could be involved in some welfare activities and team building activities. This would improve teamwork and involvement of employees.
- ✓ Being a production unit; workplace safety is of utmost importance. The working conditions have to be safe and employee friendly as it is the most common reason for job dissatisfaction.

9. CONCLUSION

Most employees need motivation to feel satisfied with their jobs and perform their best. Some workers are driven by financial gain, while others are personally motivated through rewards and recognitions. The level of motivation directly affects how productive employees are at work. Employees who are motivated and enthusiastic about their job perform their duties to the best of their abilities, which result in higher output. Employers must understand the factors that motivates employees and at the same time identify factors that cause dissatisfaction. Understanding and effective application of Herzberg's theory can help an organization to build a contented and motivated workforce.

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HEALTH CARE SERVICE TRADE IN THE SOUTH EAST ASIAN REGION: PARTICULARLY IN BIMSTEC

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ABSTRACT

Objective: *Trade in health related services across the world brings along cross border movement of health workers and patients in accordance with the Free trade agreement conducted on Trade in Services, particularly in South-East Asian countries like Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand, as will be discussed in this article.*

Scope: *The scope for this study will be to analyze the role of consumption of health services in abroad, service of cross-border healthcare, commercial presence of health related facilities and movement of health providing personnel, in the expansion of trade in health services across the nations coming under the BIMSTEC group in South-East Asia.*

Methods: *The method of data collection for this study is from secondary sources like 10-12 articles from various scholarly websites like WTO, OECD library and the official website of World Health Organization. The relationship between variables of the research will be analyzed by the application of thematic analysis.*

Results: *From the thematic analysis, it could be known that there is a positive impact in the expansion of trade in health services in response to the cross border trade, commercial presence, and movement of health personnel and consumption abroad of the various types of health care services. However, there is a need for an increase in investment and better strategic planning in order to manage effective trade in healthcare services both in the public and private sector.*

Conclusion: *In this study, the factors of health care provisions are associated with the trade in health services, focused mainly upon the South East Asian countries health sector in positive correlation with identification of certain recommendations by which the outcome of healthcare trade services can be improved with introduction of certain policies, capital investment and safe measures.*

Keywords: Cross-border movement; Health services; BIMSTEC; Globalization; Health sector;

INTRODUCTION

With the rise in cases of infections and diseases around the world, the health sector economy is continuously growing and is estimated to generate US $3 Trillion every year in the countries to contribute to national economic growth and development solely. In this study, the scope of research will be mainly focused on the health services trade being conducted between countries of South East Asia for the consumption of health services abroad, cross border movement and commercial presence of healthcare facilities and the movement of health personnel. The background of research will be discussed with respect to the health related trade services ongoing in the countries under BIMSTEC cooperation that are mostly the Southeast Asian nations like India, Nepal, Bangladesh, Myanmar, Thailand and Bhutan (Bhutia, 2020). The research aim and objective will be determined for the study as well and the variables of research will be discussed in detail. The method by which the data related to the study was gathered is to be mentioned with the findings and supportive theoretical implications as well for the data generated. The role by which the healthcare industry of South East Asia is growing and developing with the sharing of healthcare services with the application of joint ventures and formation of collaborative agreements with the health organizations in the respective nations. Several nations in South East Asia are increasingly engaged in joint ventures and alliances with respect to the regional networks available for the purchase of health aid.

Mode of delivery and examples of health service trade

Mode	Description of mode	Example
1	Delivery of services consists of cross border trade	Telemedicine, research and experimental development, laboratory services, claim processing.

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2	Movement of health service consumers (patients) to consume services in territory of the partner country.	Specialized hospital and surgical care (transplantation, cosmetic surgery, and convalescent care), alcohol and drug dependency care, health tourism.
3	Movement of service provider to produce services in foreign territory by establishing commercial presence	Health insurance companies, diagnostic facilities clinics, investments in healthcare facilities (hospitals).
4	Movement of natural persons to provide services	Temporary movement of physicians, nurses and paramedical personnel. Professional services provided through international agencies like PAHO and UNAIDS.

Source: Adapted from Gonzales and others, 2001, table 6, p.54.

BACKGROUND OF THE RESEARCH

B I M S T E C stands for the Bay of Bengal initiative for multi-sectoral technical and economic cooperation and comprises countries like Bangladesh Bhutan India Myanmar Nepal Sri Lanka and Thailand bringing together about 1.5 billion people and approximately 21% of the world population US$ 2.5 trillion to the global GDP. There is a B I M S T E C free trade agreement signed between these countries which enables the terms of commitment of the parties to negotiate the terms of FTA in good service and investment in relation to all the external sectors of the business of the countries. South East Asia consists of about 600 million individuals from the urban region with cities like Mumbai and Delhi being one of the highly populated states contributing the highest population rate. Recently, there is a huge pressure being laid on the national healthcare system under the BIMSTEC member countries that agreed for the establishment of BIMSTEC free trade area framework agreement for stimulation of trade and investment in the parties and gain the attraction of the outsiders for trade and investment in the agreement at higher level. Since the past two decades, the rise of globalization in these countries has affected all the sectors affected by the political, socio-economic and technological factors in an indirect and direct manner as well. It can be considered that an improved health service lets the countries become ready for facing challenges of the integration of the external environment and global commerce. Therefore, the rise in opportunities to expand and the economy can raise the chances for the developing countries to be capable of maintaining good health and ensuring material well-being. Having broader access to the facilities of healthcare can directly affect material prospects of the people and also, the trade in health services can lead to reduction in their vulnerabilities. However, there are certain challenges that exist for the South Asian countries to practice health care trade and those are gender inequality, and income based discrimination in health where mostly the poor income group is left devoid of health facilities and this can be concluded because these regions are showing the slowest progress the global health perspective.

RESEARCH AIM

The research aim is to determine the role of health services trade in the BIMSTEC region of South East Asia in the promotion of quality health services and development in the economy.

RESEARCH OBJECTIVE

- To find the impact of mode of delivery in development of health services trade of countries under the BIMSTEC region.
- To establish the relationship between Export and Import healthcare services trade particularly in BIMSTEC regions
- To discover the interrelationship between commercial presence of health facilities with the trade in health services for South East Asian countries.

RESEARCH RATIONALE

The first question that arises with regards to the trade in health services is the availability or unavailability of migration issues for example if qualified personnel of a particular medicine department can move freely from one country to another. Therefore, currently there is import of trade services in health care going between South Asia, Afghanistan, Bangladesh and Sri Lanka. A cooperative framework may accelerate BIMSTEC nations to pave way for advanced expertise availability in some of the countries like India with the help of telemedicines, tele-diagnosis, tele-pathology and tele-radiology based services to the healthcare organizations of other BIMSTEC countries. Trade in the health services aspect can be integrated through arrangement of health services for patients seeking health aid in other countries, monetary investment in laboratories and hospitals and irregular or temporary movement of health professionals like the surgeons and medical practitioners. The exchange of trade from cross-border movement plays a significant role for trade in the health sector for service delivery. However, as there is very little information derived about the cross country trade in the health services, there is slight difficulty existing in measuring the ultimate barriers that act in the conduction of trade in health services especially in the cases of BIMSTEC nations. A few of the BIMSTEC countries are becoming crucial exporters of tourism in health services, mostly India, Myanmar and Thailand. There are information on export revenues and the number and origin of the international patients for the nations. India tops as being the largest exporter in the region with the majority of foreign patients visiting from Indonesia, while Myanmar has about 25% of international patients visiting from the BIMSTEC nations. In Thailand, the individuals that visit for attaining health care service are from Japan.

REVIEW OF LITERATURE

Cross Border Movement of Health Services

Cross-border delivery such as laboratory shipment of samples from the laboratory, diagnosis and consultation of clinical equipment through traditional mail channels and electronic method of delivery for health services contribute to the cross-border movements in health service trade. There are a range of health services like tele health services such as online pathology, tele-radiology and tele-psychiatry that persist in the countries that act as telemedicine initiatives through a cross-border approach. For example, tele diagnostic, services of consultation and surveillance are gathered by the hospitals from the USA in the European nations and Indian physicians serve as the professionals from tele-pathology services to the hospitals in Nepal and Bangladesh. China has arrangements for the supply of telepathy services through its hospitals in the coastal province for patients in Macau special region of administration in Taiwan and some Southeast Asian countries.

Abroad Consumption of Health Services

Abroad consumption is defined by the traveling of consumers to the nations for provision of services relative to treatment and diagnosis. As per this mode, several patients in developing countries like Indonesia, Nepal and Bangladesh, seek specialist driven effective quality treatment from overseas in the healthcare organizations in the developing countries around the neighborhood like in Thailand and India. As opined by Medhekar & Kaur (2021), patients from the developed nations also seek high quality and affordable medical aid or traditional medicines as an alternate option to prefer low side effects based treatment from the developing countries. India exports its health services through the mode of consumption abroad and patients from across different developing countries like Bangladesh, Nepal, Sri Lanka and the USA for the availability of surgery and services in specialist care for neurology, cardiology, urology and nephrology from India. The countries are attracted by a wide range of high qualified health care specialists of India and the kind of capability possessed by the country to offer effective quality of healthcare professionals and affordable treatment.

Movement of Health Personnel

There is an exchange of trade of health personnel like physicians, technicians, nurses, paramedics, midwives and consultants between countries of the BIMSTEC. The movement may be based on a short or long term basis including legal, social and economic applications from the individual countries. As stated by Ali & Medhekar (2018), temporary flow of health personnel can be driven by the application of strategies for promotion of export of health services for earning foreign exchange and fostering government cooperation. Like, there is a flow of health care attendants from India to the Eastern Mediterranean nations, where the Mediterranean is a center for physicians, physiotherapists, and nutritionist and rehabilitation individuals. A number of countries have adopted distinct policies toward migration of medical practitioners in the BIMSTEC, so that there is maintenance of a permanent outflow of personnel from countries like India, Myanmar, Thailand to the other developed nations so that they can gain economic stability in return for providing health aid to the patients. Some destination markets like USA, Germany and Canada actively invite or have passage for inflow of health personnel under specific categories of health provision department.

Presence of Commercial Health Services Trade

Commercial presence is composed of the establishment of treatment centers, nursing homes, diagnostic centers and hospitals and clinics. Countries in the BIMSTEC like India, Indonesia, Nepal, Sri Lanka and Thailand are open for the condition of foreign direct investment. Example, a 200-bed hospital in Delhi has the approval of about 90% foreign equity ownership from a German company. India and Thailand have experts from diversified areas of medical and paramedical education, health tourism and alternative medicinal treatment. Cuba and Thailand have also joined together to offer a combination of healthcare facilities with recreational activities and tourism. India is exploiting its niche in the traditional approach of medicines like the Unani, Ayurvedic and Homeopathic forms of treatment and several other holistic approaches of healthcare centers to gain attraction from patients from the majority of the western countries. A number of specialty private hospitals from South

East Asian countries have their mergers with international hospitals from Australia, Canada and UK. Another example could be considered of the commercial presence that the Apollo group of hospitals in India has formed for a few hospitals to be made in the neighboring country in Malaysia, Sri Lanka and Nepal by investing about US $4 billion.

THEORETICAL IMPLICATIONS

The idea generated in the article is determined from a range of international policies and provisions that exist in the South East Asian countries as well as the rest of the world in context with the general agreement of trade in health care services. Roy *et al.* (2022), the initiatives that facilitate cross-border movement of health care services is the implementation of international regulations regarding the cooperation in the health sector amongst BIMSTEC countries as well as the basic regulations that enable provision of telemedicine services to the niche regions. At the international level, the right to health of the migrants to the countries is kept in check and with the privatization of health services; the patients are given different opportunities to seek obligations from the international pharmaceutical companies and hospitals to get medical help. A particular framework or theory cannot be followed for the practice of health care services trade in the countries under BIMSTEC cooperation agreement and hence, it can be considered that the patients mobilize the resources available to them for accessing cross border health care (Elangovan, 2019). From the articles reviewed, it could be concluded that overseas patients select their destination of attaining therapeutic treatment on the basis of their experience from the social networks like word of mouth from the closed ones. The word of mouth comes from the source of family, friends, contracts of business and also referrals from close doctors with the implication of networks in the profession and society. The opinion of the individuals being responded to for the influence in determining the destination of treatment is mostly based on the recommendation from the above mentioned group of people. However, there could be certain drawbacks from the movement of personnel as in patients with this aspect, it is because there can be certain dissatisfaction with attaining services at home.

SIGNIFICANCE

In addition to it, the hospitality experiences of different countries is suggestive of the fact that it is crucial for the adoption of effective strategies related to the promotion of health services trade. The strategy is aimed at exploiting the comparative advantage of a country in diverse areas like the approach of traditional and alternative medicines, exploitation of natural resource endowments, tapping of regional and cultural markets, education, telecommunications and insurance. In the BIMSTEC region, international as well as regional cooperation will be needed for addressing emerging issues in the trade of health service such as cross-border transactions, liability malpractice, aspect of telemedicine privacy and abroad consumption.

METHODOLOGY

As stated by Sun & Lipitz (2018), Secondary data analysis has been followed in this study and it is known that secondary data is the kind of information that is collected on the basis of research conducted by some other author or from the reports and articles posted from official websites of registered governmental and non-governmental institutions. There are a number of advantages that can be attained by the use of a secondary approach of data collection and analysis and these can be time and cost saving. The methodology utilized to conduct the present research is that initially the topic had been defined with regards to the statement of purpose that was to discuss the role of health services trade in the fulfillment of healthcare for the people around in the South East Asian region, particularly. The research design had been defined in the manner that about 10-20 research articles had been focused to derive the various information the context of the research topic required. The method of approach that had been chosen to conduct the research was to review articles that mostly represented qualitative data rather than quantitative data in the secondary source. Since there is a wide range of availability of supporting literary journals, it was critical to decide upon the exact articles that were relevant with the research topic. Therefore, from all the available sources from the websites of OECD and WTO and several others channels, the prioritized sources were narrowed down and within which all relevant topics and points had been undertaken for being analyzed in context with the current research. After that, the sources gathered had been evaluated on the basis of the relevance to the topic of concern, it was ensured that the articles published were not more than 30 years older and the kind of data was mostly facts and hypothesis presented by the respective authors of the sources.

RESEARCH FINDINGS

Cross Border Movement of Health Services

The aid of telemedicine by the application of cross border movement can cause the health care providers to cater to remote and underserved population segments. It is capable of removing human resource constraints and also enables cost saving surveillance of various types of diseases through innovative means of technology and research techniques. When the health care services in BIMSTEC region of South East Asia are able to be transferred through a cross border approach, the quality of diagnosis and treatment are improved, and skills can also be upgraded by gaining experiences in foreign countries and using the techniques. As stated by Kamruzzaman and Action (2019), there is also a buildup of great communication between healthcare organizations of different countries of South East Asia in the process of having interactive electronic means of discussion related to the health care services to be offered or shared. At present, in most of the rural regions, mostly in India, Nepal and Bangladesh, the lack of effective communication and network coverage in the areas and power sector infrastructure being underdeveloped pose as a problem for the transfer of health care services through telemedicine approach as it can involve a lot of costs to fix the issue. In such scenarios, there can be arrangement conducted for the resources regarding the telemedicine approach fulfillment by the public sector in regards to the investment for improving the areas in relation to facilitation of better health care for the prevention and cure of disease and this arrangement can contribute in a direct impact on the poor in a positive manner. However there can be several risks associated with telemedicine and that can be channeling of revenues away from the rural as well as the primary health care facilities towards the more organized specialized centers offered by the private sectors that focus more on the technology in the developing countries. On the other hand the efforts that should be late on primary health care which can contribute in providing healthcare facilities for a wider audience in areas of countries like India Nepal and Thailand could be stopped by this approach of telemedicine improvement.

Abroad consumption of healthcare

Health services trade through the consumption of abroad has a range of implications both positively and negatively in the countries it is associated with to provide the health provisions for different organizations. As showcased by Raju & Chaudhury (2022), then considered from the positive perspective it can open a passage for exporting countries to consider improvement of their National health system by generation of foreign exchange and availability of resources for investment in the sector of health by the help of neighboring countries in the foreign land. It is also capable of helping the countries in provision of specialized health care services and to overcome the lack of availability of human and physical resources in the countries that mostly import such as Thailand, India and Indonesia. On the contrary, the abroad consumption can also contribute in the dual market structure to appear by the creation of a better quality as well as an expensive segment of health care catering service to be employed by the well the nationals and foreigners as well as it can offer a lower quality of resource restricted segment of health care to the poor. Also this kind of opportunity can also become a challenge for the poor as the available of services such as the specialized physicians and medical practices as well as the availability of beds in the private centers of hospitals in the countries of import of health care services can be provided on the basis of the higher income to the lower income group seeking for the specific medical aid. This approach can be considered as a discriminatory approach and may result in the crowding out of the local population in the public sector.

Movement of Health Personnel

It is known that the trade implications through the movement of health personnel are not properly distributed. From the perspective of Ahuja (2019), the countries resources and increase in the moment of the health service providers can contribute in the generation of remittance and transfer which can inter promote the transfer of clinical expertise and knowledge among the professionals and also contribute the up-gradation of standards and skills of the countries under the South East Asian region of BIMSTEC agreement. As mentioned by Marwah *et al.*(2022), it does not mean that there is a shortage of health workers in the region in an overall aspect however due to the unavailability of proper awareness regarding the outer reach of traveling facilities a lot of workers are left unemployed due to the low income countries economy restrictions. Almost all of the countries in South East Asia face the issue of uneven distribution of health personnel especially in the rural areas. Irrespective of the fact that there is high capacity for the training provisions in medical and nursing departments and both the private and public sectors however there seems to be a weak coordination existing between the health workers production and the employment capacity. There can be arrangements of certain policies that can improve the movement of health through regional experience and policy responses for addressing the challenge. One feature that BIMSTEC countries under South East Asia practices is the interaction and cooperation with the international trade in health services for example Singapore and Malaysia are tempt to import health personnel for meeting the domestic demand of health services in order to provide effective care and service in healthcare to their international patients this kind of situation is resultant in the brain drain of highly specialized medical practices from the public medical schools to the private organizations in healthcare. It has been found that Indonesia is considered as one of the main exporters of medical professionals like doctors and nurses in the regions of South East Asia as well as the countries in the US.

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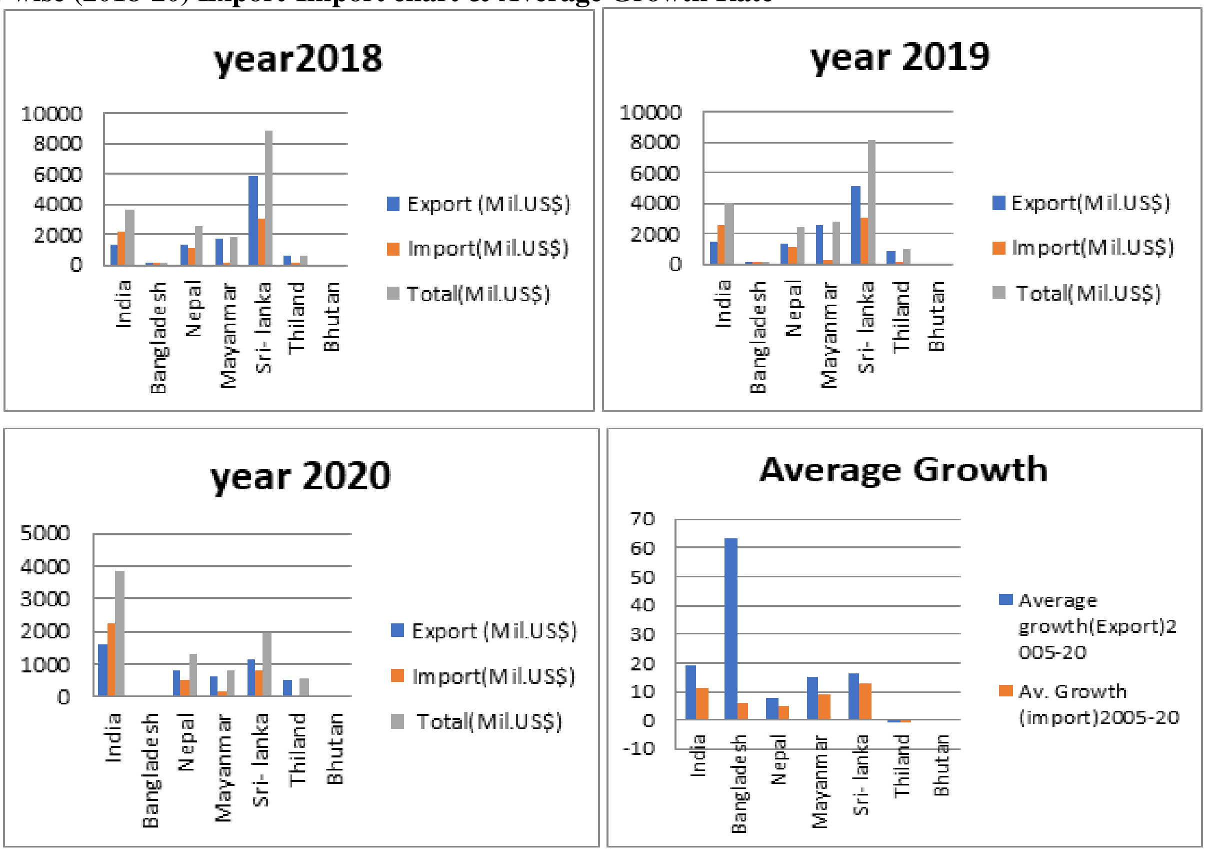
Commercial Presence of Health Services Trade

In the context of commercial presence of trade in health services abroad can contribute in the generation of additional resources regarding investment as well as the up-gradation of infrastructure and technology in the health care sector can improve employment rate and reduce the underemployment rate of the health personnel especially in the rural regions of the BIMSTEC countries. As opined by Sarkar (2022), expenditure of government towards the public health sector is directly proportional to the presence of private capital investment that contributes to the reduction of the total burden put on the resources of the government. Several partnerships merge and acquire affiliation with the most respected institutions in the healthcare sector in the developed countries can also contribute to the improvement of service facilitations in developing countries like India Nepal and Indonesia and hence give introduction to the high tech technology and information systems for efficient health care treatment. On the other hand the positive implication from the less pressurized government resources can be that there is an offset by the primary public investment which can be needed for the attraction of foreign direct investment into the health care sector of the developing Nations in south east Asia. However at two tiered system may also and up in an internal brain drain as an approach of improved health care personnel flow from the segment of public health care to the private segment that involves better payment and superior in infrastructure this is a kind of problem that is present in countries of South East Asia like Thailand where an increase in the number of health care personnel from the public to the private health sector as a matter of response to the rise of joint venture between the hospitals have reduce the presence of health services in the rural places where it is needed the most. As suggested by Suri & Tyagi (2020), the commercial presence of health services trade is thus needed to be present at all levels of the community both public as well as private so that each individual can take advantage of it rather than just the private sector.

Year wise (2018-20) Export-Import chart & Average Growth Rate



Source: WTO service database.

DISCUSSION

As per the implication of trade liberalization in the conduction of health services the neoclassical theory can be considered for the increase of export in health services for example the outgoing and flow of foreign patients as well as the health care professionals can contribute in the rising of prices of health sector services in the concerned country for example India and Nepal. The poor population of the regional countries in response to the rise in the domestic prices of health services offered to the private sector of the patients and this can only be stopped when the resources and the gains in income are re-distributed to each of the sections in a proper manner in accordance with the public health system. The availability of quality care from the human and physical resources in the health care sector when required to be improved, it is needed that the health care sector should increase the allocation of expenditures to meet the local needs and priorities. Several other measures can be to reduce the high cost of land in urban areas by providing financial aid like giving loans to the small hospitals and equipment to rationalize the cost of specialized facilities by derivation of the institutions to share the burden with the public sector health care organizations as well. In this manner the revenue generated from the trade and health services could form a portion for the development of the public health care sector as well. That the commercial presence of the health care services in trade with the implication of Delhi medicine can highly benefit the outrage of healthcare facilities to be distributed equally between the rural and urban regions of the South East Asian countries. Apart from it with the aid of investment and supportive policies and agreements movement of persons in the health care organizations can be easier to be transferred. On the contrary the abroad consumption of health care will also provide opportunities to the list market.

From my study, conclude that the export growth rate of Bangladesh is high and Thiland is low. Also find out that the import growth rate of Srilanka is high and Thailand is low among the BIMSTEC region in the World.

RECOMMENDATION

There are a number of policy priorities and issues to be discussed, some of which are the addressing of brain drain up-gradation and investment in the health care sector and promotion of interaction between the public and private health care sectors. For the brain drain the root causes of the problem have to be addressed which is the short term bilateral agreements between cross border flow of health personnel in the southeast station countries can be negotiated for the supply in line with the domestic supply and demand conditions. For example the health care personnel that have issues with traveling in cross border can be arranged with several special visa schemes and programs are required recruitment as well as the can be offered for skills up-gradation and exposure to the foreign exchange earnings in a temporary manner. In this way the bilateral cooperation works effectively and the health care professionals from the foreign markets of India and Thailand can be capable of visiting The other Nations under the BIMSTEC agreement without the thought of being paid less as it was expected earlier.

CONCLUSION

In this study the health care services trade in the BIMSTEC particularly in the South station region had been analyzed in context with the implication of cross border movement, commercial presence abroad consumption and movement of personnel. It has been known that the globalization of the health services is mainly reflected on the basis of the above mentioned factors with the increase in communication and networking of the health care organizations from different countries to attain the most efficient health care facility at convenient price rates and available. It is known that the improvement in joint ventures, collaborative arrangements and investment in the improvement of health care facilitation equally in the public and private sectors will help the countries in South East Asia overcome the challenge of high rate of health provisions gap between the poor and the high income groups' individuals. The study initially highlighted the background of the beanstalk agreement in accordance with the implications of hell services trade-in the country's it is associated with and then the fastest mentioned above have been discussed in a brief manner. Apart from it critical analysis had been conducted to review the possible implication of these factors like cross border movement commercial presence movement of health personnel and abroad consumption can have on the future improvement of the provision of quality care for the patients that initially struggle to attain health services from the foreign countries they desire to reach for the respective health aid.

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A STUDY ON SERVICE QUALITY OF QUICK COMMERCE

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ABSTRACT

Quick Commerce, often known as Q-commerce or "on-demand delivery," is a distinctive business model where micro- and smaller-quantity products, such as groceries, stationery, and over-the- counter medications are delivered between 10- and 30-minutes using internet-based ordering platforms. This market has grown after the Covid-19 outbreak disrupted the supply chain and consumer shopping behaviour. It tends to concentrate on. The vendors are increasingly concentrating on micro-warehouses located close to the delivery location rather than conventional warehouses out in the suburbs. The sheer intensity, ease of ordering, and speedy delivery are the principal sources why the quick commerce trend is developing. Quick Commerce uses the dark store strategy to become the largest retail outlet in an urban area. A dark store typically serves a radius of 2 km. These are located close to apartment buildings and have the necessary Stock Keeping Units. Companies like Dunzo, Swiggy Instamart, Blinkit, and Zepto presently operate 20–30 such micro-fulfillment facilities in the top 10 metropolitan areas where their 10–20-minute delivery services are active. Through omnichannel and multichannel strategies, Consolidation will take place and be crucial to the continued existence of quick commerce. Market analysts already foresaw a significant increase in rapid commerce growth, and with the advancement of new technologies like drones, electric vehicles, voice ordering, and the automation of Dark Stores, the market is poised for accelerated expansion in the future.

Keywords: Consolidation, Dark Stores, Omnichannel, Quick Commerce, Stock Keeping Unit

INTRODUCTION

Prior to the Covid-19 outbreak, a PwC study showed that most of the consumers worldwide valued efficiency and convenience above all else. The demand for speed and convenience is typically fueled by four factors: busy lifestyles, smaller homes, urbanisation, and ageing populations. However, the epidemic made these needs much more pressing, particularly in terms of the supply of goods. Nowadays, customers are less likely to walk into a store because of the prevalence of remote working. Because convenient commerce delivery is in such high demand, a new sector called Quick Commerce has emerged. The next stage in the development of eCommerce is called "quick commerce," and as the name implies, it is all about speed. Consumers can typically anticipate delivery within an hour after

placing an order because of quick commerce. Even though this may appear like a very short time frame, rapid commerce is typically reserved for modest orders rather than the weekly supermarket store. Retailers rely on online ordering platforms, neighbourhood warehouses, and delivery teams on two wheels to fulfil orders as quickly as feasible. Quick Commerce provides the convenience of fastest possible doorstep delivery of groceries and other consumables. There has been observed a significant increase in the Top-up and Unplanned purchases, particularly in Metro and Tier I cities which is facilitating the growth of the quick commerce industry in India. Increasing Willingness of the consumers to pay premium for quick deliveries, changing shopping habits towards more frequent unplanned & top-up purchases has led to the growth of the quick commerce market in India. By FY'27, it is anticipated that Tier II and below will have a significant market capture, whereas metro & Tier I cities is still expected to lead and contribute the highest share in the market. Awareness will take time to spread in Tier II cities, but almost all the major players have started in or are planning to expand to Tier II cities. Companies are continually coming up with strategies to make this speedy delivery model a solid one because the sector is still in its early stages of development. Companies are building "dark stores" utilising a variety of geographic mapping technologies, and as a result, they have been successful in fulfilling about 60% of all orders within 40 minutes. The main variables influencing a consumer's purchasing decision are: quick delivery, price, discounts and offers, a large selection of products and availability, and ease of payment. Swiggy, Instamart, Blinkit, and Zepto are the biggest players; combined, they account for more than 80% of the market. Companies having a wide variety of products and quick deliveries are recognised as being at the top of their field.

Various parameters are used to evaluate consumer impression of service quality based on a review of Q-commerce. The goal of this research is to identify elements that are important for customer satisfaction and high-quality online shopping experiences as well as to build a theoretical, all- encompassing, and quantifiable framework for evaluating the quality of q-commerce services. This study examined the most widely accepted

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assessment standards applied to various q-commerce apps and suggests a broad, all-encompassing framework for assessing the quality of any q-commerce service in relation to platform features and customer support. The structure of the essay is as follows. The study first reviews the evaluation criteria that are used to evaluate the quality of q-commerce services before defining the parameters of the proposed framework and its indicators. The research's findings were then presented and debated. The final section brings the essay to a close and makes some recommendations for additional research.

LITERATURE REVIEW

This part comprises the papers that have been read and consulted for project implementation ideas as well as the algorithms that have been researched and comprehended to ensure project completion. A summary of a few of the papers, as well as their contributions, are listed below.

Quick Commerce- The Business of instant gratification. This research report aids in determining how approximately two-thirds of all consumer purchases are impulsive, have low to moderate order values, and require immediate fulfilment. It also generally refers to Quick Commerce as a new grocery shopping channel while emphasizing that platforms are expected to develop use cases in the future that go beyond other shopping verticals like electronics, fashion, and medical, among others. Additionally, the phrase "Scheduled e-grocery" is widely used, which mostly refers to conventional online grocery delivery services that require at least a day for delivery.

Factors affecting the adoption of quick commerce. This research report aids in our understanding of how Quick Commerce is fast developing in Tier 2 and Tier 3 cities while gaining ground in Tier 1 cities. Delivery fees and Minimum order values are two elements that are essential to the success of quick commerce, and businesses should place a lot of emphasis on them to make sure that their customers do not encounter many issues related to these two elements.

Quick Commerce: The Real Last Mile. With the aid of Bringg and Fluent Commerce, we can investigate the delivery & fulfilment platform and order management system to suit the expanding market need. Bringg gives you the power you need to deliver a seamless, omnichannel experience while assisting retailers and brands with quickly scaling up and optimising last mile operations. When providing a service like this, having a near real-time, always accurate single view of your inventory is essential. Fluent Commerce is a leader in cloud-native, scalable distributed order management. Bringg and Fluent Order Management can work with you to quickly implement quick commerce and the practical, quick commerce-inspired solutions that will differentiate you from the competition.

RESEARCH AND METHODOLOGY

The evaluation of the service quality of q-commerce applications was made possible by the analysis of the literature. Factors such as Gender, Age Group, use of most frequent Q-Commerce App, Number of orders placed, categories of products, payment method(s) were considered for this study. In contrast, customer service of q-commerce apps relates to such variables as: Delivery Speed, Return Policy, Product Availability, Price Range, Product Quality. The proposed model of q-commerce service quality assessment and its criteria have been presented in Table 1. Questions for the survey was conducted in December 2022. The research approach is based on primary data that we have gathered by surveying respondents using a Google form. The questionnaire was created in a way that makes it simple to interpret and makes it simple to record respondents' opinions on quick commerce. The google form that we floated generated a total of 81 answers.

Category of Question	Detailed Criteria
Gender	Male
	Female
Age Group	18-25
	26-33
	34-41
	42-49
	50-60
	60+
Q-Commerce App	Zepto
	Blinkit (former Grofers)
	Dunzo Daily
	Swiggy Instamart
	Big Basket

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No. of orders placed in a month	1-2 times
	3-4 times
	5-10 times
	10-15 times
	15-20 times
	>20 times
Product categories	Vegetables and Fruits
	Dairy items
	Pet Care
	Meat
	Cleaning and Households
Payment method	Pay on Delivery
	UPI
	Buy Now, Pay Later (BNPL)
	Credit/Debit cards
	Net Banking
Other factors	Delivery Speed
	Return Policy
	Product Availability
	Price Range
	Product Quality

Table 1: Category of questions with its detailed criteria

DATA ANALYSIS FINDINGS

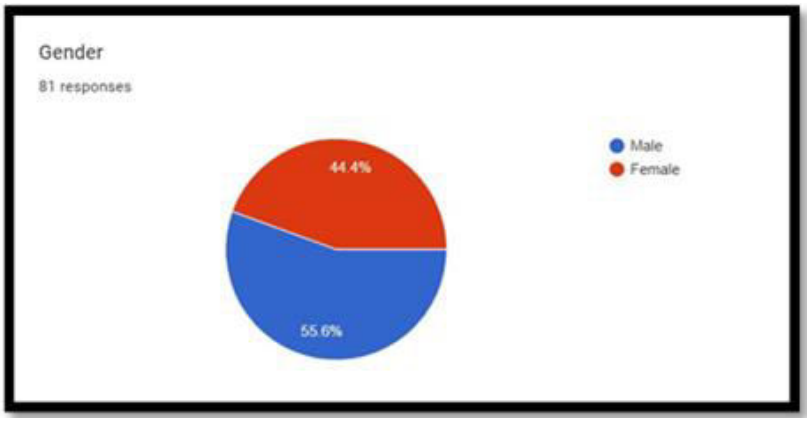

Fig1. Out of 81 responses which we received 44.4% (36) of the respondents were female and the rest 55.5% (45) were male, which is an excellent ratio to understand both genders' perspectives on quick commerce.

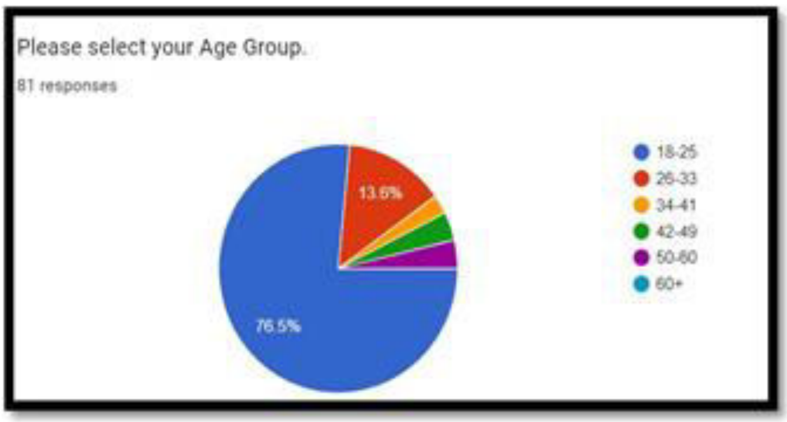

Fig2. Out of 81 responses which we received, 76.5% (62) respondents were from the age group of 18- 25 followed by 13.6% (11) from the age group of 26-33, 3.7% (3) respondents were from both the age group of 42-49 and 50-60 individually. One observation was that only 2.5% (2) respondents were from the age group of 34-41 which is less than the age group of 42-49 and 50-60.

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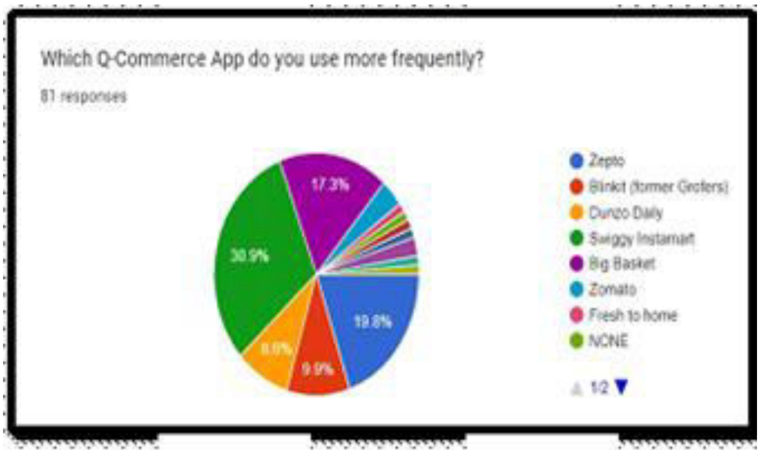

Fig3. Out of 81 responses which we received, 30.9% (25) respondents Swiggy Instamart is the most used app followed by 19.8% (16) respondents used Zepto, 17.3% (14) respondents used Big Basket, 9.9% (8) respondents used Blinkit (former Grofers) and 8.6% (7) Dunzo Daily. Remaining 13.5%

(11) respondents used other apps such as Zoamto, Fresh to home and Dmart Ready.

Fig4. Out of 81 responses which we received, most of the respondents which is 43.2% (35) place orders 1-2 times in a month, followed by 19.8% (16) respondents who place the orders 3-4 times, 16%

(13) respondents place the order 5-10 times and 8.6% (7) respondents place the order 10-15 times, 4.9% (4) respondents place the order more than 20 times. Remaining 7.4 (6) respondents place their monthly order at other time intervals.

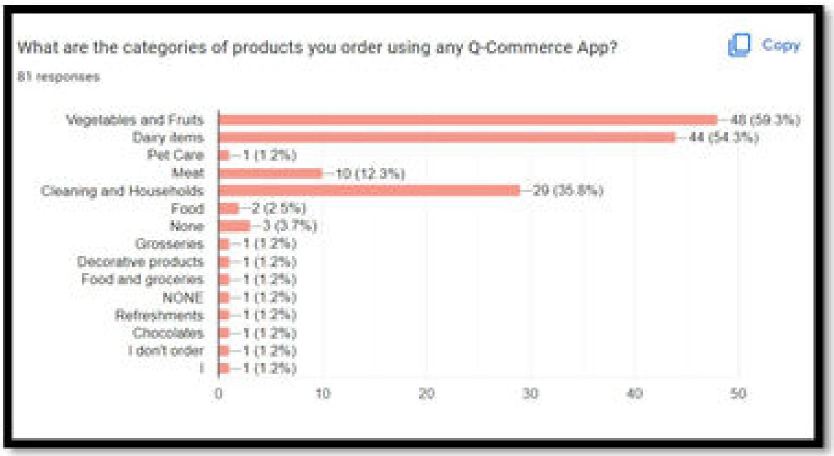

Fig5. Out of 81 responses which we received, most of the respondents which is 59.3% (48) buy Vegetables and Fruits followed by Dairy Items which is 54.3% (44) respondents, 35.8% (29) respondents buy Cleaning and Households, 12.3% (10) buy Meat. Other categories which 17% (13) respondents prefer are Pet Care, Decoration items, Confectionaries.

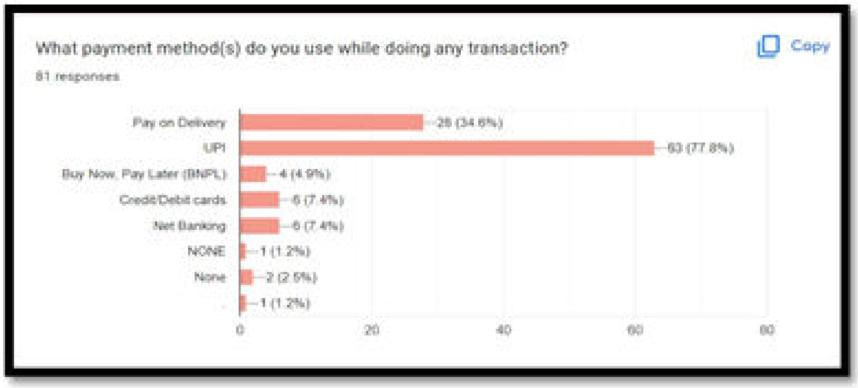

Fig6. Out of 81 responses which we received, most of the respondents which is 59.3% (48) buy Vegetables and Fruits followed by Dairy Items which is 54.3% (44) respondents, 35.8% (29) respondents buy Cleaning and Households, 12.3% (10) buy Meat. Other categories which 17% (13) respondents prefer are Pet Care, Decoration items, Confectionaries.

Fig7. Out of the five factors, the most influential factor preferred by respondents is Price Range followed by Product Quality then Return Policy, Product Availability and Delivery speed is the least influenced need of the customer.

DISCUSSION AND RECOMMENDATIONS

Some of my main observations after conducting the in-depth research include:

1. Quick commerce has a very promising future, as evidenced by the literature review of numerous papers that indicated the trend for quick commerce will only increase going forward and there is no turning back.
2. Working professionals who lack the time to visit their local Kirana store and get their daily household necessities are the primary target market for fast commerce giants.
3. Covid served as the impetus this sector of the economy required, and since then, the market for rapid commerce has only expanded and is expected to do so soon.
5. According to the results of our study, over 76% of those between the ages of 18 and 25 use rapid commerce platforms at least once a month, demonstrating that the younger generation is very predisposed to utilise these platforms and that it has now become a part of their lifestyle.
6. Our results indicate that Price Range, rather than Delivery Speed, is the most important element for customers to place orders from these platforms, despite the quick delivery service capability of q- commerce apps.

Some of the most important suggestions I would want to make are as follows:

1. Given that most respondents to our study did not place much emphasis on delivery times for orders, businesses should not put undue pressure on their delivery partners by lowering the delivery window to 8–10 minutes. Doing so would only increase their sense of performance pressure and anxiety.
2. The research that was done on the importance of using the q-commerce applications shows no discernible change. As a result, the competitive pricing strategy can continue as it in the present.
3. While age groups 42–49 and 50–60 regularly use these platforms to purchase, many respondents in the 34–

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41 age range continue to hold this belief. To keep current consumers and attract new ones, these platforms ought to try to provide clients in the 34- to 41-year-old age range better deals.

4. Another significant deterrent to using these platforms is the minimum order value (MOV), so in order to address the issue, businesses should work to make this MOV as low as feasible.

CONCLUSION

The Covid-19 pandemic disrupted supply networks and gave rise to q-commerce, a novel business model that allows for the delivery of goods and services between 10 and 30 minutes after placing an order. It is also referred to as "on-demand delivery," and it concentrates on micro- to small-quantity goods including groceries, office supplies, and over-the-counter medicines. The vendors are now focusing more on micro-warehouses close to the delivery site rather than conventional warehouses out in the suburbs. We have reached a new phase of business, one that is characterised by fast commerce. In Tier 1 cities, quick commerce is gaining ground extremely quickly, and it is expanding very quickly in Tier 2 and Tier 3 cities. There are some aspects that are essential for the success of rapid commerce, including:

1. Delivery fees
2. The lowest order value

In terms of the performance of these platforms, these two criteria are the most important, so businesses should pay close attention to them. If they do not, they risk losing their most devoted clients as a result of customer frustration with these two issues. The best thing about this model is that there is not one customer group that uses these apps more than others; instead, people from all different demographic and geographic backgrounds use these services and are generally satisfied with them, as shown by our research, which found that overall shopping experience on these platforms was very high. According to market trends, many merchants will adopt the use of micro-fulfillment solutions, and Q-commerce will significantly grow over the next few years. The warehouse and logistics sector has undergone upheaval as a result of the democratisation of mobile internet, the rise of eCommerce, and just-in-time requirements. A change in customer behaviour following COVID-19 is what is causing this increase. Customers would anticipate faster delivery for a wider range of goods, including electronics, clothing, and cosmetics. One strategy for addressing the market's rapid development is the integration of technology and automation in warehousing and logistics.

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COMPARATIVE STUDY ON CONSUMER BUYING BEHAVIOUR OF B.COM. AND M.COM. STUDENTS WITH RESPECT TO OVER THE COUNTER (OTC) DRUGS

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ABSTRACT
"Knowing who your customers are is great, but knowing how they behave is even better" - Jon Miller

The youth today is especially aware of the pros and cons of using random medications than their older counterparts due to easy availability of knowledge through internet and online education at a click of a button on the mobile and computer. The pandemic has also made us extra aware of our own body's health and needs. The work of a few qualified doctors or physicians has now become a standard household item where everyone is trying to be an expert on their own. The paper mainly focuses on the buying behaviour of college going youth with respect to Over the Counter (OTC) drugs and the factors influencing students to buy these drugs.

Keywords: Buying Behaviour, Decision Making, OTC Drugs, Undergraduate, Postgraduate.

INTRODUCTION
"Knowing who your customers are is great, but knowing how they behave is even better" - Jon Miller

Consumer buying behaviour basically means action or buying decision of a consumer before purchase of a product or service. Cultural, social, personal, and psychological aspects all play a key role in consumer's purchase behaviour.

The same pattern can be seen for the purchase of Over the Counter drugs. The youth today is especially more aware of the pros and cons of using random medications than their older counterparts. Also, the ongoing pandemic has made us extra aware of our own body's health and needs. Although the public today is more aware regarding the dire situation around, they are also more prone to get entangled into the addictions arising out of constantly using self-medication.

OVER THE COUNTER (OTC) DRUGS AND PHARMACEUTICAL MARKET
Over-the-counter drugs or OTC drugs, as they are more commonly known nowadays, are medications that can be purchased directly from retail outlets such as pharmacies, grocery stores, and so on, without a validated prescription from a physician. In general, its sale is authorised by regulatory agencies such as the FDA and is regarded as safe for usage with little to no drug addiction potential. Many medications that were formerly offered under the category of prescription drugs are now available for consumption as OTC drugs. Diphenhydramine, often known as Benadryl (cough syrup) or ibuprofen, is a common example of this.

According to the United States Food and Drug Administration (FDA), more than 800 OTC active components are available globally, which aids in manufacturing globally more than 100000 OTC products of the industry worldwide.

According to the **Mordor Intelligence Report**, "the Indian OTC industry is predicted to increase at a rate of 9.2% from 2019 to 2027." This is mostly due to the worldwide imposed COVID-19 lockdown and a lack of prescription medications in the traditional supply chain. On the other hand, due to the lockdown's forced digitalization, there is a steady increase in the supply of OTC medications via online availability. According to an August 2020 Open Access Journal paper titled "Prevalence and Predictors of Self-Medication Practices in India: A Systematic Literature Review and Meta-Analysis," the rate of self-medication in India is as high as 53.57% and 26.31% of this total comes from the lower-middle class people.

Emerging as one of the major markets for OTC drugs, India provides a stable growth potential, mainly due to its ever-growing population and increasing awareness of healthcare in general especially post the COVID-19 pandemic.

REVIEW OF LITERATURE
According to Kayalvizhi S. and Senapathi R. (2010), the pharmacist is essentially a drug marketer rather than a healthcare practitioner. The majority of respondents used self-medication in cases of disease that they thought had similar symptoms to an illness they had previously endured and managed. The researcher discovered that the main motive for self-medication was to save time because there was no need to contact the doctor. The survey found that respondents lacked understanding about self-medication and its benefits and drawbacks. The

researcher believes that there should be programmes to raise awareness about these benefits and drawbacks, and that pharmacists should urge clients to acquire drugs with a genuine prescription.

J. Shaji & S. Lodha (2010) found that wealthy countries such as the United States banned or restricted the sale of some drugs, while it is still in use in developing countries such as India and Mali. It emphasizes that these drugs are still sold in poorer countries as it is cheap and easily available. Research shows that it is critical for governments to impose strict restrictions on various actors in the pharmaceutical distribution chain such as manufacturers, distributors and retailers. Awareness of Adverse Drug Reactions (ADR) among physicians, health professionals, and the general public is critical and if implemented in a well-defined and coordinated manner, the market will be able to reduce his ADRs in the long term help to eliminate it completely.

According to Phalke et al. prevalence of self-medication in rural Maharashtra is 81.5% whereas in Tamil Nadu, only 23% of the rural population used self-medication or home remedies, and almost 77% sought medical help for their illness. Self-medication prevalence in Delhi city was found to be 92.8%, while in Orissa it was 18.72%. The study was conducted through web portal-based survey of 20,000 people in 10 cities, where it was found that 52% of Indians self-medicated, citing reasons such as lack of time, desire to avoid medical costs, and reliance on the internet.

According to Abinash Panda et.al (2017), the most commonly used pharmaceuticals for self-medication were paracetamol, drugs for gastrointestinal issues, and NSAIDs, with 56.5%, 40.5%, and 39.9%, respectively, as the most common symptoms were pain, followed by respiratory and gastrointestinal issues. Other studies conducted in India support the findings that NSAIDs were the most commonly used drug category for OTC treatment. In contrast to data from a study done in South India, where the OTC medication of antibiotics was as high as 39.3%, 10% of participants used antibiotics for OTC medicine. The study also show, OTC remedy behaviour can be predicted based on a person's socio-demographic profile, drug history and attitude towards the available health-care institution. This suggests that efforts aimed at influencing the general public's perceptions of the accessibility and affordability of health care are likely to influence OTC remedy use. The predictors could be utilised to put in place drug data programmes to make OTC medication more secure on precedence corporations that are more likely to use OTC medication.

OBJECTIVES

The following are the objectives of the research conducted:

1. To examine the factors influencing the consumption of OTC drugs amongst the youth.
2. To analyse level of awareness amongst the undergraduate and post graduate students regarding OTC drugs/ medicines.

HYPOTHESIS

H_1: There is a significant relationship between the demographics and consumer buying behaviour with regards to OTC drugs.

H_2: Level of education influences the buying behaviour of an individual.

RESEARCH DESIGN

DATA COLLECTION

The primary data for the research was collected via Google form from undergraduate and postgraduate students each from Mumbai Suburban area of Malad East. The area of study being home to a large portion of slum where majority of dwellers are middle class and lower class population. The respondents comprised of Programme under the Commerce Faculty such as B.Com. & M.Com. A total of 60 respondents participated in the data collection via random sampling method, comprising 30 of each undergraduate and postgraduate students.

TIME PERIOD

The research focuses on responses from students who have enrolled in B.Com. and M.Com. Programmes for the academic year 2022-23.

LIMITATION OF THE STUDY

The data collected is from a limited number of respondents and for a limited time period i.e. for the academic year 2022-2023; hence it cannot be applied as general theory for all the students in different faculties of similar institutes/ colleges in same or different localities across Mumbai Suburban.

DATA ANALYSIS

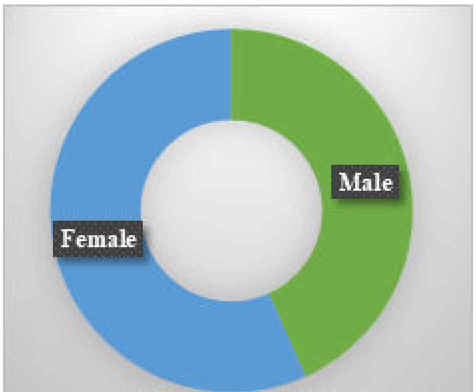


Fig. 1: Gender

Table 1: Gender				
Programme	Male	%	Female	%
B.Com.	18	60	12	40
M.Com.	8	26.67	22	73.33
Total	26	43.33	34	56.67

The above table and figure shows that out of the 60 respondents 43.33% were male while 56.67% were female. Out of the total respondents 18 and 8 of males and 12 and 22 of females were students of B.Com. and M.Com. Programme respectively.

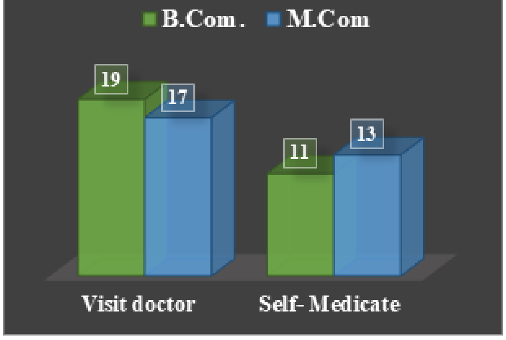
Table 2: Year of Programme enrolled in						
Programme	**1st Year**	**%**	**2nd Year**	**%**	**3rd Year**	**%**
B.Com.	12	40	8	26.67	10	33.33
M.Com.	17	56.67	13	43.33	-	-

Table 2 shows that out of the total respondents 12 are in their first year, 8 respondents are in their second year and 10 respondents are in their third year of B.Com. Programme whereas 17 and 13 respondents are in the first and second year of their M.Com. Programme respectively.

Table 3: Are you employed?				
Programme	**Yes**	**%**	**No**	**%**
B.Com.	9	30	21	70
M.Com.	23	76.67	7	23.33
Total	32	53.33	28	46.67

In table 3 it can be seen that out of the total respondents 53.33% are employed, out of which 30% are from B.Com. Programme and 76.67% belong M.Com. Programme. It can be noted that majority of B.Com. respondents are unemployed, whereas majority of M.Com. respondents are employed.

FIG. 2: WHEN ILL WHAT DO YOU DO?



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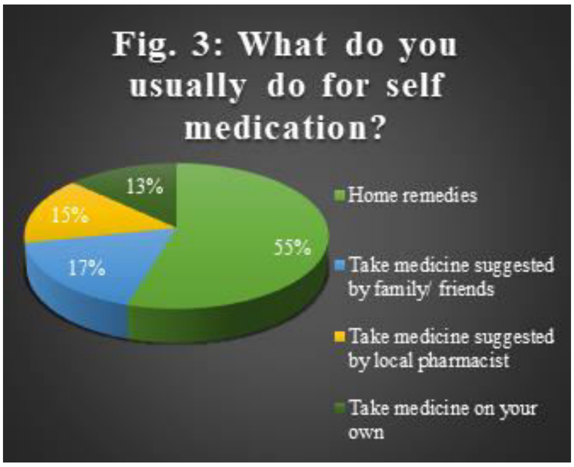
As figure 2 shows around 60% of the respondents visit the doctors when they are ill whereas 40% of the respondents self-medicate. It can be seen that respondents of M.Com. Programme self-medicate more than their B.Com. counterpart. Although a vast majority of respondents still visit doctor in times of illness the fact that an unavoidable number of respondents have started self-medicating cannot be ignored.



As per figure 3, about 55% of the respondents prefer home remedies for curing their minor illness, whereas 17% of the respondents take medicines suggested by their family/ friends and 15% of the respondents prefer suggestions by their local pharmacist. 13% of respondents consume medicine on their own. This mainly consist of people who have repeated illness and are aware what medication was prescribed to them earlier and hence they repeat the same medication rather than asking others.

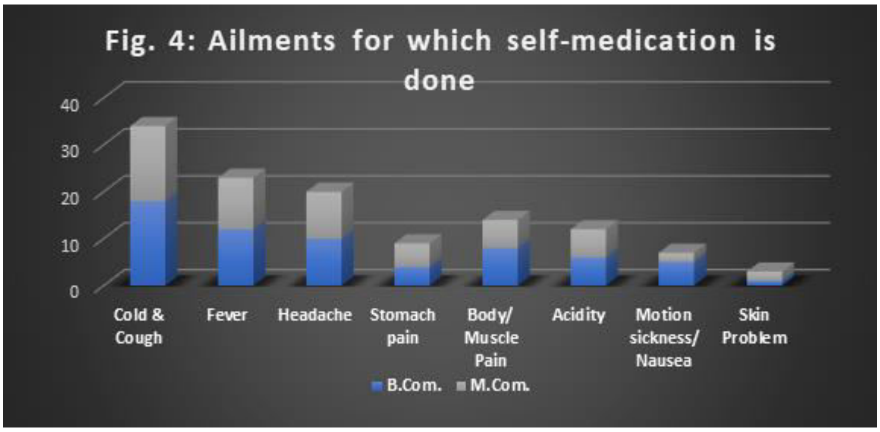


Figure 4 shows that cold & cough, fever and headache are the top three ailments for which majority of the respondents seek self-medication rather than visiting the physician. The respondents buy OTC drugs for ailments like stomach ache, body pain, motion sickness and some also buy these drugs for skin related problems like rashes, itching, dry skin etc. It can be noted that in comparison with M.Com. respondents very few B.Com. respondents use OTC drugs to cure their minor ailments. This can be attributed to the fact that M.Com. respondents do not have time to visit the general physician due to their work schedule and hence they tend to lean towards OTC drugs to save time and money.

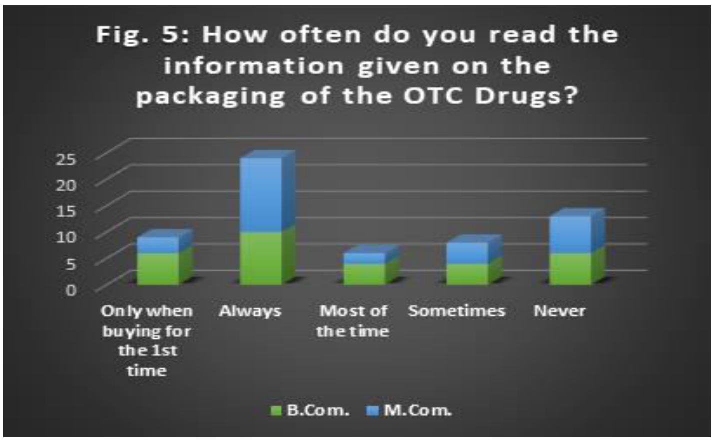


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Figure 5 shows majority of the respondents from both B.Com. and M.Com. read the information given on the label of the OTC drug every time they make a purchase, whereas around 15% of the respondent prefer reading the information on the package of the medication only when buying for the very first time. Around 13.33% and 10% of the respondents read the information on the packaging most of the time or sometimes if not always. It is shocking to see that around 21.67% of the total respondents never read the information given on the packaging of the OTC drugs.

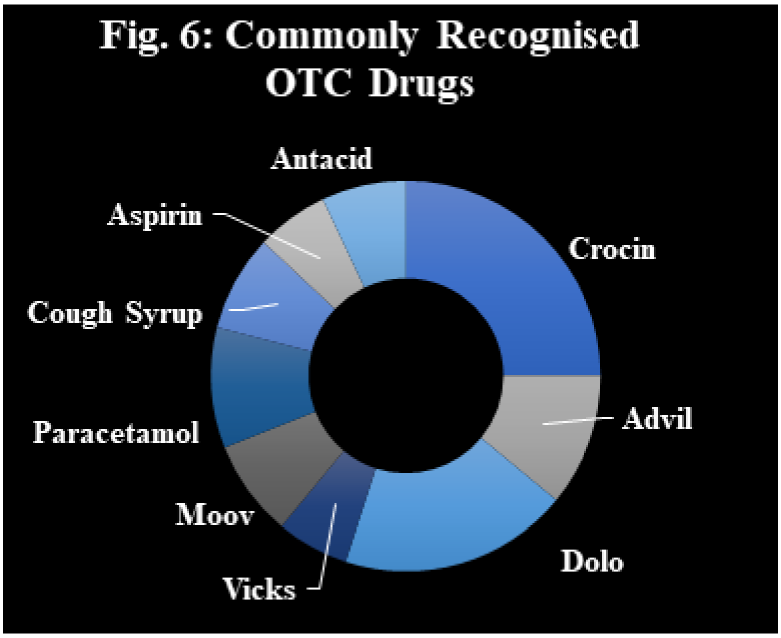

Figure 6 depicts the most popular and recognised names in OTC medications that respondents can recollect using or recommending to others. Crocin and Dolo were the most easily recognised names on the list, as they have grown prevalent in everyday use since the COVID-19 outbreak began. Other names in the category included pain relievers such as Moov, cough drops such as Vicks, cough syrups, Advil, aspirin, and paracetamol.

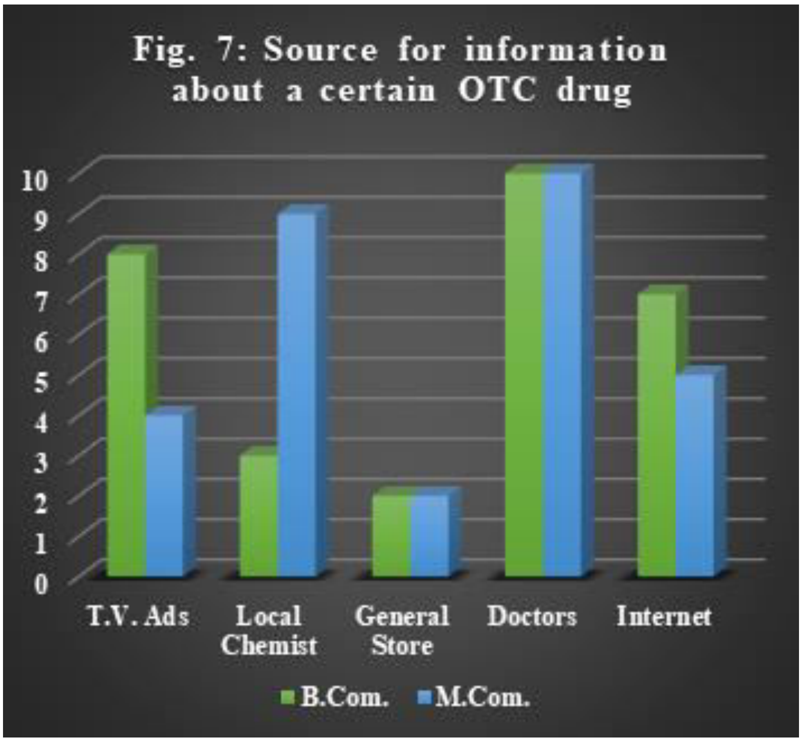

Figure 7 shows that majority of the respondents be it from B.Com. or M.Com. Programme depend on their doctors and chemist for any information on OTC drugs. It can also be noted that compared to M.Com. respondents, majority of B.Com. respondents also ask their local chemist for advice/ information on OTC drugs. Other than that internet and T.V. ads play an important role in giving the knowledge about OTC drugs.

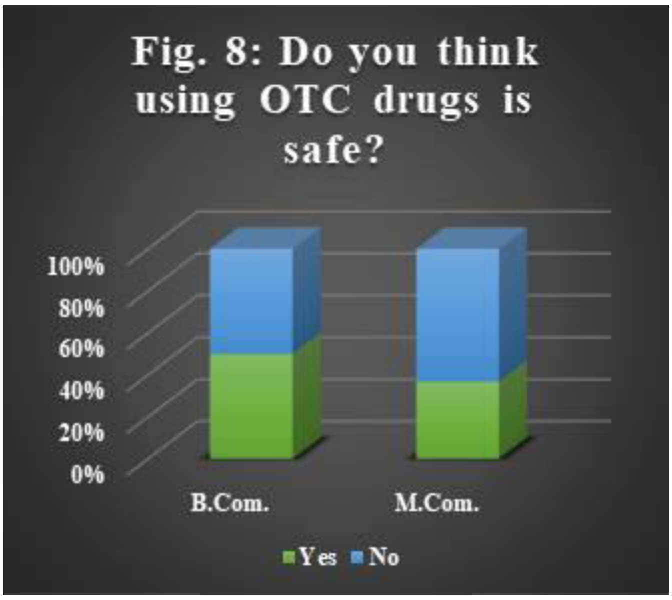

Figure 8 shows that out of all the respondents who were asked if they think using OTC drug is safe, majority of the respondents denied the safety of OTC drugs. This fact can be attributed to unawareness of the chemical components, the side-effects of the OTC drugs and the purpose of the drug. Although the respondents think it is not safe to use OTC drugs, the fact doesn't stop them from its consumption occasionally

CONCLUSION

"A few heart-whole, sincere, and energetic men and women can do more in a year than a mob in a century."
- Swami Vivekananda

Due to the worldwide connectivity of internet and digitalization, today's youth are more knowledgeable than their older generation. Although it can be noted that post graduate students use the most OTC medicine, it can be due to the fact that they must strike a balance between attending their online lectures and their job. It can also be observed that, despite an increase in reliance on self-medication, people still aware that they require expert advice. They do not use unknown prescriptions on their own, nor do they buy any medications simply because their favourite celebrity endorses it. They opt for the OTC drugs endorsed by a reliable person such as their general physician or their local pharmacist.

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STUDY OF THE GLOBAL RECESSION & ITS IMPACT ON INDIA

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ABSTRACT
Global recession is being predicted for 2023 based on current economic indicators. This has been a world wide discussions for some time now by global renowned economists. The interesting and most relevant point is how is it going to impact India , to what degree and what are the current economic indicators in India and of course which industries are better off and which are in bad shape . As of now , global recession seems to be a certainty but the degree of its impact on India is not so clear though it does look like India would be least impacted compared to other developing nations as per various Business and Economic reports published globally and in India .

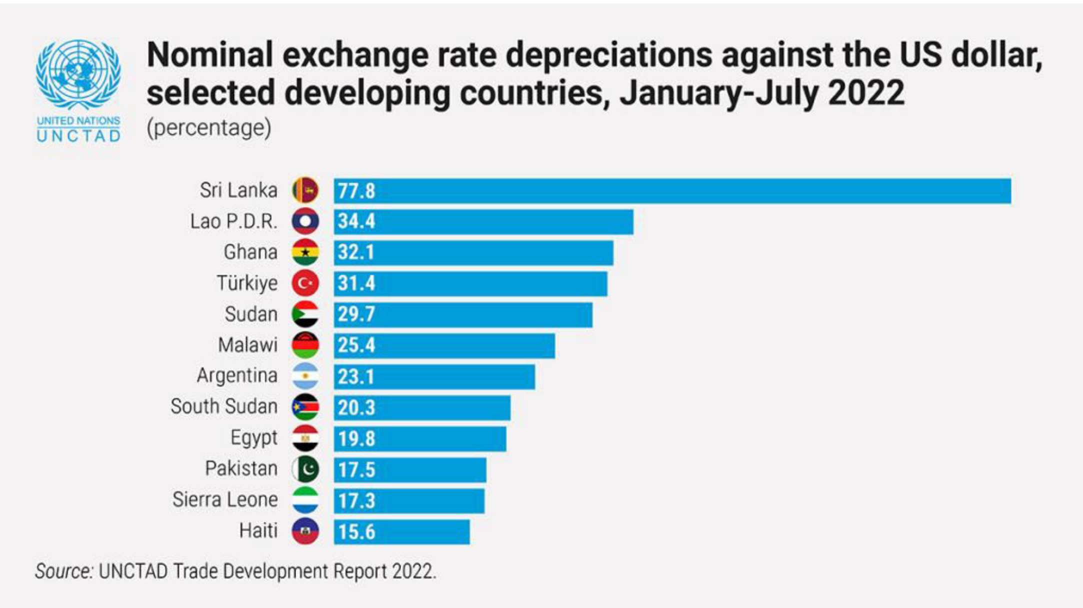
Keywords: Global, Economy, Recession, Certainty, Economic Indicators, Impact, India

RESEARCH PAPER

In recent weeks, there is only one discussion around the whole world on the current indicators of a Global recession, which some believe will be worse than 2008 recession or for that matter even worse than the recession due to the pandemic of 2020. One need to look at the global economic indicators and more particularly India , because that's what is going to hit the common man of India. The answers to the multiple questions on current economic crisis , its degree and impact on various countries including India will be available by studying the numerous economic reports published in recent times by International Monetary Fund (IMF) , United Nations Conference of Trade and Development (UNCTAD) , Federation of Indian Chambers of Commerce & Industry (FICCI), Asian development Bank of India (ADBI), KPMG , Accenture and by some economist in various journals and newspapers of India and International This research paper attempts to understand the Global recession and evaluating the various indicators with an emphasis on its impact on India particularly the degree of impact on India.

To begin with let us accept that Global recession is a definite certainty in 2023 due to the monetary and fiscal policies of the advance economies of the world drawing a global recession and this creating a financial crisis in addition to the Covid -19 pandemic & the Russia-Ukraine war . This was clearly spelt out by UNCTAD report[1] of 3rd October 2022 as well as by Mr Samrat Sharma's Report [2] .

UNCTAD Report has indicated a much lower global growth of 2.2 % in 2023 compared to 2.5% in 2022 and suggested few action points to avert the crisis and support the developing countries due to the excessive financial burden. This will leave the GDP below the pre-Covid trend by end of next year with a shortfall of about $ 17 Trillion –approx. 20% of the world's income. Around 90% of the developing countries have their currencies weakened against the dollar , over 33% of them by more than 10% . Foreign exchange reserves falling is become a big concern for these countries.



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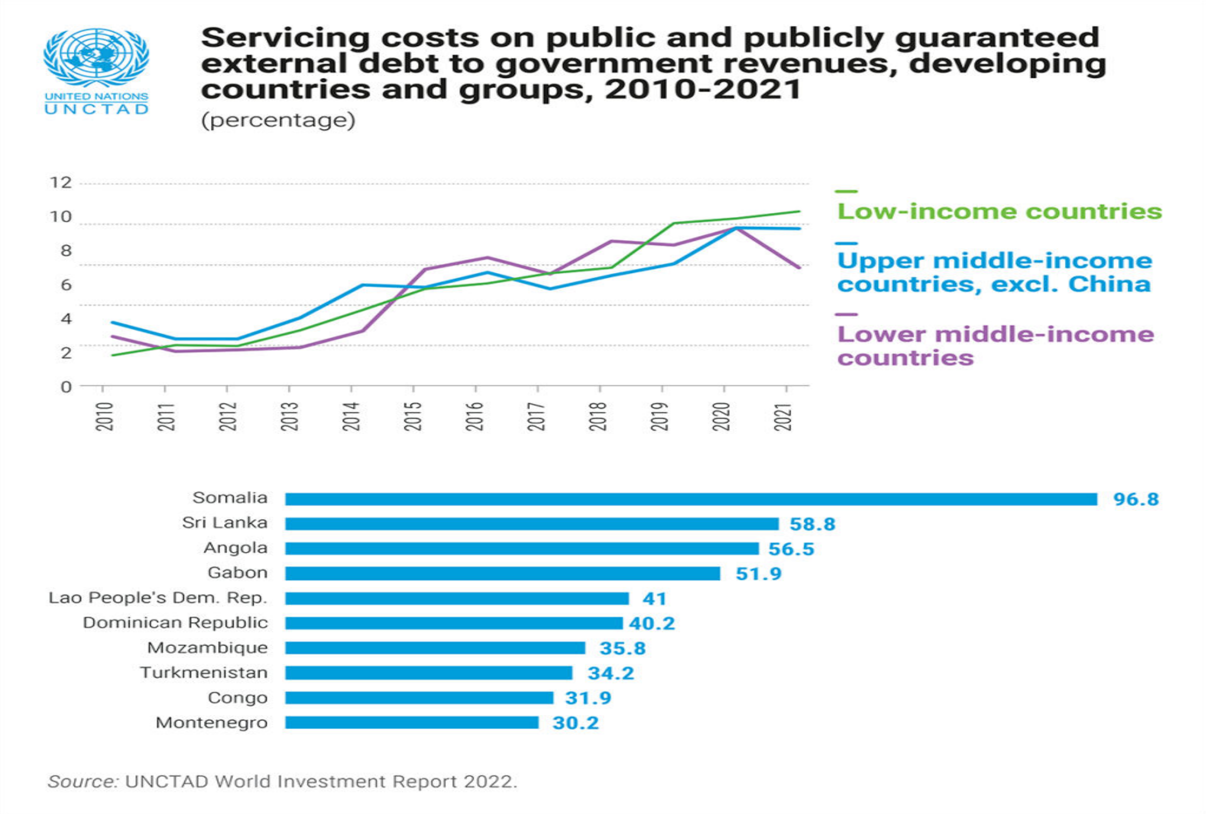
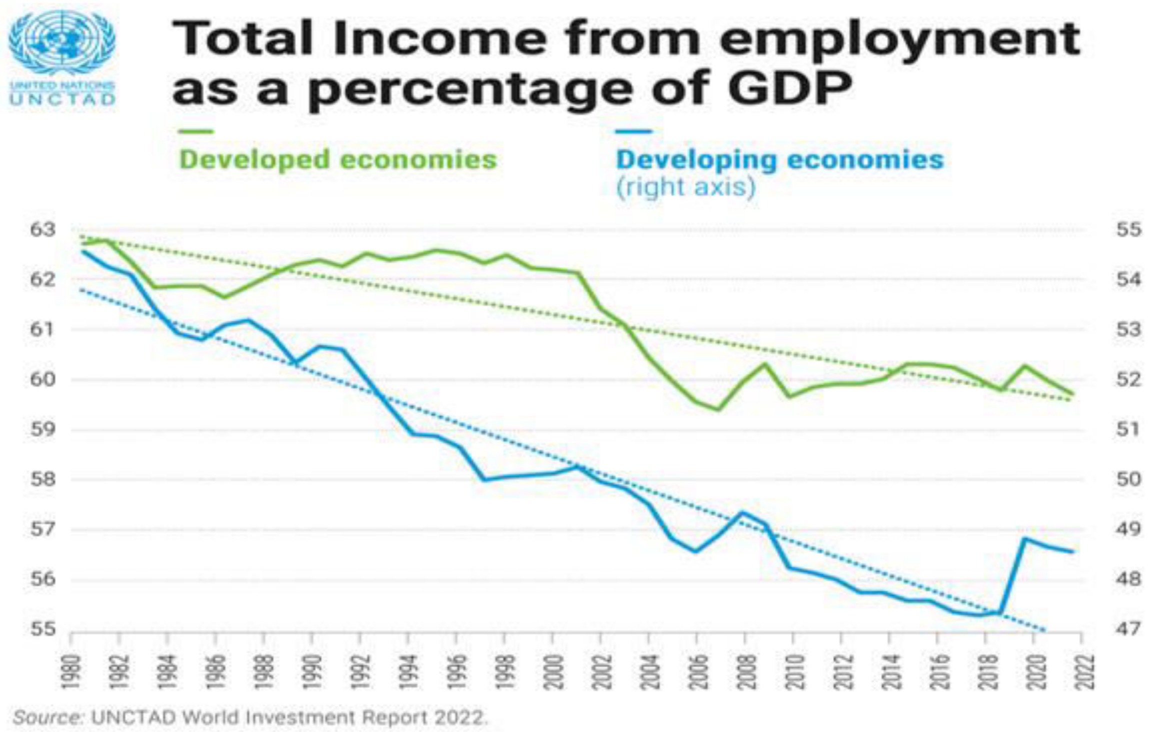
In fact, UNCTAD call for increasing Official Development Assistance (ODA) , a better utilization of Special Drawing Rights (SDRs) , hedging to overcome exchange rate volatility and greater leveraging of multilateral capital to support developing countries with comprehensive social programs. Monetary tightening is the need of the hour as inflation has been mostly driven by commodity prices-especially energy and supply chain issues with insufficient investment since the global financial crisis.



In fact Richard Kozul –Wright, head of the team in charge of this report very aptly indicated in the report and I quote " the real problem facing policy makers is not an inflation crisis cause by too much money chasing too few goods but a a distributional crisis with too many firms paying too high dividends, too many people struggling from paycheck to paycheck and too many governments surviving from bond payment to bond payment



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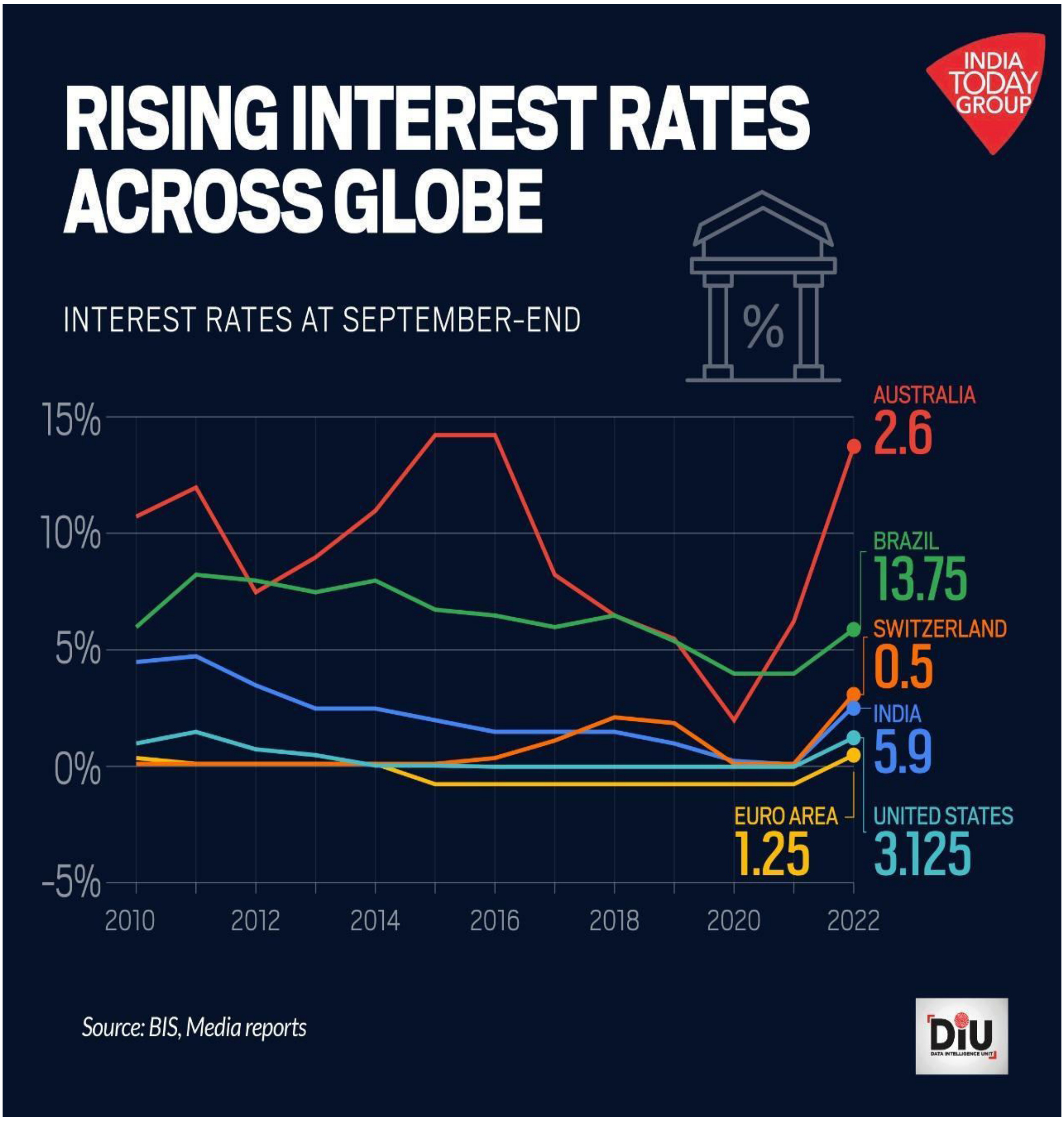
United Nations with their Black Sea Grain Initiative has done well in lowering food prices, The FOOD Price Index , FAO declined for fifth successive month to 138 in August 2022 registering a lowest level in 7 months . Cereals went down 1.4% and Wheat prices fell 5.1 % linked to resumption of exports from the Black Sea ports in Ukraine . UNCTAD urges a more practical strategy that involves strategic price controls, drastic reduction in taxes, anti trust measurers and tighter controls on commodity speculation .

There was a glimmer of hope when UNCTAD Secretary General Rebecca Grynspan said and I quote " There is still time to step back form the edge of recession and We have the tools to calm inflation and support all vulnerable groups . This a matter of policy choices and political will . But the current course of action is hurting the most vulnerable, specially in developing countries and risks tipping the world in a global recession"

In addition to the above Mr Samrat Sharma in his paper did point out that the IMF (International Monetary Fund) has raised a concern on the recession in 2023 . Rising Interest rates to arrest Inflation may not be a workable solution as it will have devastating impacts on people of the developing economies and emerging markets .



Mr. Kristalina Georgieva of IMF earlier mentioned that the world economic growth may be lower by $4 trillion through 2026., of course the most impacted will be developing countries, many of which are edging closer to debt default .Lower income and lower middle income groups like Sri Lanka, Angola, Gabon and Laos are spending more money to service their public debt .

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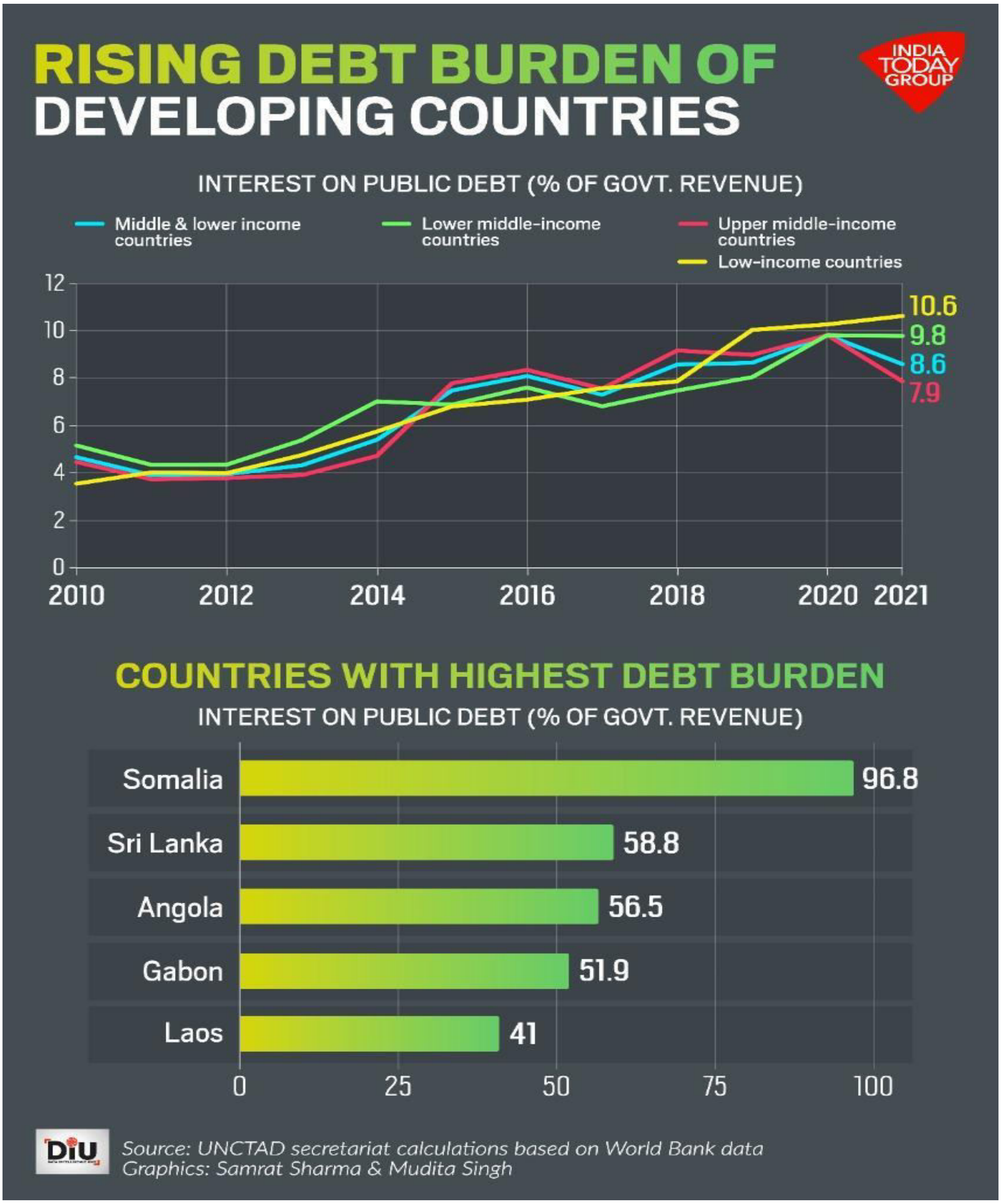


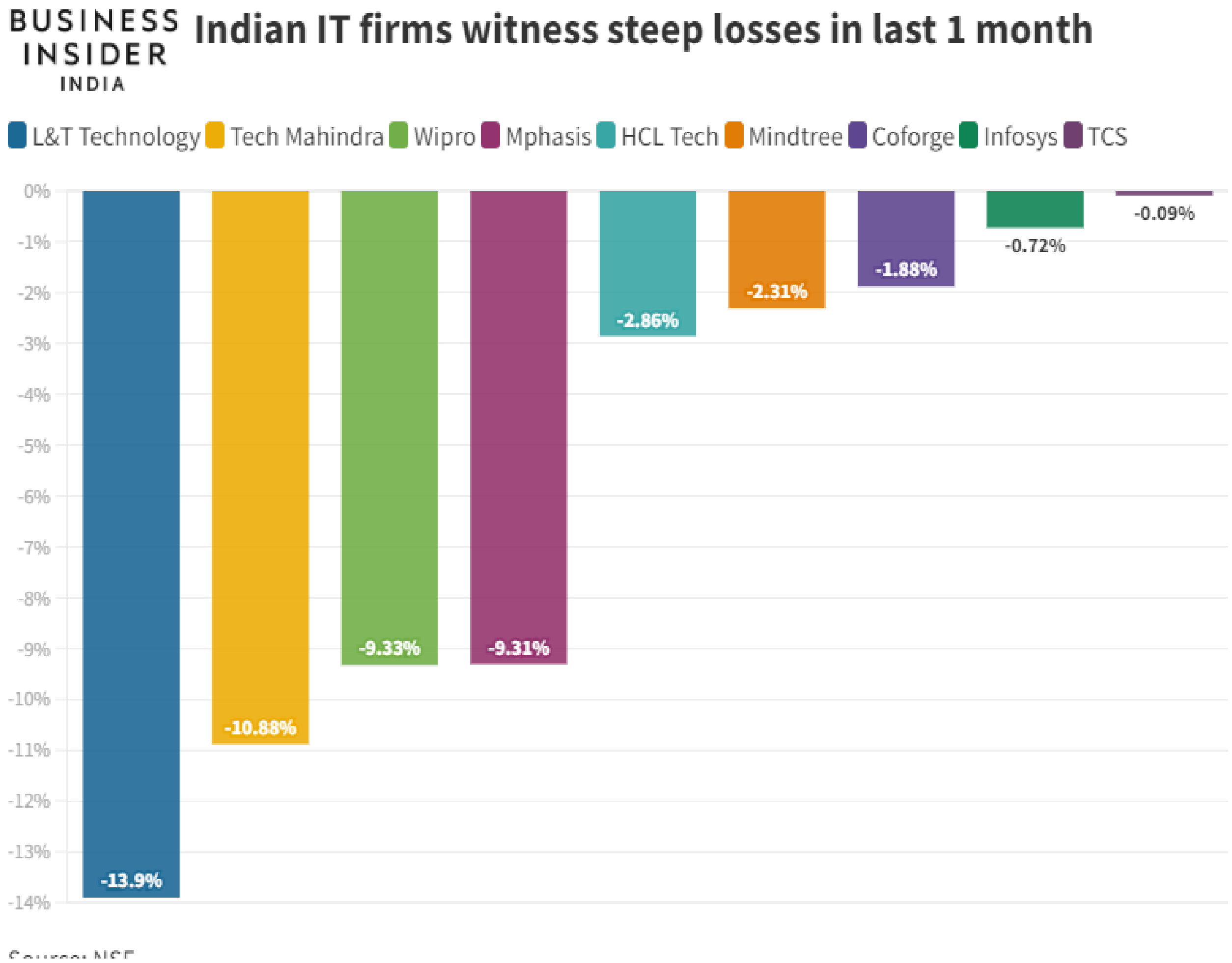
In fact IMF has also reported in its publication[3] of 11th October 2022 that the Worst is yet to come and for many people 2023 will feel like a recession thus giving clear indications that Global recession is a certainty in 2023 . IMF has stated that there is miscalibration of monetary, fiscal or financial policy has increased the risk enormously with the world economy remaining historically fragile and financial markets showing signs of Stress . Mr Jamie Dimon, CEO of JP Morgan Chase has told CNBC that the crisis was pretty predictable and that US need to display leadership role and thus should have been producing more oil and gas . Polish Prime Minister Mr Mateusz Morawiecki said Europe's energy crisis was mostly due to the wrong disastrous policy of Germany

KMPMG report[4] based on the survey of Global 1300 CEO's did give a very positive look of the economy over a 3 year horizon in spite of seeing a recession coming . In fact 80% of the CEO's see the next one year showing a rather mild and short recession only and & 71% of CEO's felt the impact on company earnings will up to 10% and 76% of CEO's have already taken precautionary steps for this difficult recession ahead. Also 70% of the global CEO's believe a recession will disrupt anticipated growth .Bill Thomas, KPMP Global Chairman and CEO felt the issues experience by once in a generation viz, global pandemic, geopolitical tensions, inflationary pressures and financial difficulties have always come in short succession and had impacted the global CEO's. He also mentioned that it was a welcome sign to see reasonable levels of confidence in their CEO;s and executives of companies dealing with the top concern of economic climate of their companies and the long term growth.

TABLE: Top 3 Current Concerns For Ceos

GLOBAL	UK
1. Pandemic fatigue or continued uncertainty/restrictions.	1.Economic factors (interest rates, anticipated recession, inflation)
2.Economic factors (interest rates, anticipated recession, inflation)	2.Pandemic fatigue or continued uncertainty/restrictions
3.Emerging / disruptive technology	3. Emerging / disruptive technology

According to Ms Bhakti Makwana report[5] in the Business Insider India, there will be a big impact on the Global IT players and they will have to bear the brunt of a strong US dollar but the Indian IT players are struggling to overcome the jolt of potential recession in Europe and US. Post Covid, Indian IT giants TCS, Infosys and Wipro did report record earnings since their clients were pushing for digitizing their operations to meet their IT demands. The growth period now is now over and the same companies and many others have seen a drastic correction of their stock prices.



The report in the Economic times[6] dated Sat , 15th oct 2022 by the SBI Chairman , Mr Dinesh Khara had a very solacing effect on the readers of India when he mentioned that India unlikely to be hit as hard by global recession as other countries . In fact he categorically stated that the recession feared by the International Monetary fund and the World Bank is unlikely to be pronounced in India as compared to other countries as India's inflation is very much under control with a projected growth of 6.8%. SBI chairman cited the main reason being India majorly has an inward looking economy in terms of demand because of the GDP essentially being directed to domestic economy . Also the primary cause of inflation is not driven by demand but is predominantly a supply side driven inflation where the capacity utilization is just about 71 % , thereby still having a cushion of utilization.

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"Although it is unpleasant, slower growth in the advance countries will significantly cut down on the Indian government's expenses. Oil and commodities prices could decline if the West experiences a recession " a top Indian government official informed Business Today TV[7]. This will therefore help ease India's fiscal burden to a great extent .

If the world's economies struggle with development, India's imports of crude oil and fertilizer would become less expensive. As senior official stated that India is somewhat sheltered from the global economy, but we are still inextricably bound to it though a bit insulated. Who can stop inflation and how? The situation will stabilize if we wait for the appropriate time, the official continued.

Meanwhile, India will increase its crude oil production in order to meet 25% of demand by 2030, according to petroleum minister Mr Hardeep Singh Puri as given in the article in the same Business today[8] titled **"**Bright spot on dark horizon': IMF Director hails Indian economic growth amid recession fears" . India currently imports about 85% of its total crude demand and uses five million barrels of oil per day. According to official figures issued this week, India's consumer price index inflation numbers for September increased to 7.4%. The main driver of higher inflation was food. Core inflation increased to a 4-month high of 6.3% while food inflation soared to a 22-month high of 8.6%.

This is the second straight quarter where the average is higher than 7% and the ninth consecutive month where the inflation print has remained above the top band of 6%. According to reports, irregular rainfall is the main cause of the increased price of fruits and vegetables. Although cereal inflation has also crept up, the government's actions and a reasonably strong Kharif crop are expected to allay the worries driving the additional increase in prices.

In another Business today article[9] , actions by RBI due to changed economic situation was highlighted. On September 30, 2022, the Reserve Bank of India (RBI) raised the policy repo rate by 50 basis points to 5.9% at its most recent monetary policy committee (MPC) meeting. As they announced the Governor , Mr Shaktikanta Das stated that the MPC feels that ongoing rising inflation will negatively impact monetary policy. Further controlled removal of monetary accommodation is necessary to restrain the price pressures to spread, inflation expectations to be anchored, and the second-round to be contained effects.

With an increase in the economic indicators compared to pre-Covid levels, the Indian economy is exhibiting strong signs of recovery from the havoc created by the pandemic. Since the first COVID-19 instance was reported in India in January 2020, high- frequency indicators (HFIs) have been watched to determine how the country's economy is faring. According to the most recent data as reported in an article[10] " Indian economy shows strong signs of recovery, upswing in 19 of 22 economic indicators" , gave a most promising scenario wherein 19 out of 22 HFIs have fully recovered, as their most recent levels in the months of September, October, and November of this year are greater than their pre-pandemic levels in the corresponding months of 2019, according to official sources. This was a very pleasing situation for most economists of India.

There are some indicators among the 19 HFIs that show recovery that is far beyond 100%, such as e-way bill by volume, merchandise exports, coal production, and rail freight traffic, which suggests that not only is the recovery complete but that the economic growth is now accelerating above pre-pandemic levels of output. This is further supported by the recently disclosed estimate of GDP for Q2 (July–September) of 2021–22, whose year–on–year increase in real terms is 8.4% and raises the output level above Q2 output in 2019–20's pre–pandemic level. While Electronic Toll Collection (ETC) volumes are nearly four times higher at Rs 421.9 crores, compared to pre-Covid levels of 2019, at Rs 108.2 crores in October 2019.

At USD 55.4 billion in October 2022 , merchandise imports are 14% more than they were in 2019. In October, the number of E-way bills issued more than doubled to 7.4 crore. In September, coal production increased by 131% to 114.1 million tonnes, and rail freight traffic increased by 125%. They claimed that pre-Covid levels were exceeded in the following areas: fertiliser sales, electricity consumption, tractor sales, cement production, port cargo traffic, fuel consumption, air cargo, IIP, and the eight vital industries. Only the consumption of steel, which was 91% of October 2019 levels, domestic auto sales, which were 86% of pre-Covid levels, and air passenger traffic, which was 66% of October 2019 levels, have yet to reach pre-pandemic levels.

After looking at a holistic view of the Global economy and the Indian economy in particular, It looks very promising that Indian economy is going to be the least impacted compared to toehr developing countries though the Global recession seems to be a certainty in 2023 . Of course time will tell us the exact situation of the Global economy in 2023 and the degree of its impact on Indian economy.

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EMOTIONAL INTELLIGENCE FOR TEACHER EDUCATORS

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ABSTRACT
Understanding self, managing emotions, character development and respect for others are the foundations of a progressive and healthy society whereas there are multiple instances of being self-centred, violence and out of control emotions hamper the peace and harmony in the life of people. To mitigate the negative aspects emerging from uncontrolled emotions, children from their early age need to be taught the ability to read emotions in others, to value others' needs, to care for fellow human beings, to show compassion and to exercise self-restraint. These are qualities that possess proven benefits and are relevant to and appreciated in all human societies. An individual who has control over impulse of emotions will be able to take another person's perspective, leading to tolerance and acceptance of differences. This can lead to the development of a community wherein people live together in mutual respect and peace. Working on the emotions for positive gain, and encouraging emotional growth of children in classroom has become more crucial in the present scenario. For helping students to acquire the skills of emotional competencies, teachers need to be trained in Emotional Intelligence, in the first place to manage their own emotions and those of others. Emotional Intelligence is as relevant for teacher educators as it is for the teachers and learners.

Keywords: *Emotional Intelligence, Teacher Educators, Positive Learning Environment, Emotions, Self-Awareness*

INTRODUCTION:
In recent years, the concepts of emotions, emotional intelligence and managing emotions in the workplace have gained a lot of attention in the education sector. The teachers and learners are human beings with their own needs, requirements, desires and variety of motivations. Salovey and Mayer, first used the term "Emotional Intelligence' in 1990 they described it as 'a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's own thinking and action'.

Emotional Intelligence or EI is the ability to understand and manage your own emotions, and those of the people around you. People with a high degree of emotional intelligence know what they are feeling, what their emotions mean, and how these emotions can affect other people. Goleman (1998) believes that emotional intelligence appears to be an important set of psychological abilities that relate to life success. It is empathy and communication skills as well as social and leadership skills that will be central to our success in life and personal relationships, rather than high Intelligence Quotient.

CONCEPT OF EMOTIONAL INTELLIGENCE:
Charles Darwin was the first to recognize the value of emotions. He noted that the emotional system energizes behaviour needed to stay alive. Emotions cannot be stopped; they happen instinctually and immediately in response to situations and people. It is important to understand the term emotion, which is involved in the concept Emotional Intelligence.

Emotion: Emotions can be experienced in three phases, cognitive, affective and conative. Cognitive refers to the knowing aspect, affective refers to the feeling aspect and conative refers to the striving aspect. We understand, we feel and we act. In an emotional state, the central aspect dominates and it is highly pronounced.

Emotions are indispensable to our behaviour. Our behaviour is directed by our emotions. Whatever our mind is thinking, whatever our heart and body is feeling is reflected through our behaviour or actions. Emotions are responses to stimuli or situations that affect a person strongly. It can be beneficial or harmful depending upon its nature and intensity.

Woodworth (1945), Emotion is a moved or stirred up state of feeling that is the way it appears to the individual himself. It is a disturbed muscular and glandular activity that is the way it appears to an external observer."

Robert Plutchik considerd that all human beings experience basic eight emotions and other emotions are the outcome of combination of these basic emotions.

These eight basic emotions are:

(i) Disgust - Feeling that something is wrong

(ii) Surprise - Being unprepared for something

(iii) Trust - A positive emotion

(iv) Anticipation - Looking forward positively

(v) Fear - Feeling afraid

(vi) Anger- feeling angry

(vii) Sadness- feeling sad; sorrow, grief and depression

(viii) Joy- feeling happy; happiness and glad

Emotional Intelligence: Emotional Intelligence is a cluster of abilities or traits relating to the emotional side of life, such as recognising and managing one's own emotions, being able to motivate oneself and restrain one's impulses, recognizing and managing other's emotions and handling interpersonal relationships in an effective manner.

Development of Emotional Intelligence: The conceptual models of emotional intelligence are used to understand one's emotions and to inculcate the qualities for development of emotional intelligence.

Emotional Intelligence Models: The Encyclopaedia of Applied Psychology, Spielberger (2004) states that, there are currently three major conceptual models of emotional intelligence:

1. **The Salovey-Mayer model,** which defines this construct as the ability to perceive, understand, manage, and use emotions to facilitate thinking, measured by an ability-based measure;
2. **The Goleman model,** which views the construct as an array of skills and competencies that drive managerial performance, measured by a multi-ratter assessment; and
3. **The Bar-On model**, which describes a cross section of interrelated emotional and social competencies, skills and facilitators that impact intelligent behaviour, measured by self-report.

Salovey and Mayer: An Ability Model of Emotional Intelligence:
From intelligence theory comes the idea that intelligence involves the capacity to carry out abstract reasoning**.** It proposes that Emotional Intelligence is comprised of two areas: experiential (ability to perceive, respond, and manipulate emotional information without necessarily understanding it) and strategic (ability to understand and manage emotions without necessarily perceiving feelings well or fully experiencing them). Each area is further divided into two branches that range from basic psychological processes to more complex processes integrating emotion and cognition.

Goleman's EI Performance Model (Faltas, 2017):
According to Goleman, EI is a cluster of skills and competencies, which are focused on four capabilities: self-awareness, self-management, relationship management, and social awareness. Goleman argues that these four capabilities form the basis of 12 'subscales' of EI.

He suggests that these subscales are:

- Emotional self-awareness
- Emotional self-control
- Adaptability
- Achievement orientation
- Positive outlook
- Influence
- Coaching and mentoring
- Empathy
- Conflict management
- Teamwork

- Organizational awareness
- Inspirational leadership

Goleman developed these 12 subscales from research into EI in the workforce.

Components of Emotional Intelligence:
A person's potentials for learning or practicing skills are based on the five elements of Emotional Intelligence. Emotional competence determines how much of that potential have been translated into the real-life situations. Along with cognitive elements, all the emotional competencies involve some degree of skill in the realm of feeling.

Goleman (1995) has identified five characteristics of persons with high EI. They are:

(i) Self-Awareness

(ii) Self-Regulation

(iii) Motivation

(iv) Empathy; and

(v) Social Skills

(i) Self-awareness – Which is very similar to Mayer and Salovey's Perceiving Emotions skill, concerns awareness of one's own feelings, and encompasses an appreciation of how those feelings can affect those around us.

(ii) **Self-regulation –** concerns managing one's own emotions and predicting their effects, in a similar way to Facilitating Thought and Managing Emotions.

(iii) **Motivation –** this cover continuing on when encountering obstacles.

(iv) **Empathy –** which relates to detecting others' emotions.

(v) **Social skills –** a set of Emotional Intelligence social skills that help us manage our interpersonal relationships and elicit certain reactions from them.

Bar-On Mixed Model of Emotional Intelligence (Bar-On):
Reuven Bar-On developed one of the first measures of Emotional Intelligence that used the term "Emotion Quotient". Bar-On model of Emotional Intelligence relates to the potential for performance and success, rather than performance or success itself, and is considered process-oriented rather than outcome-oriented (Bar-On, 2002. Bar-On posits that Emotional Intelligence develops over time and that it can be improved through training, programming, and therapy (Bar-On, 2002).

Bar-On EI Competencies Model (Faltas, 2017):

Bar-On put forward the suggestion that EI is a system of interconnected behaviour that arises from emotional and social competencies. He argues that these competencies have an influence on performance and behaviour. Bar-On model of EI consists of five scales: self-perception, self-expression, interpersonal, decision-making, and stress management.

Bar-On also proposed 15 subscales of the EI concept:

- Self-regard,
- Self-actualization,
- Emotional self-awareness,
- Emotional expression,
- Assertiveness,
- Independence,
- Interpersonal relationships
- Empathy,
- Social responsibility,

- Problem-solving,
- Reality testing,
- Impulse control,
- Flexibility,
- Stress tolerance and
- Optimism.

Practical aspects of developing emotional intelligence for teacher educators:

The most important practical aspect for the teacher educators to develop emotional intelligence in the teacher-learner relationship is to create a healthy connection with the learners. This can be done by being attentive to their behaviour, interests, likes and dislikes. Appreciating the uniqueness of each learner, being interested in students as people/future leaders and finding opportunities for learners to succeed are other important perspectives for teacher educators. A good level of student connectedness results in better academic performance, lower incidents of fighting, bullying or vandalism, improved school completion rates, high level of student motivation and good classroom management. Students who feel connected are less likely to exhibit disruptive behaviour, school violence, substance and tobacco use and emotional distress.

Teachers must keep certain objectives in mind while imparting education:

Safe: The learning environment should be free from comparisons to others, abuse/misuse, manipulation, humiliation, and invalidation. Children should feel secure and relaxed.

Respectful: Feelings and uniqueness should be respected.

Supportive: The individuality, needs and talents of children should be recognised and supported. Children should be made flexible to face the changes and challenges in a co-operative manner.

Purposeful: Transferable life skills should be taught, which can be appropriate for life outside school as well.

Empathetic: Children and educators should care for each other’s feelings.

Stimulating: The environment and information should stimulate and encourage children’s natural curiosity and desire to learn.

CONCLUSION

Emotional Intelligence plays an important role in the field of education especially with teachers, students and their academic achievements. Psychological factors which necessitate to include the emotional competencies among the students and teachers need to be understood and implemented. Developing Emotional intelligence is important to create a positive learning environment.

In the context of teachers and learners, development of Emotional Quotient/Intelligence should be made a part of the overall curriculum and integrated into all areas such as classroom and playground.

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ASSESSMENT OF OCCUPATIONAL SAFETY AND HEALTH RISKS USING HIRARC AND SAFETY POLICY METHOD ON ORANSBARI – MAMEH ROAD PRESERVATION IN MANOKWARI REGENCY

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ABSTRACT
Oransbari – Mameh Road Preservation on the Maruni – Mameh road, Manokwari Regency. Various risks can arise at every stage of construction, especially during implementation and operation, become risks for the owner, the surrounding community road users. This research aims to be information and knowledge development in the field of OHS control in construction projects, for companies to formulate the application of an OHS management system in terms of OHS control, for the construction world to get information about OHS control in construction projects so that they can formulate policies in implementing the Management system. K3 on the project. This study uses qualitative research (mix method) with descriptive research type, carried out by conducting direct research on the Oransbari - Mameh Road Preservation Work in Manokwari Regency, namely by direct observation of the environment under study to determine potential hazards, and interviews by conducting questions and answers with parties involved. parties related to research such as supervisory consultants, workers contractor management parties. This study uses the HIRARC method. The results of this study identified as many as 75 potential hazard findings which were then classified based on the source into 22 sources of hazard and 1 identification of Extreme hazard potential accidents, namely Hazards due to slopes of landslide excavation in ordinary excavation work.

Keywords: Hirarc, Safety Policy, OHS

1 INTRODUCTION

Oransbari – Mameh Road Preservation is located on the Maruni – Mameh road, Manokwari Regency. Topography in the project area in general and overall can be represented by forest areas, mountains, plantations, community settlements. Preservation on the Manokwari Regency - South Manokwari Regency, Papua Province has a goal to increase the comfort of road users in the area and to explore the potential of existing natural resources to the fullest which in itself will improve welfare, quality of life, quality of education, health, economy and society in society.

Long Segment is the handling of road preservation within the limits of one continuous segment length (can be more than one segment) which is carried out uniform road conditions, namely steady and standard roads (Minister of Public Works Regulation Number.19 / PRT / M / 2011). Construction work is one of the fields that has the greatest risk compared to other industries. This is because the work carried out is quite complex and requires high expertise.

Various risks can arise at every stage of construction, especially during implementation and operation, so that they can become risks for the owner, implementer, the surrounding community, and road users. Based on this background, research on OHS Risk Assessment with the HIRARC Method and Safety Policy was conducted on the Oransbari – Mameh Road Preservation, Manokwari Regency. The purpose of this research is to provide information and develop knowledge in the field of OHS control in construction projects, for companies to formulate the application of an OHS management system in terms of OHS control. K3 on the project. One of the solutions in controlling K3 is to arrange administratively, namely making procedures related to K3. The making of this procedure is based on the results of observations about the OHSAS 18001:2007 standard certification, namely the HIRARC method so that it is expected to increase work efficiency and productivity on the project and can reduce the incidence of work accidents on workers.

2 METHODOLOGY

The research location for the OHS Risk Assessment using the HIRARC method and the Safety Policy on the Oransbari – Mameh Road Preservation, Manokwari Regency is located on the road linking Oransbari Km 81+696 and Mameh Km 174+819. To reach the research location, the distance taken is 81 km from Manokwari City, West Papua Province.

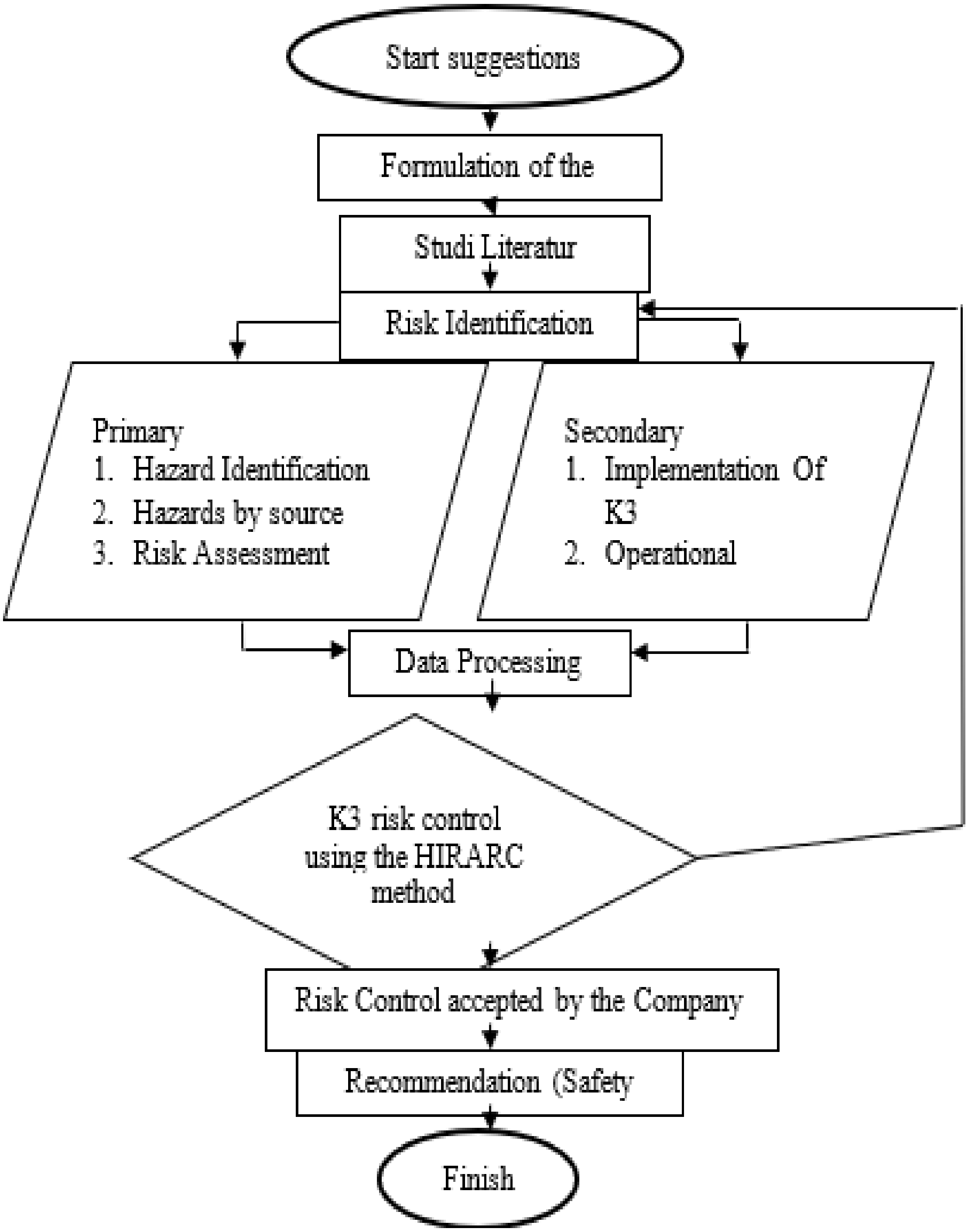

Figure 1. Flowchart of Research

This research uses qualitative research (mix method) with descriptive research type. The data obtained are based on field data, interviews with workers and consultants related to the Oransbari – Mameh Road Preservation Work in Manokwari Regency. How to collect data using primary data is data that is obtained directly, including by conducting direct research on the Oransbari - Mameh Road Preservation Work in Manokwari Regency, namely by direct observation of the environment under study to determine potential hazards, and interviews by conducting questions and answers with parties related to research such as supervisory consultants, workers and contractor management. Secondary data were obtained from literature studies related to the problem under study.

Risk Assessment to determine the level of danger of the work. Performing a risk assessment includes determining the probability of a risk occurring (likelihood) and determining the severity of the risk turns into a work accident (severity). The determination of likelihood and severity is done by means of interviews (qualitative data) to obtain the likelihood value. The risk rating formula is risk = Likelihood x Severity.

The following is the matrix used for risk assessment using the HIRARC method.

Table 1. Risk Assessment Factors

Factor		Scope	Score
Danger	-	Impossible to cause injury	1
	-	Can cause minor injury	2
	-	Can cause injury requiring first aid	3
	-	Can cause injury requiring first aid	4
	-	Can cause serious injury	5
	-	Life threatening, possible loss of life	6
Probability	-	Most likely it won't happen	1
	-	The possibility is still far	2
	-	The possibility is reasonable	3
	-	The possibilities are open	4
	-	Very likely	5
	-	Almost sure	6
Severity	-	Injuries can be ignored	1
	-	Minor injury	2
	-	Serious injury	3
	-	Layered injuries	4
	-	Single casualty	5
	-	Layered death toll	6

Source: Ridley 2008

Table 2. Qualitative Measures of "likelihood" According to AS/NZS Standard 4360

Level	Criteria	Explanation
5	Almost Certain	Can happen any time
4	Likely	Often
3	Possible	It can happen once in a while
2	Unlikely	rarely
1	Rare	Almost never, very rarely

Source: AS/NZS 4360, 3rd Edition The Australian And New Zeland Standard on Risk Management, Broadleaf Capital International Pty Ltd, NSW Australia

Table 3. Qualitative Measures of Consequence

Level	Criteria	Explanation
1	Insignificant	No injury, little financial loss
2	Minor	Minor injury, moderate financial loss
3	Moderate	Moderate injury, need medical treatment, big financial loss
4	Major	Serious injury > 1-person, big loss, production disruption
5	Catastrophic	Fatal > 1 person, the loss is very large and the impact is very wide, all activities stop

Source: AS/NZS 4360, 3rd Edition The Australian And New Zeland Standard on Risk Management, Broadleaf Capital International Pty Ltd, NSW Australia

Table 4. Qualitative Measures of Probability

Level	Criteria	Explanation
1	Almost Sure	Can happen every one (once a year more often)
2	Very likely	Likely to happen often (happened several times)
3	Possible	Can happen once in a while
4	Less Possible	Likely Rarely
5	Rarely	Almost never/very rarely

Source: AS/NZS 4360, 3rd Edition The Australian And New Zeland Standard on Risk Management, Broadleaf Capital International Pty Ltd, NSW Australia

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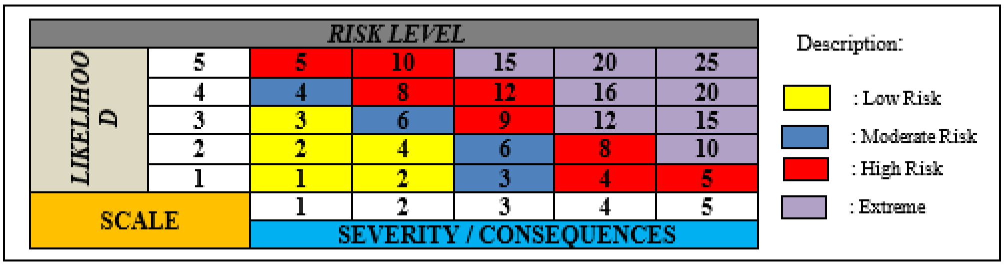

Figure 2. Risk Matriks
Source: UNSW Health and Safety (2008) Risk Management Program

3 RESULT AND DISCUSSION

Hazard Identification (Hazard Identification)

Hazard Identification on the Oransbari – Mameh Road Preservation work in Manokwari Regency, namely the work of masonry with mortar for ditches and waterways, ordinary excavation work, embankment work, road body preparation work, the aggregate layer class A, the aggregate layer work class B, and construction work. Hot Rolled Sheet Wearing Course (HRS-WC) which can be seen in Table 5. Hazard identification.

Table 5. Hazard Identification

Section	Source of Danger	Hazard Identification
Masonry work with mortar for gutters and drains	- Measurement and Benchmarking	- Injured due to conditions and using the wrong meter - Accidents due to poor traffic management - Accidents due to the peg installation method.
	- Excavation	- Accidents hit by digging tools (hoes, pickaxes) due to the distance between the diggers is too close - Danger due to landslide excavation slope
	- Installation	- Wounds from mortar and falling stones - Wounds hit by stone shards - Accidents due to improper placement of stock materials, especially stones.
Ordinary excavation work	- Measurement and Benchmarking	- Injured due to conditions and using the wrong meter - Accidents due to poor traffic management - Accidents due to the wrong type and use of equipment - Accidents due to the peg installation method
	- Excavation	- Accidents hit by digging tools (hoes, pickaxes) due to the distance between the diggers is too close - Danger due to landslide excavation slope - Accidents due to heavy equipment operations both at the site of excavation, transportation and at the disposal site.
	- Disposal of minerals	- Accidents due to piles of minerals that will be used for stockpiling.
Hoarding Work	- Measurement and Benchmarking	- Injured due to conditions and using the wrong meter - Accidents due to poor traffic management - Accidents due to the wrong type and use of equipment - Accidents due to the peg installation method
	- Compression	- Accidents due to poor traffic management - Accidents due to heavy equipment operations at the compaction site - Accidents due to the hoarding method on incline roads.
	- Sprinkling	- Health problems due to dust that arises during watering

Road preparation work	- Measurement and Benchmarking	- Injured due to conditions and using the wrong meter - Accidents due to poor traffic management - Accidents due to the type and use of equipment - Accidents due to the peg installation method
	- Compression	- Accidents due to heavy equipment operations at the compaction site - Accidents due to the hoarding method on incline roads.
	- Sprinkling	- Health problems due to dust that arises during watering.
The Aggregate layer Class A	- Measurement and Benchmarking	- Injured due to improper use of steel meter and does not meet standards - Accident due to being hit by a passing vehicle - Injured when installing stakes and wounds hit by a hammer - There has been a traffic jam.
	- Stripping	- Injured due to improper use of steel meter and does not meet standards - Accident due to being hit by a passing vehicle - Injured when installing stakes and wounds hit by a hammer - There has been a traffic hour.
	- Overlay	- Irritation of the skin and lungs due to dry aggregate dust - An accident occurred when the dump truck was lowering the aggregate - Injured by the grader due to improper operation - An accident occurred due to being hit by a traffic vehicle - An accident occurred due to temporary stockpiling of material before it was spread - Accidents due to unstable soil on the roadside - Traffic disturbance of residents - Injured by work equipment due to the distance between workers being too close.
	- Compression	- There is irritation of the skin and lungs by dust on dry compaction - There is a vehicular traffic jam - There is a traffic disturbance of local residents - Accidents due to unstable roadside soil - Injured due to improper operation of the grader
	- Sprinkling	- An accident occurred in the operation of the sprinkler (Water Tank) - Accident hit by vehicular traffic
	- Old Pavement Surface Cleaning	- Irritation of the skin, eyes, and lungs due to dry dust - Hurt by Compressor while sweeping old pavement - Hearing loss due to noise - There is a disturbance to the vehicular traffic.
	- Spraying	- Hurt by hot asphalt splash - Irritation to eyes, skin and lungs due to steam and heat from asphalt. - Damage to trees, structures or buildings adjacent to the site from asphalt splash - Injured by hot atomizer pipe.
	- Overlay	- Hurt by hot asphalt splash - Irritation to eyes, skin, and lungs due to steam and

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- Hot Rolled Sheet Wearing Course (HRS-WC)		heat from asphalt (Finisher) - Injured by Dump Truck while pouring Hotmix into Finisher.
	- Compression	- Hurt by hot asphalt splash - Irritation to eyes, skin, and lungs due to steam and heat from asphalt - Injured by asphalt compactor machine (Tandem Roller and Pneumatic Tire Roller) - An accident or injury occurs due to the distance between workers too close
	- Sprinkling	- Irritation to eyes, skin, and lungs due to steam and heat from asphalt - Injured by asphalt compactor machine (Tandem Roller) early and late.

Risk Assessment of Every Construction job

The results of field observations found as many as 75 potential hazard findings which were then classified based on the source into 22 sources of danger including Measurement and Pegging, Excavation, Installation, Disposal of Excavated Materials, Compaction, Excavation, Disposal of Excavated Materials, Stripping, Spreading, Cleaning Old Pavement Surfaces, Spraying, Compaction, Watering which can be seen in Table 6. Hazard by source.

Table 6. Hazards by source

Number	Source Hazard	Number of Findings
1	Measuring and Benchmarking Masonry with mortar	3
2	Excavation for masonry with mortar	2
3	Installation of masonry with mortar	3
4	Measurement and Benchmarking in Ordinary Excavation Works	4
5	Excavation in Ordinary Excavation Works	3
6	Disposal of Excavated Materials in Ordinary Excavation Works	1
7	Measurement and Benchmarking on Embankment Works	4
8	Compaction of Embankment Works	3
9	Watering on Backfill Works	1
10	Measuring and Benchmarking on Road Construction Works	4
11	Compaction in Road Preparation Works	2
12	Watering on Road Preparation Works	1
13	Measurement and Benchmarking on The Aggregate layer Class A	4
14	Stripping at The Aggregate layer Class A	8
15	Overlay on The Aggregate layer Class A	8
16	Compaction in The Aggregate layer Class A	5
17	Watering on The Aggregate layer Class A	2
18	Cleaning of Old Pavement Surfaces on Hot Rolled Sheet Wearing Course (HRS-WC)	4
19	Spraying on Hot Rolled Sheet Wearing Course (HRS-WC)	4
20	Overlay on Hot Rolled Sheet Wearing Course (HRS-WC)	3
21	Compaction in Hot Rolled Sheet Wearing Course (HRS-WC)	4
22	Watering on Hot Rolled Sheet Wearing Course (HRS-WC)	2

Table 7. Risk Assessment of the Oransbari – Mameh Road Preservation Work in Manokwari Regency

Section	Source of Danger	Hazard Identification	L	S	L x S	Risk Assessment
Masonry work with mortar for gutters and drains	Measurement and Benchmarking	- Injured due to conditions and using the wrong meter	3	2	6	Currently
		- Accidents due to poor traffic management	3	2	6	Currently
		- Accidents due to the peg installation method.	2	2	4	Low
	Excavation	- Accidents hit by digging tools (hoe, pickaxe, etc.) due to the distance between the diggers is too close	3	2	6	Currently
		- Danger due to landslide excavation slope	4	3	12	High
	Installation	- Wounds from mortar and falling stones	3	2	6	Currently
		- Wounds hit by stone shards	3	2	6	Currently
		- Accidents due to improper placement of stock materials, especially stones.	5	2	10	Currently
Ordinary excavation work	Measurement and Benchmarking	- Injured due to conditions and using the wrong meter	3	2	6	Currently
		- Accidents due to poor traffic management	3	2	6	Currently
		- Accidents due to the wrong type and use of equipment	3	2	6	Currently
		- Accidents due to the peg installation method	3	2	6	Currently
	Excavation	- Accidents hit by digging tools (hoe, pickaxe, etc.) due to the distance between the diggers is too close	3	2	6	Currently
		- Danger due to landslide excavation slope	5	5	25	Extreme
		- Accidents due to heavy equipment operations both at the site of excavation, transportation and at the disposal site.	5	3	15	High
	Disposal of minerals	- Accidents due to piles of minerals that will be used for stockpiling.	5	3	15	High
Hoarding Work	Measurement and Benchmarking	- Injured due to conditions and using the wrong meter	3	2	6	Currently
		- Accidents due to poor traffic management	3	3	9	Currently
		- Accidents due to the wrong type and use of equipment	3	2	6	Currently
		- Accidents due to the peg installation method	3	2	6	Currently

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	Compression	- Accidents due to poor traffic management	3	3	9	Currently
		- Accidents due to heavy equipment operations at the compaction site	5	3	15	High
		- Accidents due to the hoarding method on incline roads.	5	3	15	High
	Sprinkling	- Health problems due to dust that arises during watering.	4	2	8	Currently
Road preparation work	Measurement and Benchmarking	- Injured due to conditions and using the wrong meter	3	2	6	Currently
		- Accidents due to poor traffic management	5	3	15	High
		- Accidents due to the type and use of equipment	3	2	6	Currently
		- Accidents due to the peg installation method	3	2	6	Currently
	Compression	- Accidents due to heavy equipment operations at the compaction site	5	3	15	High
		- Accidents due to the hoarding method on incline roads.	5	3	15	High
	Sprinkling	- Health problems due to dust that arises during watering.	5	2	10	Currently
The Aggregate layer Class A	Measurement and Benchmarking	- Injured due to using the steel meter incorrectly and not meeting the standards	5	2	10	Currently
		- Accidents due to being hit by a passing vehicle	5	3	15	High
		- Injured when installing stakes and wounds hit by a hammer	4	2	8	Currently
		- There is a traffic jam.	5	2	10	Currently
	Stripping	- Accident fell into a dug hole	5	2	10	Currently
		- There is a traffic disturbance of local residents	4	2	8	Currently
		- Accidents occur due to stripping residues due to improper disposal or cleaning of the stripping site	4	2	8	Currently
		- Landslide occurred on the edge	4	2	8	Currently
		- Accidents due to large rocks/trees that hinder stripping	5	2	10	Currently
		- Injured due to improper operation of heavy equipment	5	2	10	Currently
		- There is a vehicular traffic jam	5	2	10	Currently
		- Accidents due to dug holes filled with stagnant water	5	2	10	Currently

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	Overlay	- Irritation of the skin and lungs due to dry aggregate dust - An accident occurred when the dump truck was lowering the aggregate - Injured by the grader due to improper operation - An accident occurred due to being hit by a traffic vehicle	4 4 4 5	2 2 2 2	8 8 8 10	Currently Currently Currently Currently
		- An accident occurred due to temporary stockpiling of material, before it was spread - Accidents due to unstable ground on the roadside - Traffic disturbance of local residents - Injured by work equipment due to the distance between workers is too close.	5 5 4 5	2 2 2 2	10 10 8 10	Currently Currently Currently Currently
	Sprinkling	- An accident occurred in the operation of the sprinkler (Water Tanker) - Accident hit by vehicular traffic	5 5	2 2	10 10	Currently Currently
Hot Rolled Sheet Wearing Course (HRS-WC)	Old Pavement Surface Cleaning	- Irritation of the skin, eyes and lungs due to dry dust - Injured by Compressor while sweeping old pavement - Hearing loss due to noise - There is a disturbance to the vehicular traffic.	5 5 5 5	2 2 2 2	10 10 10 10	Currently Currently Currently Currently
	Spraying	- Hurt by hot asphalt splash - Irritation to eyes, skin, and lungs due to steam and heat from asphalt. - Damage to trees, structures or buildings adjacent to the site from asphalt splash - Injured by hot atomizer pipe.	4 4 4 5	2 2 2 2	8 8 8 10	Currently Currently Currently Currently
	Overlay	- Hurt by hot asphalt splash - Irritation to eyes, skin, and lungs due to steam and heat from asphalt (Finisher) - Injured by Dump Truck while pouring Hotmix into Finisher.	5 5 5	2 2 2	10 10 10	Currently Currently Currently

	Compression	- Hurt by hot asphalt splash - Irritation to eyes, skin lungs due to steam and heat from asphalt - Injured by asphalt compactor machine (Tandem Roller and Pneumatic Tire Roller)	5 5 5	3 2 2	15 10 10	High Currently Currently
		- An accident or injury occurs due to the distance between workers is too close	3	2	6	Currently
	Sprinkling	- Irritation to eyes, skin and lungs due to steam and heat from asphalt - Injured by the asphalt compactor machine (Tandem Roller) at the beginning and at the end.	3 3	2 2	6 6	Currently Currently
		Average value			9	

From the data and sources of hazard activities (Hazard) in Table 7. Risk Assessment of the Oransbari – Mameh Road Preservation work in Manokwari Regency then compiled a risk rating and a hazard source rating. In Rank 1 (first) found 1 Extreme hazard, namely the danger of landslide excavation slopes on the excavation of ordinary excavation work, Rank 2 (second) found the 10 highest hazard identifications, namely the hazard due to slopes of landslide excavation in the excavation of masonry work with mortar to sewers and waterways, Accidents due to heavy equipment operations both at the site of excavation, transportation and at the disposal site during excavation of ordinary Excavation Works, Accidents due to piles of excavated materials to be used for stockpiling in the Disposal of excavated materials in ordinary Excavation Works, Accidents due to operations heavy equipment at the location of compaction in the Compaction of Embankment Work, Accidents due to the method of stockpiling on the incline on the Compaction of the Embankment Work, Accidents due to poor traffic management in Measuring and Fixing the Work of Road Body Preparation, Accidents due to heavy equipment operations at the site location compaction in road preparation work, accidents due to the method of hoarding on the road uphill on road preparation work, accidents due to the method of piling up on the incline on compaction work road body preparation work, accidents due to being hit by a passing vehicle Measurement and benchmarking on the work of Aggregate Foundation Layers Class A, Injured by hot asphalt splash in Hot Rolled Sheet Wearing Course (HRS-WC). Rank 3 (third) is the Medium category, there are 63 hazard identifications and rank 4 (Four) is 1 hazard identification with a low category, namely Accidents due to the measurement and pegging method of laying masonry with mortar for gutters and waterways.

RISK CONTROL MEASURES

Efforts were made to control by considering the hierarchy, namely elimination, substitution, technical, administrative control, and the provision of occupational safety and health equipment, namely by adjusting the completion time of the Preservation work. The Oransbari - Mameh on the Maruni - Mameh road, Manokwari Regency. Improvements to overcome potential hazards caused by sources of danger, namely:

1. Preparation of work instructions installed in the location area, SOPs, use of Personal Protective Equipment (helmets, vests, gloves, masks, and safety shoes), provision of work implementation procedures.

2. Make a worksheet on the use of PPE in the work area, so that workers can read the potential hazards that will be experienced when doing a job and the PPE that must be used to reduce the risk of being exposed to the consequences of potential hazards that may arise when they work.

3. To provide signs, a safety talk briefing must be held.

4 CONCLUSION

1. From the results of the study, 75 potential hazard findings were identified which were then classified based on the source into 22 sources of hazard including Measurement and Benchmarking, Excavation, Installation, Disposal of Excavated Materials, Compaction, Excavation, Disposal of Excavated Materials, Stripping, Spreading, Cleaning of Old Pavement Surfaces, Spraying, Compacting and Watering.

2. From the results of the analysis found 1 identification of extreme hazards potential accidents, namely the danger due to slopes of landslide excavation in the excavation of ordinary excavation work.
3. Of the 75 potential risk variables, risk control can be carried out by:

a) Follow the method of carrying out the work by the procedure
b) Make work instructions installed in the location area, SOPs, use of Personal Protective Equipment (helmets, vests, gloves, masks, and safety shoes), providing work implementation procedures.
c) Make a worksheet on the use of PPE in the work so that workers can read the potential hazards that will be experienced when doing a job and the PPE that must be used to reduce the risk of being exposed to the consequences of potential hazards that may arise when they work.
d) For the provision of signs, a safety talk briefing must be held.

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DEFORMATION BEHAVIOR ON GRADATION OF USED TIRES DUE TO LOAD

Meti
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ABSTRACT

Used tires that are not used in the environment are increasing, the destruction of used tires by burning is quite difficult. Used tires have several physical properties that can be utilized, one of the positive properties of waste rubber is resistance to water, flexibility properties. Used tires also have a bearing capacity and when these tires are filled with granular material, they are pressed, they will interact with the surroundings and cause friction or adhesion, thereby increasing the carrying capacity. The purpose of this study was to determine the deformation behavior of used tires that have been filled with aggregate gradations and compressed. With a load. The design of the coarse aggregate gradation variation has three aggregate gradations in the CBR (unsoaked) test, the highest CBR value in the aggregate variation, which is used the gradation of used tires for the structural element test. Prior to the CBR (unsoaked) test, the physical properties of the coarse aggregate material were tested. The highest CBR test results are gradations of 1"<(15%)<1.5", "<(25%)<1", no.4<(60%)<3/4". The used tires used are R.16 tires without modification. The results of the test of the gradation structural elements of used tires. With applying load 80 kN, the vertical deformation was. While horizontal deformation was 7 mm.

Keywords: CBR, Load

1 INTRODUCTION

Used tires are waste material that is the residual result of a process that cannot be reused, if there is too much waste in the environment it will have an impact on environmental pollution and health for the surrounding community. The positive properties of this waste tire are water resistance, flexibility properties. Tires also have elastic properties that have a bearing capacity [1].

Factors that can affect the ability to withstand the load on it are the nature of the aggregate, gradation, density and carrying capacity which is expressed by the value of CBR (California Bearing Ratio). The CBR value depends on the aggregate grain composition, density and bearing capacity. The composition of aggregate grains consists of several size groups, namely groups of coarse grains, fine grains within a predetermined size limit. The aggregate grains must be distributed according to their respective compositions so that the finer grains will fill the voids between the coarser grains [2].

The amount of length increase or shape changes experienced by each object when stretched, differ

from one object to another depending on the elasticity of the material. A measure of the ability of amaterial to resist changes in shape or bending that occur up to the limit of proportions is called Modulusof elasticity (E). Modulus of elasticity is often called Modulus Young which is the ratio between stress

and axial strain in elastic deformation. Stress is the force distribution per unit area, while the strain is thechange in length per unit of original material length. The higher the modulus of elasticity of the material,the less change in shape that occurs when applied to the force. So that the greater modulus elasticity, thesmaller elastic strain that occurs or rigid. Modulus of elasticity is related to strain, deflection and shapechanges that occur. The amount of deflection is influenced by the size and point of loading, the lengthand size of the cross section and the modulus of elasticity of the material [3].

Deformation occurs when a material experiences a force. During deformation, materials absorb energyas a result of the forces acting along the deformation. No matter how small the force works, the objectwill change shape and size. This change in physical size is called deformation. There are two kinds ofdeformations, namely elastic deformation and plastic deformation. What is meant by elastic deformationis deformation that occurs due to a load that if the load is removed, the material will return to its initial size. While plastic deformation is deformation that is permanent if the load is released, (Edi Jasmani,2001). Increasing load to the material which has experienced its highest strength cannot be done, becausein this condition the material has undergone total deformation. If the load is still given then the strainwill increase where the material seemed to strengthen which is called the strain strengthening (strainhardening) which then the object will break. (Singer danPytel, 1995).Structure is a collection of material elements that can carry loads or loading forces on other elements that are finally safely conveyed to the ground. The loading system in a constructionelements that are finally safely conveyed to the ground. The loading system in a constructioncan be divided into:Direct Load, is a load or load

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that is forwarded directly to soil or other structural elements, and Indirect Load, is a load that passed on directly to the ground or other structural elements [3].

The purpose of this study was to determine the deformation behavior of used tires that have been filled with aggregate gradations and compressed with a load.

2 METHODOLOGY

This research is an experimental research, the research was conducted at the Environmental Geotechnical Laboratory, Hasanuddin University.

There are three aggregate gradations in the design of the CBR (unsoaked) test, gradation 1 of 1”<(15%)<1,5”, ¾”<(25%)<1”, dan no.4<(60%)<3/4”. Gradation 2 of 1”<(20%)<1,5”, ¾”<(30%)<1”, dan no.4<(50%)<3/4”. Gradation 3 of 1”<(25%)<1,5”, ¾”<(35%)<1”, dan no.4<(40%)<3/4.The purpose of the CBR test is to determine bearing capacity of coarse aggregate.

The highest California Bearing Ratio, CBR value in the aggregate variation, which was used the gradation of the used tire filling for the structural element test. Prior to the CBR (unsoaked) test, the physical properties of the coarse aggregate material were tested,as shown in Figure 1.

Figure 1. CBR (unsoaked) testing

Materials used was coarse Aggregate and used Tire R.16, coarse aggregate that has been tested for physical characteristics is put into used tires and crushed until solid and full. The used tires used are used tires R.16, which has a ring thickness of 1.2 cm, a diameter of 66 cm, a tire thickness of 32 cm and has an iron wire on the tire, which serves to increase the strength of the tire, as shown in Figure 2.

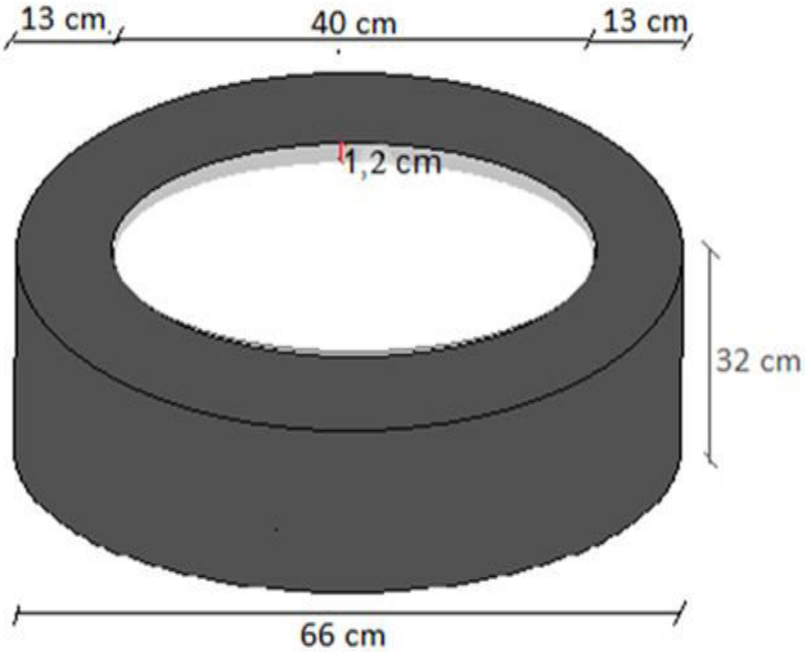

Figure 2. Used Tires

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The test equipment is a laboratory tub, the purpose of the structural element test is for the deformation behavior of used tires that have been filled with aggregate gradations from the selected aggregate variation which has the highest CBR value as shown in Figure 3.

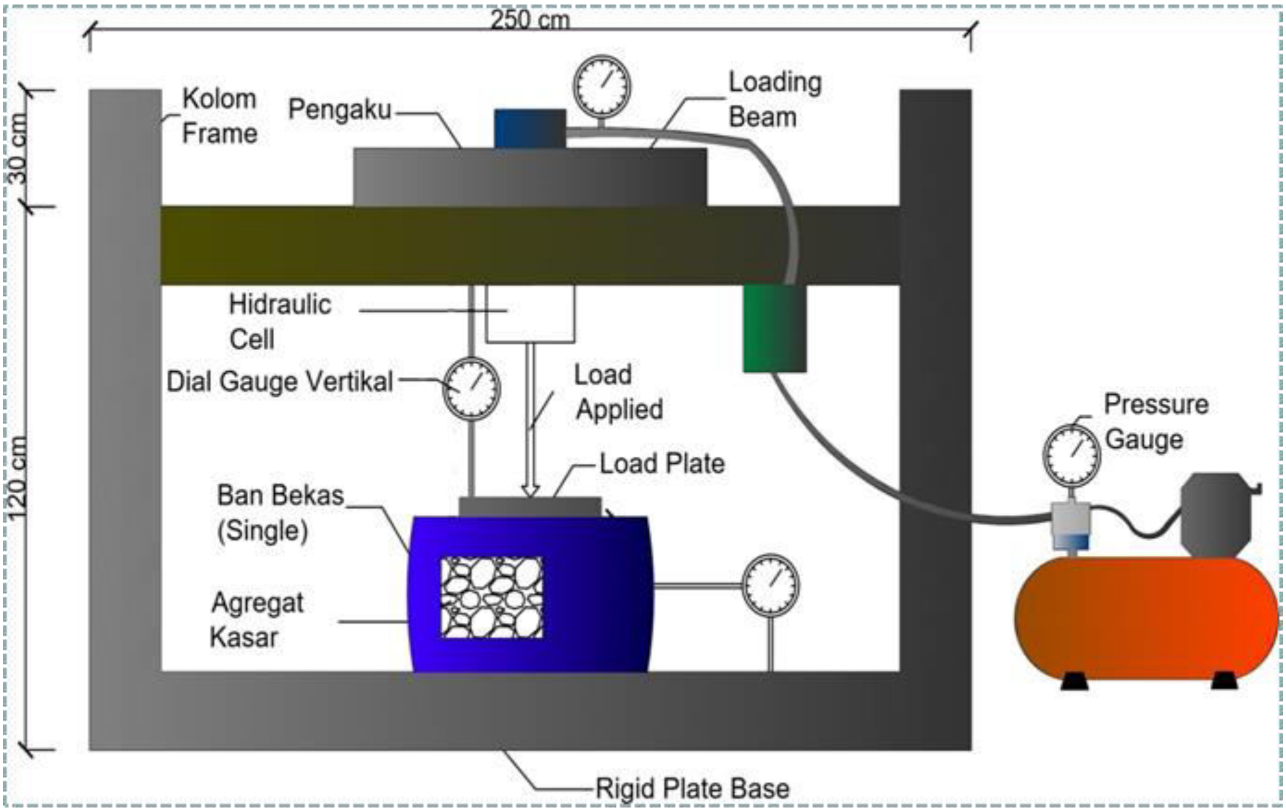

Figure 3. Test Equipment

3 RESULT AND DISCUSSION

3.1 Physical Characteristics of Coarse Agregat

The coarse aggregate used in the study was obtained fromthe production of stone crushers, on Malino Road km. 7 and aggregate (as filler material) of waste tire assemblies. The requirements of aggregate physical in this study were those established by AASHTO (1990). In this study examination of aggregate physical examination results [2].The results of the inspection as shown in Table 1.

Table 1. Aggregate of physical examination [5].

No. Physical Properties of Aggregates	Terms	Check up result
1. Spesific Gravity	> 2,5	2,65 `
2. Saturated surface dry density	> 2,5	2,69
3. Apparent density	> 2,5	2,76
4. Absorption	< 3% berat	1,63 % berat
5. Wear	< 40% berat	23,52 % berat

Compaction Test of the three variations of aggregate gradation of gradation 1 1”<(15%)<1,5”, ¾”<(25%)<1”, dan no.4<(60%)<3/4, Optimum water content(OMC) was 3,31 % and Dry fill weight 1,83 grm/cm^3, gradation 2 of 1”<(20%)<(1,5”), ¾ “<(30%)<(1”) dan no.4 <(50%)<(3/4”) Optimum water content was 3,31 % and Dry fill weight 1,83 grm/cm^3 , and gradation 3 of 1”<(25%)<1,5”, ¾”<(35%)<1” dan no.4< (40%)<(¾”), Optimum water content was 3,31 % and Dry fill weight 1,83 grm/cm^3 , gradation 2 of 1”<(20%)<(1,5”), ¾ “<(30%)<(1”) dan no.4 <(50%)<(3/4”) Optimum water content was 3,31 % and Dry fill weight 1,83grm/cm^3, as shown in Figure 4.

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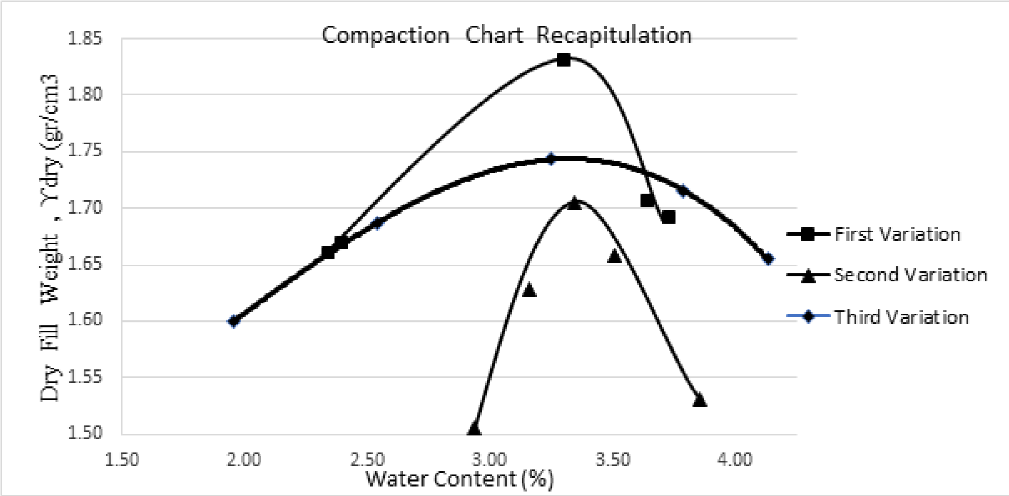

Figure 4. Compaction Test of the three variations of aggregate gradation

3.2 Mechanical Test of Coarse Agregat

Recapitulation of CBR (unsoaked) tests for the three variations of aggregate gradation,gradation 1 of 1”<(15%)<1,5”, ¾”<(25%)<1”, dan no.4<(60%)<3/4 was 38,41 % , gradation 2 of 1”<(20%)<(1,5”), ¾ “<(30%)<(1”) dan no.4 <(50%)<(3/4”) was 30,97%, gradation 3 of 1”<(25%)<1,5”, ¾”<(35%)<1” dan no.4< (40%)<(¾”) was 30,08%, as shown in Figure 5.

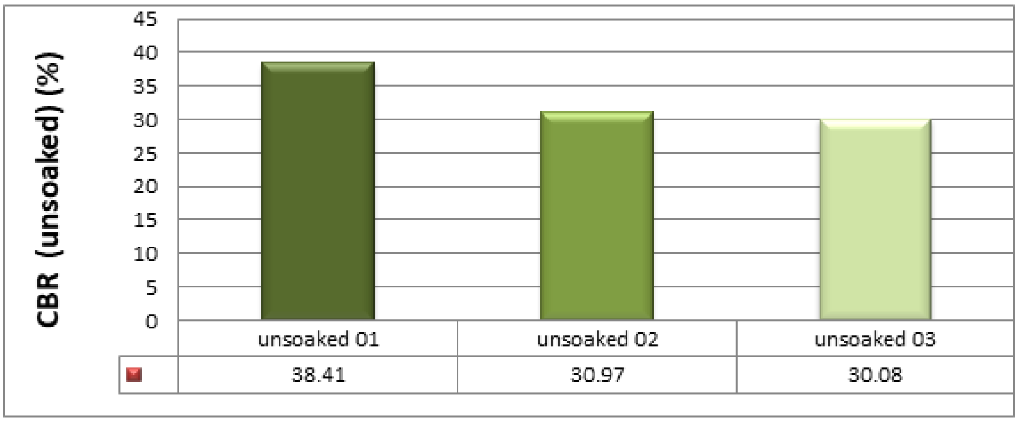

Figure 5. Recapitulation of CBR (unsoaked) test results for Coarse Aggregate

With applying load of 80 kN, spacious base for loads with d was 20 cm, by the following equation :

$$A = \pi r^2 \tag{1}$$

Coefficien of uniformity (Cu) and Coefficien of gradation (Cc), by the following equation :

$$Cu = \frac{D_{60}}{D_{10}} \tag{2}$$

$$Cc = \frac{(D^2{}_{30})}{(D_{10}D_{60})} \tag{3}$$

The results of the deformation behavior test of used tires without modification are shown in Table 2.

Gradation	Cc	Cu	Horizontal	Vertical		Load
			Deformation (mm)	Deformation (mm)	q=P/A (kN/cm²)	P(kN)
1"<(15%)<1,5, 3/4<(25%)<1, no.4<(60%)<3/4”)	1.04	2.67	3	3	0.031847134	10
			5	6	0.063694268	20
			6	7	0.25477707	80

Behavior of vertical deformation and gradation horizontal deformation of gradation 1”<(15%)<1,5”, ¾”<(25%)<1”, no.4<(60%)<3/4”, with a achieved load of 80 kN, the vertical deformation was 7 mm , and the horizontal deformationwas 6 mm, as shown in Figure 6.

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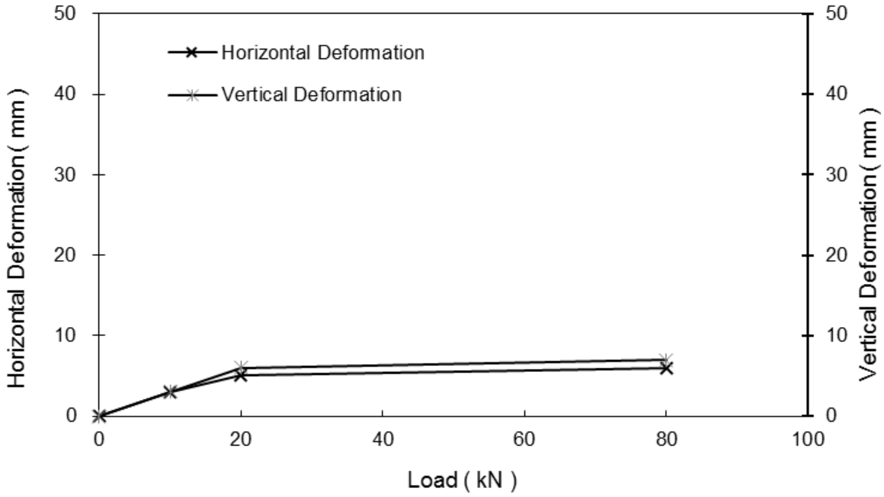

Figure 6. Vertical-Horizontal Deformation of Gradation

References. All references must be in the same format as the ones at the end of this document and the reference list must include all cited literature.

5 CONCLUSION

Granular material element test on modified used tires and unmodified used tire granular material element test, gradation 1”<(15%)<1.5”, ”<(25%)<1”, no.4<(60%)<3/4", if the load is increasing then the vertical deformation will slowly decrease and on used tires without modification the decrease is not to large.

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MULTIPROCESSOR SCHEDULING ANALYSIS

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ABSTRACT

Scheduling occurs when there are many tasks to choose from for the processor. Scheduling problems can be encountered in industries such as a job (task) being processed in the manufacturing industry, a bank customer waiting to be served by a teller, an airplane waiting to land, or a task program to be run on a parallel computer or distributed computer. In making multiprocessor scheduling by considering communication delay, a problem arises which is called the max-min problem. this problem has to do with a trade-off between maximizing parallelism or minimizing communication delay. The aim of this research are to keeps the processor busy (using the processor as much as possible), minimize the overall execution time of the task, minimize task waiting time (amount of time spent waiting in the ready queue), Parallel computer is described as a collection of processors, memories and a communication mechanism. In this study, other components of parallel computers are not discussed. Processor is used to execute tasks from a computer program, memory is used to store data, communication mechanism is used to transfer data between components (processors and memories) of a parallel computer

Keywords: scheduling[1], task[2], Max_Min[3], ready queue[4], parallelism[5]

1 INTRODUCTION

Scheduling problems arise when there are many tasks to choose from for the processor. Scheduling problems can be encountered in industries such as a job (task) being processed in the manufacturing industry, a bank customer waiting to be served by a teller, an airplane waiting to land, or a task program to be run on a parallel computer or distributed computer.

A computer program is a collection of instructions, these instructions include arithmetic instructions, conditional statements, loop statements, and subroutines. It is assumed that the instructions are combined into clusters. The clusters of these instructions will be called tasks. So a program can be described as a collection of tasks that can be run serially or in parallel

In a parallel computer, the tasks to be done are selected based on their priority and processed appropriately by a processor in the parallel computer to get the shortest execution time, this problem is often called the parallel computer scheduling problem.

In parallel computer scheduling which considers communication delay, problems will arise, namely if the number of parallelized processors increases, it means that communication delays between processors in parallel computers will increase. This problem must be trade-off between the benefits of maximizing parallelism and minimizing communication delays

2 METHODOLOGY

In this section, we discuss formal models for data dependency graphs and machine targets, and show how these models are used in scheduling models that describe task execution and message transmission, and the handling time of message receipts.

A parallel task program can be modeled with a data dependency graph or task graph. The scheduler specifies a processor and start time for each task in this task graph. A variation on this standard model is the case of parallel tasks, meaning that tasks require more than one processor to execute.

The criteria discussed so far have focused on the structure of parallel program input. An important description of the execution model, called task preemption, can also be used to classify scheduling algorithms. In preemptive scheduling a task that is executing may be interrupted so that another task may be executed. The interrupted task is restarted at a later stage, possibly on another processor. In the non-preemtive case a task, once started, must run to completion.

2.1 Task Graph

The task graph is used in this study to assume a parallel program division into tasks. The program division problem is intended to find the best grain size to maximize parallelism and reduce communication losses. The problem of program distribution is not discussed in this study

A parallel program can be modeled as a partially ordered set (pose) (T, <) where T is the set of tasks. The relationship u < v indicates that the computation of task v depends on the computational result of task u, or task u must be computed before task v, and the computational result of task u must be known by the processor that will execute task v. The characteristics of a parallel program are defined as a system (T, <, [Di,j] , [Ai]) as follows.

- $T = \{t_i, \ldots, t_n\}$ is the set of executed tasks.
- < is a partial order, defined at T that specifies the preferred operation. So ti < tj indicates that ti must finish before tj can start.
- $[D_{ij}]$ is a matrix n x n from the communication data where $D_{ij} \geq 0$ is the amount of data required for transmission of the task t_i to task t_j, $1 \leq i\ j \leq n$
- $[A_{ij}]$ is a vector of the computational quantities let $A_i > 0$ is the number of instructions needed to execute t_i, $1 \leq i \leq n$.

Partial order < represents a directed acyclic graph which is called an assignment graph. A directed edge (i,j) between two tasks ti and tj indicates that ti must finish processing before tj can start. Figure.1 shows an example of an assignment graph consisting of five nodes (n=5), where each node represents a task. The upper number of a node i represents the task number and the lower number of a node i represents the parameter Ai (the number of computations required by task ti), and the number in the edge (i,j) represents the parameter Dij. For example, A1 = 5, D45 = 3.

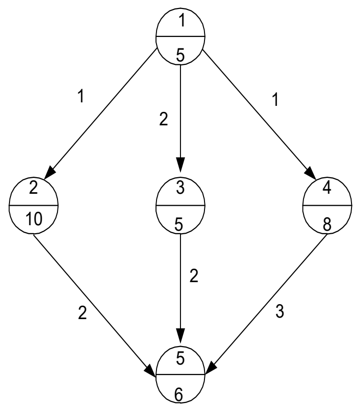

Figure 1. The Task Graph shows the node number, node execution time, and communication delay size.

Characteristics of Task Graph

An important feature or characteristic of a task graph is the Degree of Parallelism (DOP), which describes the amount of work (load) that is performed concurrently. There are two main ways to measure or express DOP: maximum parallelism and average parallelism. Maximum parallelism (DOPmax) is often referred to as the 'maximum width' of the assignment graph and is defined as the size of the longest set of tasks that is not related to the partial order of the DAG. This form is the maximum limit on the number of processors that can be fully used to execute the program represented by the task graph

Average parallelism (DOPavge) in other ways can be searched more easily, the geometric analogy of average parallelism is defined other than the 'area' of the task graph (the total number of computations) divided by the height/length of the longest path from the input node to the output node, which is also called critical path(CP):

$$DOP_{avge} = \frac{\sum_{i=1}^{n} A_i}{\sum_{t_i \in cp} A_i} \ldots\ldots\ldots\ldots\ldots\ldots(1)$$

Another characteristic of task graph is granularity. Sarkar defines program granularity as "average size of a sequential computational unit" that ignores communication. Gerasoulis and Yen measured the grain size of an individual task as the ratio of its local computation and communication, and defined the global granularity of the DAG as the minimum grain size for all tasks. The formulation of a task grain size according to Gerasoulis and Vernugopal is

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$$g(t_x) = \frac{A_x}{\max_j D_{x,j}} \text{..................(2)}$$

2.2. Machine Target

The target machine is assumed to be composed of m heterogeneous processor elements that are connected using a network interconnect. Each processing element can run one task at a time and all tasks can be processed by a single processing element. Formally, the target machine characteristics are described as a system (P, [Pij], [Si], [Ii], [Bi], [Rij]) as follows:

1. $P = \{P_1, \ldots P_m\}$ is a set of processors on a parallel architecture.
2. $[P_{ij}]$ is the interconnect topology matrix m x m
3. S_i, $1 \leq i \leq m$, speed of processor P_i.
4. I_i, $1 \leq i \leq m$, loss of message initialization on processor P_i.
5. B_i, $1 \leq I \leq m$, loss of process initialization on the processor P_i.
6. R_{ij} is the transmission rate of the link between two adjacent processors P_i and P_j

2.3 Scheduling

The execution time of task i on processor x is calculated by:

$$ET(i,x) = \frac{A_i}{s} \text{...(3)}$$

The end time (FT) of a task can be calculated if the start time (ST) is known :

$$FT(i,x) = ST(i,x) + ET(i,x) \text{......................(4)}$$

communication delay between task i and task j on processors x and y :

$$COMM(i,j,x,y) = \frac{D_{i,j}}{r} \times H + CD \text{............(5)}$$

where H is the number of hops on the route between processors x and y and CD is the contention delay. If the tasks are executed on the same process element, the communication delay is zero.

The scheduler maps each task to a processor and a start time. Scheduling can be illustrated as a Gantt Chart, where this Gantt Chart shows the processor allocation and the start and end times of all tasks.

Metrics with the performance of the scheduler is measured by the length of the schedule or makespan which is the maximum end time of a task in the scheduler. Another principle of the heuristic assumption in this discussion is the minimization of the mekaspan size. An alternative to this goal is to maximize a known quantity such as speedup, the ratio of sequential execution time to parallel execution time.

$$speedup = \frac{sequensial\ executiontime}{parallel\ executiontime} = \frac{\sum A_i}{\max_j \{FT(t_j)\}} \text{.........(6)}$$

This ratio only makes sense in the homogeneous case. Other metrics of the scheduler can be measured by efficiency:

$$efficiency = \frac{Speedup}{m} \text{...(7)}$$

The schedule is represented graphically, using a timing diagram called a Gantt chart to illustrate the allocation of parallel program tasks to a target machine's processor and the order in which they are executed. A gantt chart consists of a list of all processors on the target machine and a list of each task allocated to the processor in the order of their execution time, including the start time (ST) and end time (FT) of the task.

Gantt charts provide a formal notation of a schedule in which the start and end times for all tasks can be easily shown. Figure .2. shows a scheduling system where the input is a graph of tasks and machine targets, the schedule output is displayed in the form of a Gantt chart. For example, task 1 starts at time (ST) 0 and ends at time 10, task 4 starts at time 11 and ends at time 31. The shadow area between time 10 and 11 on processor P_2 shows communication delays as a result of sending message from task 2 on P_1 to task 4 on P_2

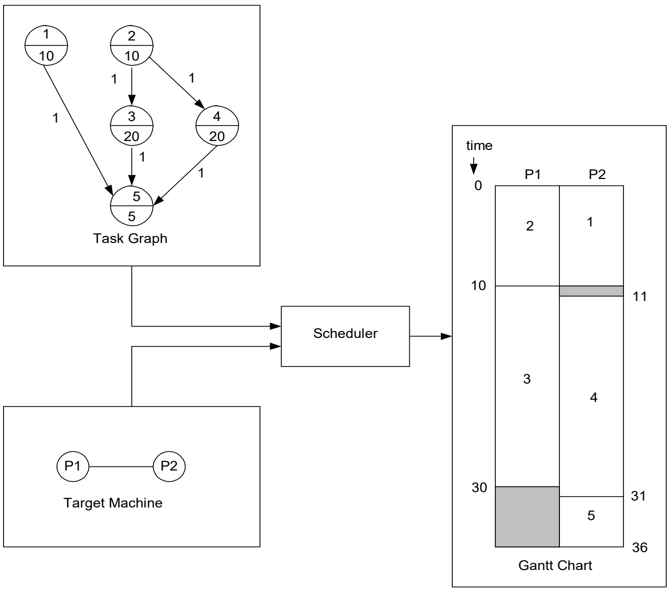

Figure. 2. Scheduling a task graph and target machine topology as input, and a Gantt chart as output.

2.4 Communication

The message ready time (MRT) of a task is the time when all messages for that task have been received by its processor. This time represents the longest communication delay of messages sent from the task's immediate predecessor. The simplest communication model is only the deterministic component of equation. 5. The CD delay delay is assumed to be zero so that communication losses only result from message size, network transmission rate and processor allocation space. The data arrival time of a message is calculated by summing the final predecessor time with the linear deterministic component of the communication loss given in equation 5. The MRT of task t on processor p is calculated by:

$$MRT(t, p) = \max_{j \in PRED(t)} (FT(j) + COMM(j, t, P(j), p)) \ldots\ldots\ldots\ldots\ldots\ldots..(8)$$

where

$$COMM(i, j, x, y) = \begin{cases} 0 & \text{if } x = y \\ D_{i,j} \text{ x } H_{x,y} & \text{other} \end{cases} \ldots\ldots\ldots\ldots(9)$$

2.5 Performance Measure

Now clear the description of the scheduling problem to find the efficiency of the task scheduling algorithm on the available processors to optimize performance measures. There are several performance criteria such as: load balance, minimize completion time. This research will minimize the completion time of a parallel program. This performance measure is known as the length of the schedule or the minimized end time. The scheduling length is described as follows, given an assignment graph G = (T,A) and scheduled on m processors, f, the schedule length f of G is the maximum end time of a task in G. formally, long (f) = t_{max} where t_{max} = maximum $\{t + T_{ij}\}$ where $f(i) = (j,t)\ \forall\ i \in T,\ 1 \leq j \leq m$. T_{ij} is the execution time of the task i on the processor j.

2.6. Insertion Scheduling Heuristic Algorithm

Insertion Scheduling Heuristic (ISH) is an improvement from *general list heuristic*, which tries to assign a ready task to the idle time slot resulting in a communication delay. Improved by modifying the Assign-task routine which not only assigns the selected task to the processor, but also inserts the task into the idle-time slot of the processor in order to minimize the total schedule time. The task to be inserted (hole task) is selected through the ready queue.

Routine Locate_P generates a processor (PL) that can start the execution of the specified task faster and generates the start time of the task that is set to PL, ST. If there is no communication delay, PL equals PRF. Given the communication delay, the processor that executes the immediate predecessor of the specified task must also be considered. The processor specified to execute is the one that can start executing the specified task, the processor is selected based on the PRF and the processor executes the immediate predecessor task. The details of Locate-P are shown as follows:

Locate_P ISH (AN, P_GC, P_L, ST)

Input:

1). AN, assigned task

2). P_GC*, an array of Gantt charts of all processors*

output:

1). P_L, *assigned processor*

2). ST, start time AN on P_L

Begin:

1). *First_Ready_P(P_GC, PRF);*

{ of all processors on the system, compare the ready times on P_GC and find one that is ready faster (PRF)}

2*). Initially,* $P_L = PRF$

3*). If Num_of_immediate_Pred(AN) > 0*

then start_time(AN, PRF, ST, P_GC)

{calculate the AN start time on the PRF where the PRF ready time is greater or the AN message ready time a communication delay from the LIP task }

4). *Let IMP be set of all immediate predecessor task of AN*

5*). For all P such that x is in IMP and x is in P_GC[P]*

{ for all processors executing immediate predecessors AN }

5.1*). start_time(AN, P, STA, P_GC)*

{ calculate start time AN on P }

5.2). *if STA < ST then*

ST = STA;

P_L = P;

The task of the Assign_task routine not only assigns the AN task to the PL in the Gantt chart, but also inserts the task into the idle time slot due to communication delays. Even changing the priority of the task and making the idle time smaller, the task with the highest level or highest priority is set first

With this strategy idle time is utilized by finding all ready tasks from the ready queue that can be inserted into the idle time slot. This task is called the hole task. The search is continued until the idle time slot is selected or until no hole task is found. In detail the Assign-task routine is shown as follows:

Assign_task ISH (AN, ST, P_GC, P_L, RQ)

Input:

1). AN, *assigned task*

2). P_L, *assigned processor*

3). ST, start time AN on P_L

4). P_GC, Gantt chart

5). RQ, ready queue

Output:

P_GC[P_L], Gantt chart P_L

Begin

1). *Idle time slot = ST – Ready_Time*(P_L)

2). *If Idle time slot > 0 then*

2.1) ***repeat***

2.1.1). *Initially, HT, Hole task = task at the top of RQ,*

2.1.2) ***repeat***

start_time (HT, PL, STH, P_GC);

{count STH = start time from HT on PL}

if (STH is in idle time slot)

then begin

FTH = size(HT) + STH; {waktu akhir hole tsk}

If FTH is within the idle time slot

Then HT is the hole task;

End*;*

if HT is not a hole task then HT = Next_task (HT, RQ)

{HT be the next task for HT on RQ}

until *hole task found*

{ look for a hole task that can be assigned between the idle time slots of PL on *ready queue*}

2.1.3). *If hole task is found then*

insert the hole task into P_GC[PL] at time STH;

update-R-queue (HT, RQ, TG);

idle time slot = idle time slot – the STH to FTH time slot;

until *no hole task is found or no more idle time;*

2.2) *insert remain idle time slot into P_GC[PL].*

3). *Insert AN into P_GC[PL] at time ST.*

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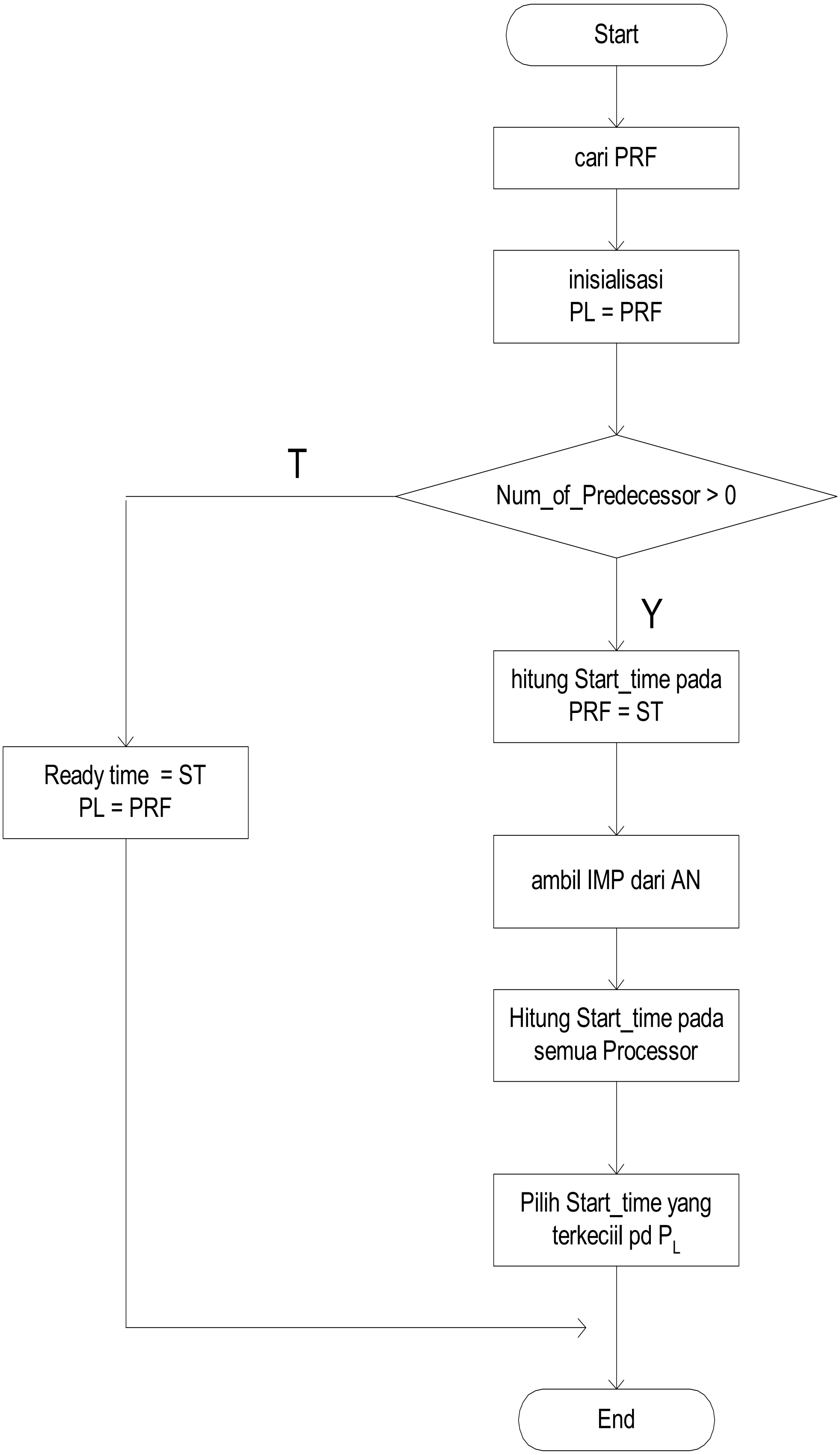
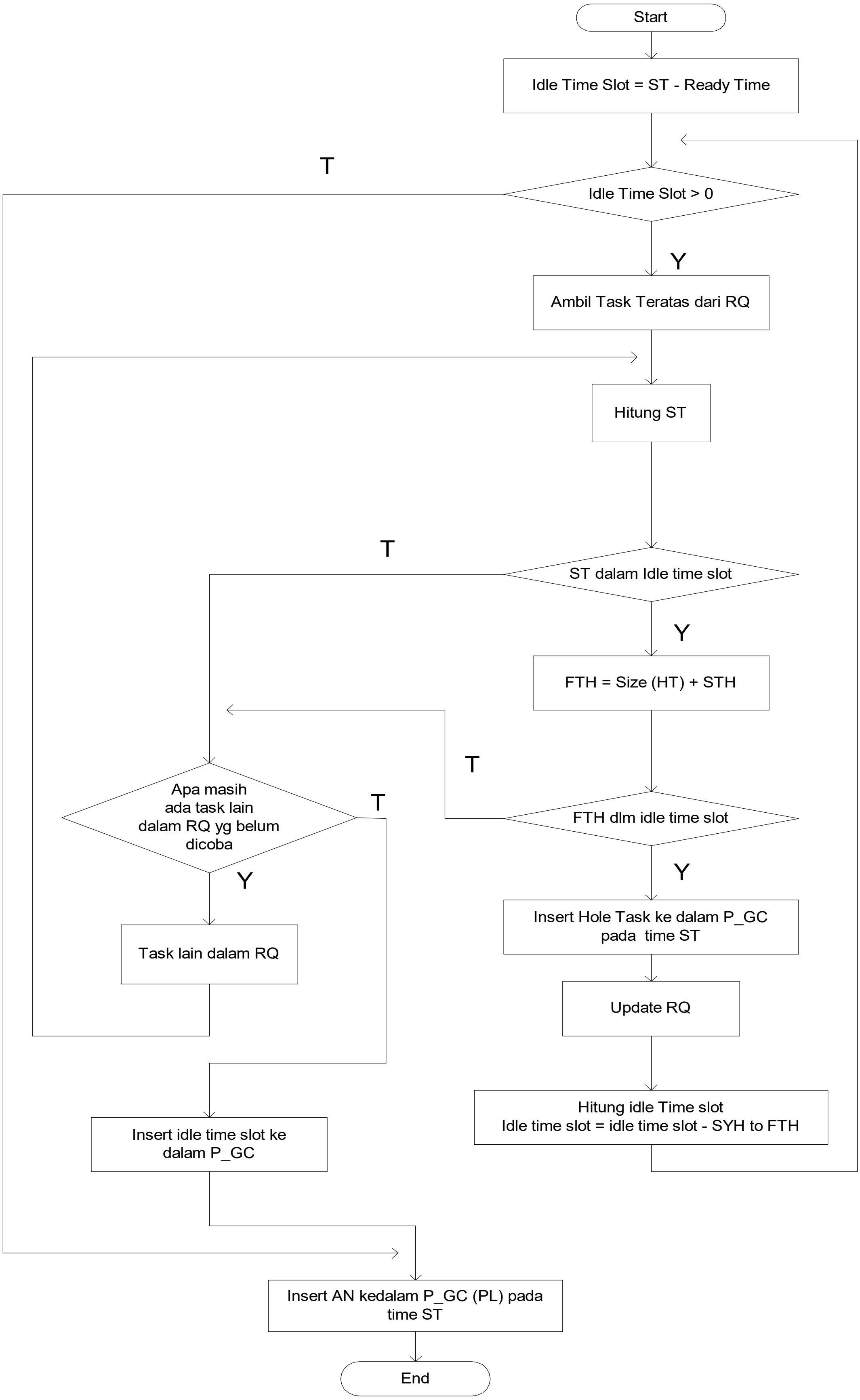
INSERTION SCHEDULING HEURISTIC

Penentuan processor



Assign_Task_ISH



3 RESULT AND DISCUSSION

In measuring the total execution time of this system, it is necessary to have a multiprocessor program model, in this system a task graph is taken which will be scheduled heuristically as follows:

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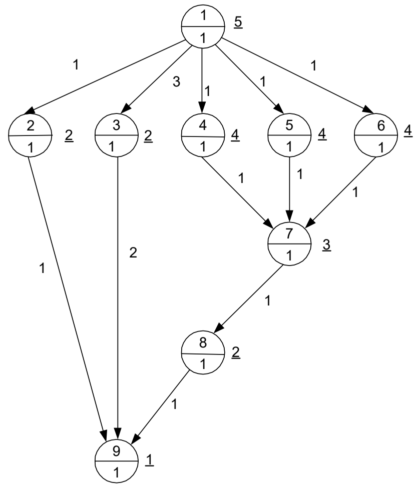

Figure .3. An assignment graph.

Suppose this task graph will be done by three processors. And the level of each node (task) in the graph of the task is as follows.

Tabel.1. Level task of Figure 3.

Tugas	#Pr	Level
1	0	5
2	1	2
3	1	2
4	1	4
5	1	4
6	1	4
7	3	3
8	1	2
9	3	1

Ket: #Pr number of immediate predecessors that have not been executed

Insertion Scheduling Heuristics

Level_Graph (TG), calculates the level of each task in the task graph as shown in Table.1 above. Putting a task that has no predecessor into the ready queue in this case only task 1. Takes the leading task from the ready queue i.e. task 1. Assign_task assigns task 1 to processor 1 with start time (ST1) = 0 and end time (FT1) = 1 .

In unit time 1, the ready queue is updated by adding tasks that have no predecessors to the ready queue i.e. tasks 4, 5, 6, 2, 3. Locate_P returns processor 1 to process task 4 with start time (ST4) = 1. Assign_task sets task 4 to processor 1 with start time (ST4) = 1 and end time (FT4) = 2. Locate_P returns processor 1 to process task 5 with start time (ST5) = 2, processor 2 to process task 6 with start time (ST6) = 2, and processor 3 to process task 2 with start time (ST2) = 2. Then Assign_task assigns task 5 to processor 1 with start time (ST5) = 2 and end time (FT5) = 3, task 6 to processor 2 with start time (ST6) = 2 and end time (FT6) = 3, and task 2 to processor 3 with start time (ST2) = 2 and end time (FT2) = 3.

In unit time 3, the ready queue is updated by adding task 7 and task 3 to the ready queue. Locate_P generates processor 1 to process task 7 with a start time (ST7) 4, so there is idle time between time units 3 – 4. Assign_task tries to assign the hole task to the idle time slot, and finally assigns task 7 to processor 1 with a start time (ST7) = 4 and the end time (FT7) = 5. to determine the hole task sought from the ready queue based on its priority which can be processed in the idle time slot. Task 3 was chosen as the hole task (because it can be processed in an idle time slot) with a start time (ST3) = 3 and an end time (FT3) = 4.

At unit time 5, the ready queue is updated by adding task 8 to the ready queue. Locate_P returns processor 1 to process task 8 with a start time (ST8) = 5. Assign_task assigns task 8 to processor 1 with a start time (ST8) = 5 and an end time (FT8) = 6.

At unit time 6 the ready queue is updated by adding task 9 to the ready queue. Locate_P generates processor 1 to process task 9 with start time (ST9) = 6. Assign_task assigns task 9 to processor 1 with start time (ST9) = 6 and end time (FT9) = 7. The work sequence can be seen in Figure.4 as follows:

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Step 1

	P1	P2	P3
0	1		
1			

Ready Queue

tugas	level
4	4
5	4
6	4
2	2
3	2

Step 2

	P1	P2	P3
0	1		
1	4		
2			

5	4
6	4
2	2
3	2

Step 3

	P1	P2	P3
0	1		
1	4		
2	5	6	2
3			

7	3
3	2

Step 4

	P1	P2	P3
0	1		
1	4		
2	5	6	2
3	3		
4	7		
5			

8	2

Step 5

	P1	P2	P3
0	1		
1	4		
2	5	6	2
3	3		
4	7		
5	8		
6	9		
7			
8			

Total waktu eksekusi = 7 unit time

Figure.4. The order of execution of the task graph in Figure .3 .based on ISH

4 CONCLUTION

1. With identical or variable task sizes, if the communication delay increases, the total execution time will reach saturation faster with the increase in the number of processors.
2. In order for the tasks to be done in order, each task in the task graph is given a priority, and the highest priority is scheduled first.Agar total waktu eksekusi yang lebih cepat dapat dicapai maka delay komunikasi diminimalkan.
3. Scheduling will have the shortest (optimal) execution time if the allocation of a task on a processor is correct.
4. This simulation program can be used as a preliminary design for multiprocessor scheduling

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A STUDY OF EMPLOYEE PROVIDENT FUND SCHEME- AN EFFECTIVE TOOL FOR SOCIAL SECURITY OF PEOPLE

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ABSTRACT
Unorganized workers are in large numbers in the formal sector and the critical concern here is that they are deprived of the various social security benefits. Also, the people in Private Sector lack social security, where organizations can help them through EPFO schemes. EPFO has proved to be one of the very effective tools in addressing the concern of social security of workers since it covers various benefits. In this case, the role of organizations is not just limited to enroll the employees under the scheme but to educate the employees of the various privileges they can avail by enrolling into the same, organizations should also take necessary steps to help people understand the scheme.

This study will focus on the current social security status in India, why the concern of social security needs of the workers especially those employed in the private sector needs to be addressed and how well EPFO schemes are helping people of the private sector to be socially secured.

Keywords: EPFO, organizations, private sector, social security, unorganized

INTRODUCTION
India which is a welfare state has strongly taken initiatives to promote social welfare and has introduced various social assistance schemes for its citizens. The social security laws of our country has gained a strong desire towards social security of the citizens through Directive Principles of the State Policy as stated in the constitution of India. Though social security is not yet a fundamental right, the State is taking continuous efforts to promote the welfare of the people through various social security measures.

What is Social Security?
Social security in the current scenario refers to the protection provided by the State to its citizens through various welfare measures against economic and social suffering which otherwise happens due to no income or reduction in income because of sickness, unemployment, death, disability, retirement, health issues, job injury or maternity etc.

The ILO concept of social security is based on the recognition of the fundamental social right assured by law to all citizens who live from their own labour and who are not able to work and earn either temporarily or permanently due to various reasons which are not in their control.

Why Social Security?
Studies have proved that maximum people are not having the privilege of formal social security protection since they belong to unorganized sector, which is a major concern and thus needs to be taken into consideration.

What is EPFO?
Employee's Provident Fund Organization is a statutory body established under the Ministry of Labour & Employment which includes regulations to ensure social security to the people. It includes three major elements- provident fund, pension & insurance.

Why EPF for Social Security?
With the enactment of Employee's Provident Funds & Miscellaneous Provisions Act, 1952, people can be protected against their various social sufferings, including those working in private sector. Provident fund scheme is one type of retirement benefit other than gratuity. The prime objective of this Act is to provide income security to the people which is negatively affected due to loss of salary or wages due to loss of job or old age, retirement. Under this scheme both employees & employers share the cost of security, which makes it quite attractive.

REVIEW OF LITERATURE
Parkash, Ved (2000), in the study titled Organisation and performance appraisal of Employees Provident Fund Organisation India stated that EPFO India is the largest public sector social security organization considering it's large number of dispersed members, financial transactions. EPFO has been attracting a huge part of household savings and then invests the same in the saving-investment process which further accelerates productivity & economic growth.

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Subair K.A (2018), in the research titled Social security & labour welfare with special reference to head load workers in Kerala mentioned that social security is one part of labour welfare which will protect the economic interest of the workers as well as their families. Workers especially in private sector have the feeling of insecurity, thus social security is a key to solve their distress. This study focused on studying various social security initiatives and privileges provided to headload workers in Kerala.

RESEARCH PROBLEM

People especially those working in Private Sector lack social security and hence are worried about the same. Assuring social security to them is a major concern today because people are constantly stressed about their future income for meeting their retirement needs, disability, unemployment etc. Hence government along with business organizations should take this into consideration and try to meet the social security needs of the people. One of the effective ways of solving this issue is helping the candidates with EPFO benefits, if eligible for the same. Human resource department of the organizations have a crucial role in this.

OBJECTIVES OF THE STUDY

1. To study the current social security status in India
2. To understand the significance of meeting social security needs of the people
3. To analyze the effectiveness of EPFO schemes with special reference to retirement/ death, disability & unemployment.

RESEARCH HYPOTHESES

1. Majority of the working population is worried and greatly affected by their various social sufferings.
2. Employee’s Provident Fund Scheme can be an effective solution for the social sufferings of the people especially those employed in Private Sector.

RESEARCH METHODOLOGY

The study is completely based on secondary data collected from sources such as journals, articles, prior research, relevant books/ periodicals and also from various websites. The sources of the secondary data have been mentioned too.

RESULT AND DISCUSSION

According to a recent study, out of 400 million labor force, only 35 million are in a position to avail social security benefits in the form of old- age income protection in India. And out of these 35 million work force, majority of them of about 26 million labor force are getting benefitted through EPF. This 26 million people includes private sector employees, civil servants, military staff and state public sector undertaking personnel.

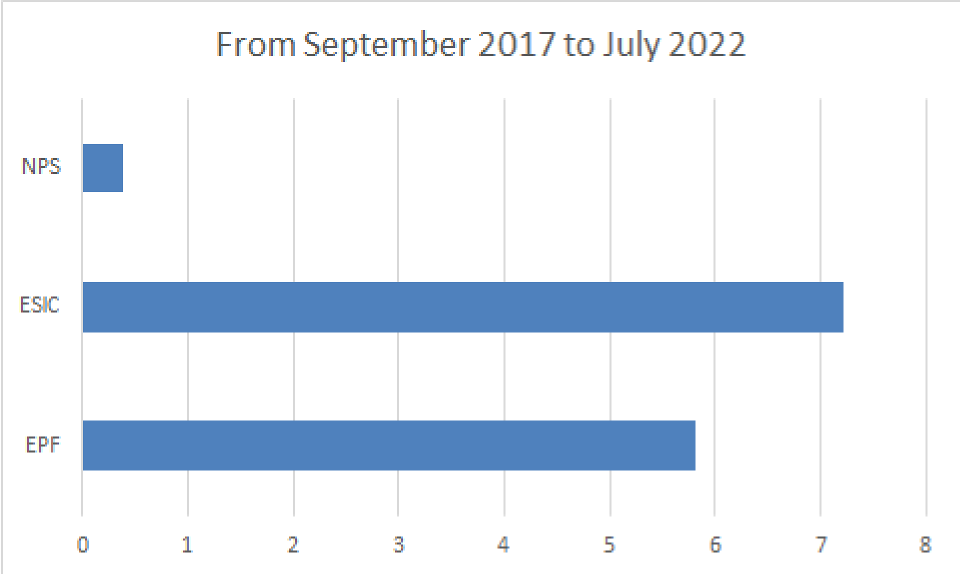
The recent highlights of Payroll Reporting in India: An Employment Perspective- August 2022- released by National Statistic Office is given below:

Net fresh enrolments with retirement fund body EPFO was 16.94 lakh in July 2022.

In the last 5 years commencing from September 2017 to July 2022, gross new enrolment in EPF Scheme was around 5.81 crore.

In the last 5 years commencing from September 2017 to July 2022, gross new enrolment in ESIC Scheme was around 7.22 crore.

In the last 5 years commencing from September 2017 to July 2022, gross new enrolment in the NPS Central, State Government & Corporate, Scheme was around 37.85 lakhs.



As reported by The Economic Times, during pandemic period too EPFO has paid lot of attention to social security needs of the people and taking this into consideration settled 60.88 lakh Covid-19 withdrawal claims & released Rs. 15,255.95 crores to subscribers till 31st January,2021.

Also, EPFO introduced ABRY (Aatmanirbhar Bharat Rojgar Yojana) scheme for further economic development, to create more employment opportunities during post pandemic recovery period, to further provide more social security benefits and also to reinstate the employment loss happened due to pandemic.

CONCLUSION

EPFO schemes have proved to be effective in meeting social security needs of the individuals employed in the Private Sector. This comprehensive scheme has tried to cover the most crucial social security benefits a person looks out for such as pension, provident fund and insurance too. Not just the individual but also the survivor in case of death of the individual can be assured security.

Also, the scheme has made a wide coverage and included many beneficiaries under the scheme. During pandemic phase too EPFO released crores of rupees in order to settle the claims of the beneficiaries and thus can be considered as an effective tool ensuring social security to the people.

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WOMEN EMPOWERMENT THROUGH ENTREPRENEURSHIP- A STUDY IN VISAKHAPATNAM DISTRICT AP

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ABSTRACT
At present, in India, Women make up nearly half of the population. Over the years, we have observing women grow in all fields of the economy. This development is positive and encouraging and it is happening faster than ever before. Entrepreneurship is the main process of social development, which can enable women to participate, in the economic, political and social sustainable development of the economy. Now the empowerment of women has become one of the most important concern of modern era, but practically women facing problems in their enterprises so women empowerment is still an illusion of reality. This paper attempts to analyse the women empowerment through entrepreneurship in Visakhapatnam District, AP. This study is based on both primary and secondary sources, and to assess the role of enterprises in the empowerment of women in terms of economic, social and psychological spheres in Visakhapatnam city, Visakhapatnam District of A.P. The primary data is collected by structured Questionnaire from 100 randomly selected women entrepreneurs in Visakhapatnam District. The secondary sources are collected from Government reports, Magazines, Journals etc. The study results are purely confine to Visakhapatnam city and District only. Impact of certain key empowerment attributes were with respect to decision making, ability to handle financial transactions, communication and development of leadership qualities after the establishment of enterprise is tested with the using of McNemar test. The major findings observed in the study, women are economically, socially and psychologically empowered after starting the enterprises. It is concluded with some suggestions.

Keywords: Women empowerment, Women entrepreneurship, Sustainable development, Illusion

INTRODUCTION
In India, Women occupy nearly half of the population. Over the years, we have observing women grow in all fields of the economy. This indication is positive and encouraging and it is happening faster than before. This paper attempts to analyse the women empowerment through entrepreneurship in the economy. Entrepreneurship is the main process of social development which can enable women to participate in the economic, political and social sustainable development of the economy. Today the empowerment of women has become one of the most important concern of modern century, but practically women facing many problems in their businesses, so women empowerment is still an illusion of reality. Hence, the governments are support, women can easily achieve the empowerment and the economy also empowered at the same time.

Under the Pradhan Mantri MUDRA Yojana, our Government has provided credit to Micro and Small entrepreneurs without the need for collateral or a guarantor. Nearly 75 percent of these loans have been given to women, with 9.81 crore women entrepreneurs already benefitting from them under this scheme. Skill development is another key aspect for raising the potential of our female entrepreneurs. Under Pradhan Mantri Kaushal Vikas Yojana a large number of Indian young women entrepreneurs have taken up industry related skill training and improved their enterprises.

Entrepreneurship development and income generating activities are a feasible solution for empowering women. Micro, Small and Medium enterprises are strengthen women empowerment and removing gender inequalities. The key elements of empowerment have been defined as agency, awareness of gendered power structures, self-esteem and self -confidence. In this context, Indian government introduced many schemes and programmes to promote women entrepreneurship and empowerment of women.

Entrepreneurship a tool of Women Empowerment
Women entrepreneurship development is an essential of human resource development and economic development of the nation. In the words of Former President of India APJ Abdul kalam "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" Women empowerment builds self-reliance and strength in women, preparing them towards acquiring the ability to determine the need of life. Empowerment encourages women for their active involvement in socio-economic and political activities and their contributions to such events as challenging options. Hence, decision making by the women in an empowered state makes them sustainable to face adversity in their lives.

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In recent years, women are encouraged to have an extension of housekeeping to an enterprise. Women started an enterprise to empower themselves to overcome the economic problems and full fill their responsibilities. Since 1970's Indian Government encouraging women participation in small business entrepreneurship.

Scope of the Study: The scope of the study is restricted to Women entrepreneurship for women empowerment in Visakhapatnam District, AP.

Objectives of the Study: To study the impact of entrepreneurship on Women empowerment in Visakhapatnam District, AP. The main objectives of the study are;

1. To know the motivating factors for starting an enterprise
2. To assess the role of enterprises in empowering of women in terms of Economic, Political, psychological spheres and Life skills.
3. To identify the problems faced by the women entrepreneurs in Visakhapatnam District
4. To observe whether the women possess leadership qualities through entrepreneurship for their empowerment.

HYPOTHESIS OF THE STUDY

1. There is no significant difference in the proportion of Women taking household decision their own, before and after starting of an enterprise or business.
2. There is no significant difference in the proportion of women entrepreneurs' ability to handle financial transactions before and after start of an enterprise.
3. There is no significant difference in the proportion of women entrepreneurs' ability to communicate with Government officials before and after starting of an enterprise.
4. There is no significant difference in the proportion of Women possessing leadership qualities before and after start an enterprise.

REVIEW OF LITERATURE

For any developing country, women entrepreneurs assume a huge function in the financial turn of events. Women entrepreneurship is viewed as significant for financial development. Women entrepreneurs produce new openings for themselves and for other people, who give provide them labour. In the early 1980s the United Nations reported that globally women performed two thirds of the world's work, earned one tenths of the world's income and owned one-hundredths of the world'd economic resources (Lavoice, 2000). (Basargekar,2010) in his paper emphasized that stimulating entrepreneurship among women especially from lower socio-economic strata is seen as an effective tool to alleviate poverty, reduce gender bias and empower them by many micro finance institutions ManashiMazumdar(2015) Entrepreneurship plays an eminent role in creating an employment opportunity for rural communities, providing self-employment for those who have started-up a business of their own and enhancing the economic status of the rural sector as well. Now women are also interested to establish their own business as professionally both in the urban and rural areas due to overcome poverty, generate family income and increasing Standard of living**. Dr. K. Ravichandran (2013**) Rural women have to be initiated to step out of home and take responsibilities in the society. Entrepreneurship is considered to be a key for women empowerment especially in rural areas and hence promotion of women entrepreneurs is focused highly by the government. There is a need of continuous attempt to inspire, encourage, motivate and co-operate women entrepreneurs, awareness programs should be conducted on a mass scale with the intention of creating awareness among women about the various areas to conduct business. This paper gives a brief idea about the importance of entrepreneurship and its influence on the empowerment of rural women. Also it throws light on constrains of rural women entrepreneurs with solutions to overcome those. **Thakur & Gupta (2013)** studied on roll of micro entrepreneurship among the rural women. They argued that Micro enterprise is an effective instrument of social and economic development of rural youth. It also helps to generate employment for a number of people and is best tool for rural women as it enables them to add to the family income. Sharma, **Dua & Hatwal (2012)** examined the impact on women empowerment through micro entrepreneurship development and SHGs. They argued that micro finance play a vital role in the success of SHGs. According to **UNDP (1994**) empowerment is a process which enables individuals or groups to change balances of power in social, economic and political relations in society. It refers to many different activities including but not confined to awareness of the societal forces with people and to action, which change power relationships.

METHODOLOGY OF THE STUDY
Methodology is the heart of the study. The total research will success with selection of the method. The selection of method depends on the researcher ability and efficiency.

RESEARCH DESIGN
The study is descriptive in nature pursuing into the assessment of the role of entrepreneurship in the empowerment of women in Visakhapatnam District.

SOURCES OF THE STUDY
The study based on both primary and secondary sources. The **primary sources** were collected from randomly selected respondents, 100 women entrepreneurs through a structured questionnaire. Personal interview method was also used to get additional required information from the respondents through schedules. And the **Secondary sources** are collected from various Government Reports, Journals, Magazines, Articles, Books and websites, etc. Selection of sample in the study;

Table-1 Profiles of the Sample Women Entrepreneurs in the study

Age	% of Respondents	Marital status	% of Respondents	Level of Education	% of Respondents	Previous Occupation	% of Respondents
Below-20	10	Single	17	Illiterate	07	Housewives	29
20-30	22	Married	52	Primary	14	Unemployed	25
30-40	45	Widow	22	Secondary	20	Agriculture	04
40-50	14	Divorce	09	Higher secondary	32	Household business	21
Above 50	11			Inter	15	Small business	14
				Degree	07	Services	07
				PG	05		
Total	100%		100%		100%		100%

Source: Primary data collected through questionnaire.

The above Table-1 is observed that 45 percent of respondents are between 30-40 age group. 52 percent of respondents were married. And 20 percent were completed secondary level of education. 29 percent were housewives.

Table-2 Motivating Factors to Start the Enterprise

S No	Motivating Factor	Number	Percentage
1	Family Encouragement	25	25
2	Interest on Technical know-how	04	04
3	Want to avail government Incentives	22	22
4	Low educational qualifications	17	17
5	Low earnings in the family	15	15
6	Self-earning ambition	08	08
7	To get Social status	02	02
8	Acquire social Recognition	03	03
9	Self-achievement ambition	02	02
10	Desire to do something different	02	02
Total		100	100%

Source: Primary Data

In the above table-2 show that the motivating factors to take up entrepreneurship have been identified and presented. A majority of 25 percent of sample respondents took up entrepreneurship for Family encouragement. While 22 percent sample respondents took up entrepreneurship to avail Government Incentives, 17 percent of sample respondents took up entrepreneurship due low educational qualifications and 15 percent of the respondents took up business activity because of less income of the family.

In this study the perception of micro entrepreneurships were taken regarding decision making ability to take up financial transactions on own, improvement of communication skills with Officials and Leadership skills before and after start enterprise. Along with questionnaire the author interview schedules

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Table-3 Economic Empowerment-Handle Financial Transactions before & after start Entp.

	Handle Financial Transactions Before &After		**Total**	**McNemar Test Significant value**
Handle Financial Transactions	NO	Yes		
NO	32	48	80	0.000*
Yes	0	20	20	
Total	32	68	100	

Source: Primary Data

The above Table-3 depicts that in order to start an enterprise, women need to handle financial transactions on their own. This includes their ability to take care of daily financial transactions and operation of their bank account. The hypothesis that there is no significant difference in the proportion of micro entrepreneur's ability to handle financial transactions before and after start of an enterprise is tested. It is found that there is a significant difference in the proportion of women entrepreneur's ability to handle financial transactions, after start of a small enterprise.

Table-4 Social Empowerment-Communication Skills before & after start entrepreneurship

	Communication Skills before & after start entrepreneurship		**Total**	**McNemar Test Significance value**
Communication Skills before & after start entrepreneurship	NO	Yes		
NO	19	52	71	0.000*
YES	0	29	29	
Total	19	81	100	

Source: Primary Data

Table-4 depicts that the proportion of respondents who participated in household decisions before and after start enterprise. P value indicates that there is a significant difference in the proportion of women before and after start an enterprise. It is also indicate that there is a significant difference in the ability of women to communicate with officials after started of an enterprise,

Table-5 Psychological empowerment – Leadership ability &Skills before & after Entrepreneurship

	Leadership ability &Skills before & after Entrepreneurship		**Total**	**McNemar Test Significance value**
Leadership ability &Skills before & after Entrepreneurship	NO	YES		
NO	18	51	69	0.000*
YES	0	31	31	
Total	18	82	100	

Source: Primary data

Table-5 indicates that the women should possess the leadership qualities and skills to take risk, lead and manage their enterprises. To test if there is any significant difference in the proportion of Visakhapatnam women possessing leadership qualities before and after start an enterprise, a Mc Nemar test was applied. It is found that there is a significant difference in the proportion at 1% level of significance.

Problems face the Women Entrepreneurs in Visakhapatnam District

The entrepreneurship development and empowerment are complementary to each other. Women entrepreneurs find it difficult to raise finance for need of personal securities, as they do not have any properties in their name. Women empowerment depends on taking part in various development activities. . It was also found during the field survey that, women still faced several problems to develop and sustain their business enterprise. Problems such as Education, training, marketing, decision making, leadership skills, communicating skills and required infrastructure facilities etc.

CONCLUSION

The major observations of the study, were women to be empowered with respect to participation in household decisions, ability to handle financial transactions, improvement leadership qualities and ability to communicate

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with officials. Women will empower through entrepreneurship. It was also found during the field survey that, women still faced several problems to develop and sustain their business enterprise. There is a need to support from the Government to Women Entrepreneurs to develop and establish their businesses.

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FACTORS IMPACTING EXPONENTIAL GROWTH OF FINTECH IN INDIA

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ABSTRACT

i) *The research paper focuses on the reasons to find multifold growth of Fintech industry in India vis-a-vis world.*

ii) *The methodology used is a combination of primary and secondary research.*

iii) *Primary data sample has been studied for almost 70+ respondents.*

iv) *Adoption of Fintech in India is the greatest as compared to other countries.*

v) *It has been observed that Fintech growth post 2015 has been fuelled not only by technological advancements but also multiple events affecting the psychology of consumer.*

vi) *It includes demonetization, Covid-19, access to 4G internet along with smart phone usage, reduction in time of transaction due to digital payments etc.*

vii) *Few issues in the use of Fintech have also been discussed.*

viii) *Though the growth of Fintechs in India is phenomenal, they still have a long way to go.*

ix) *Few of them to quote are converting the laggard users, addressing cyber security threats and building profitable business models to service providing companies to avoid sudden collapse.*

x) *These aspects can be further researched for prudence and sustainable strategy for the Fintech industry.*

Keywords –: adoption rate, digital payments, fintech, growth, security.

INTRODUCTION

Financial Technology Companies (FinTech) use technology to cater to financial needs of people and provide financial services. This industry has gone up by leaps and bounds in India after the pandemic of Covid-19 where restrictions were imposed.

Indians turned to online transactions than ever before as lockdown made it impossible to step out.

Technology has played a pivotal role in the creation of different applications.

We can invest in any share of a company or even international company, buy grocery online, do transactions online instead of visiting banks, do shopping on apps within seconds on a single click thanks to fintech.

BACKGROUND

With the advent of technology, financial and non-financial companies started providing their services by imbibing technology into it. Currently, India has been one of the fastest growing sector for fintech just behind China.

Fintech adoption rate is 87% in India as opposed to 64% global average. [1]

Evolution is phased into:

1. Fintech 1.0 (Period of 1960-80) – It marked the period of early transition from analog to digital. This meant to use computer to better manage data.
2. Fintech 2.0 (Prior to 2008) – This is the period where traditional banks offered digital financial services to understand the needs of consumers. It enabled banks to strengthen relationship with customers by offering personalized services.

As traditional banking system consumed time and required lot of paperwork, the need for digital transformation rose to ease tasks and reduce tedious data.

3. Period post 2008 crisis and Covid-19 - In the US, during the 2008 crisis, relationship with consumers went sour. People lost confidence in traditional banks. Hence they turned to tech financial apps.

Post Covid, economy witnessed many changes. In financial sector, there was acceleration in the use of electronic payments, buying online and use of digital technology.

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LITERATURE REVIEW

The Indian market has witnessed massive investments in various sectors adopting FinTech, which has been driven partly by the robust and effective government reforms that are pushing the country towards a digital economy. It has also been aided by the growing internet and smartphone penetration, leading to the adoption of digital technologies and rise of FinTech in the country.[2]

Capitalizing on strong demographics, increasing digital adoption, maturing data ecosystem, and product expansion will help fintech accelerate financial inclusion within the regulatory guardrails.[3]

Fintech start-ups in India have transformed financial habits in general and access to financial products in particular.[4]

As more younger consumers go online, they have been experimenting with alternative payments methods.[5]

However alongwith growth in Fintech apps, there are certain problems consumers can face. [6]

RESEARCH METHODOLOGY

Survey was conducted to analyze the adoption rate of fintech. A detailed questionnaire was sent to 100 respondents and 78 participants responded.

Following questions were included :

1. Do you think fintech apps are necessary in our everyday lives ?

2. Have you moved from cash transactions to digital payments/ UPI transactions/ G pay/ Paytm etc. ?

3. Do you prefer to handle financial transactions online ?

4. Do you think fintechs need to garner attention towards compliance and governance ?

5. What are the issues in fintechapps ?

6. State the reasons for your adoption of fintech ?

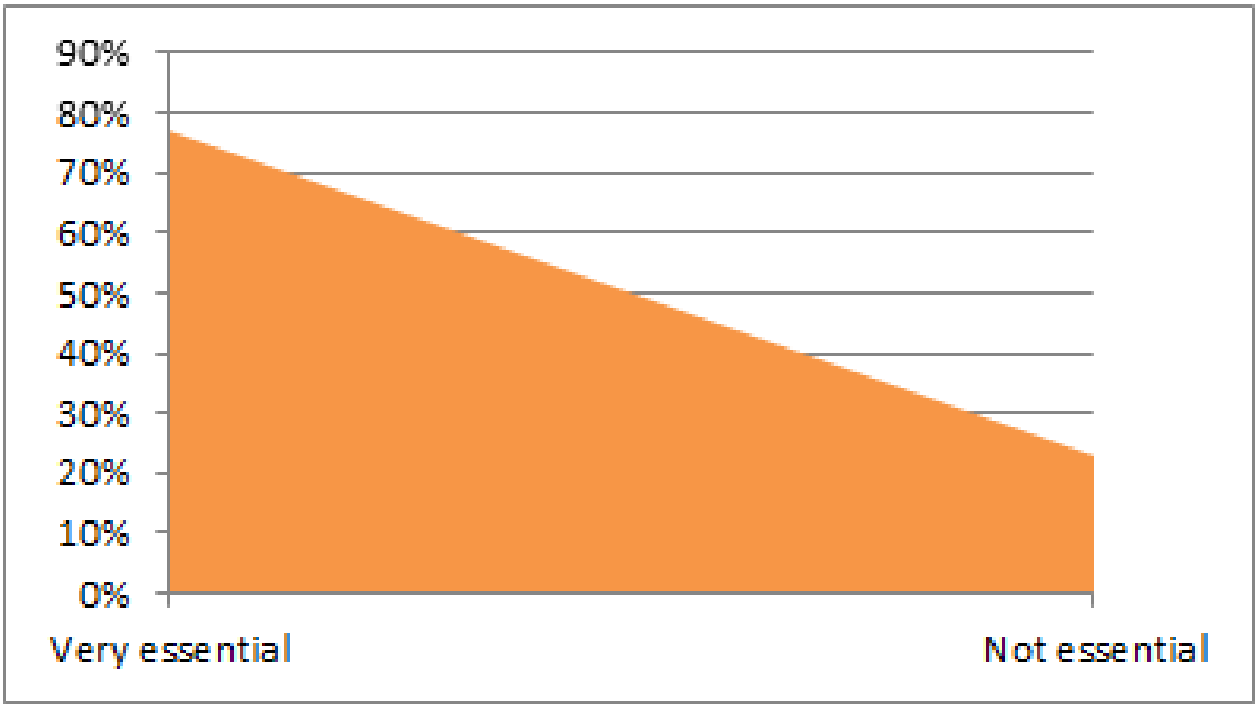
7. Automated technology like robo-advisers, blockchain technology, crowdfunding, peer to peer lending are having an impact on financial services. Are you aware of automated tools of financial services ?

FINDINGS

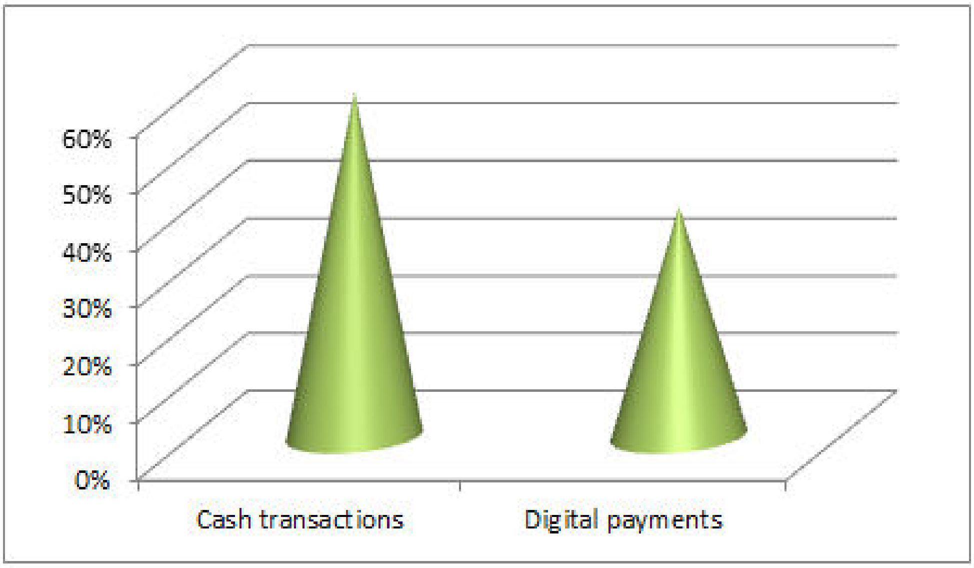
Following are the findings on the basis of data collected.

Charts have been prepared for simplistic understanding.

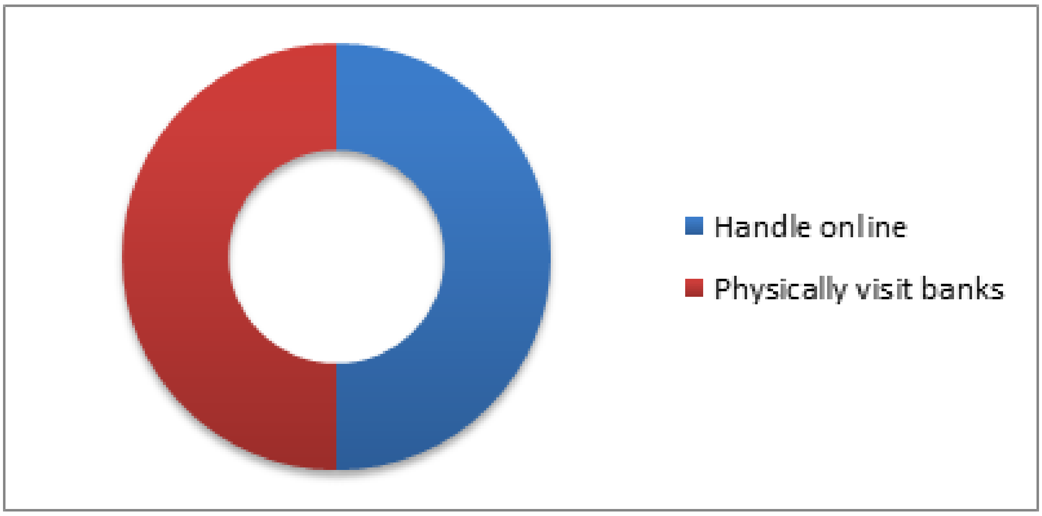
Answer 1. Majority of respondents 77% believe that fintech apps are essential and most of them have reported increased usage of these apps post covid 19.



Answer 2. Around 40% of respondents have moved from cash to digital payments.



Answer 3. 50% of the respondents want to handle their finances online while 50% still have confidence in physical banks.



Answer 4. Most of the respondents stated that compliance should be with respect to data privacy, security compliance, safety in payments etc.

Answer 5. The issues in fintech are security, breach of private information, complex design of apps, collection and misuse of personal data etc.

Answer 6. The reasons stated by respondents for adoption of fintech are ease to use, accessible, transparency, secure, wide access to investment opportunities, affordable to save money through apps than hire a consultant (cost-effective) etc.

Answer 7. Majority of the respondents 59% are not aware of automated tools in financial services.

Robo advisors are automated technology that provides financial services using mathematical algorithms without human intervention.

Blockchain technology records transactions across computers in network. It facilitates transparent sharing of data. Information cannot be deleted or altered. This can transform financial services industry.

Crowdfunding is a financial innovation. It is small amount of money from public to finance business.

Peer to peer lending is financial technology where people can lend or borrow money from one another without use of bank. Peer to peer lending websites connect lenders and borrowers.

Most of the people are not completely aware of these technological innovations in finance services.

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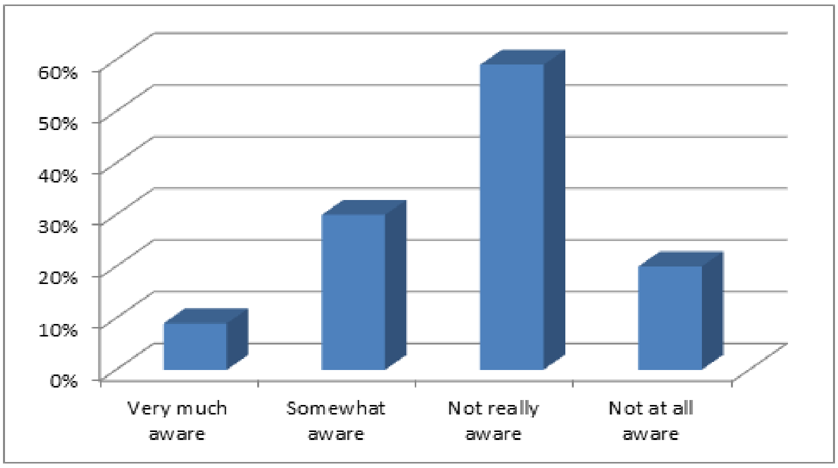

RESEARCH IMPLICATIONS

Reasons for growth of Fintech in India include government initiatives as well as external factors.

Government initiatives like demonetization, Jan DhanYojana, Digital India and Startup India, UPI, introduction of Aadhar and its linkage to banks, rebates in tax and reduction in transaction cost has contributed to rise in Fintech.

Other factors conducive to the growth of fintech in India are Indian demographics (increasing internet usage, predominant use of smart phones), increase in funding from international sources, private institutions, venture capitalists etc.

The BNPL trend is attracting younger consumers – millenials and Gen Z. Buy Now Pay Later is becoming popular because consumers can have access to desired goods or services and pay later on in small installments which are interest free.

Technological advancements (AI, blockchain) and a talented tech pool has the ability to establish India as a leader in Fintech market.

FUTURE SCOPE OF RESEARCH

Further research can be carried out to find strategy for sustainable growth of Fintech. It is predicted that BNPL trend can be a bubble with rising amounts of debt. Hence a careful strategy has to be devised for long term growth of Fintech.

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ROLE OF NON-TIMBER FOREST PRODUCTS (NTFPS) IN LIVELIHOOD AND ECONOMY OF CHHATTISGARH STATE WITH SPECIAL REFERENCE TO RAIPUR DIVISION

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ABSTRACT
The present study attempts to assess the role of Non-timber forest products (NTFPs) in livelihood and economy of Chhattisgarh State with special reference to Raipur Division. For carrying out this study, simple random sampling was used and data was collected from 30 households of Raipur Division. The results of the study revealed that there was a significant association between gender and responses pertaining to the question "What are the major NTFPs collected and/ or sold by your household round the year"? The observed chi-square value pertaining to the question "Do you sell NTFPs"? was not found significant at 0.05 level of significance which indicated that there is a no significant association between gender and responses.

Keywords: Non-Timber Forest Products (NTFPs), Livelihood, Economy, Chhattisgarh State, Raipur Division

INTRODUCTION
NTFP (also known as "smaller forest products" in the national income accounting system) is a food and livelihood resource for communities living in and around forests. They are also known as non-timber, minor, secondary, special, or specialty forest products. Globally, more than 2 billion people live in forests and depend on NTFP for their livelihoods, income and livelihoods. NTFPs are considered important for maintaining rural livelihoods, reducing rural poverty, protecting biodiversity and promoting rural economic growth.

SIGNIFICANCE OF THE STUDY
Forests are associated with socioeconomic and cultural life of people in India. The majority of societies largely occupy the forest areas since time immemorial, living in isolation from the majority life, maintaining harmony and an interdependent relation with nature. These markets are growing rapidly and steadily. Non-timber resources have great potential to promote sustainable rural development, diversified economic growth, cultural resilience and environmental health. NTFPs are used by people because they have less alternative access to food and income. In a country like India, which has more than half of its population in rural areas and a large tribal population reliant on forest produce for their sustenance, NTFPs play a major role **(Sawhney & Engel, 2003)**. At the same time, NTFPs collection should not hamper the environmental objectives such as conservation of forest and biological diversity.

In Chhattisgarh Sal Seed (Shorea robusta), Harra (Terminalia bellirica), Gums of Kullu (Stercalia urens), Tamarind (Tamarindus indica), Chironjee Guthli (Buchanania lanzan), Lac (Kusumi, Rangini) (Karria lacca), and Mahua Seed (Madhuca latifolia) are the major NTFPs.

REVIEW OF THE RELATED LITERATURE
Md. Habibur R., Bishwajit R., Md. Shahidul I. (2021) stated in his research findings that the forest-dependent communities use KNP resources primarily for domestic energy, household income, and housing construction. The results show that NTFP income contributed significantly to family income. Analysis of income data showed that small business owners received a relatively large amount of income from NTFP, followed by tea plantation workers and day laborers. This study showed a significant negative relationship between household distance from the forest and the amount of NTFP collected ($P < 0.01$) and monthly income from NTFP ($P < 0.01$). A positive and significant relationship was found between the amount of NTFP collected and the time spent collecting NTFP ($P < 0.001$), and between monthly income from NTFP and family size ($P < 0.001$). I did. Firewood collectors and farmers collected significantly more NTFP in a single trip than in other professions ($P < 0.001$). Households with moderate to heavy dependence on NTFP collected significantly higher amounts of NTFP on a single trip than households with moderate to low dependence on NTFP ($P < 0.01$). The community's reliance on KNP's resources, the community's assessment of KNP's ecosystem services for the livelihoods of villagers, and the community's deep interest in forest conservation formed the basis for KNP's sustainable management. The findings will help design effective forest management plans and policies for NTFP management and forest conservation with the active participation of forest-dependent people in northeastern Bangladesh.

Dau, J.H., and Elisha, A., (2013) conducted a survey on non-timber forest products in the Bauchi South Senator District of Bauchi, Nigeria. The purpose was to identify the tree species that are widespread in the area, the

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parts of the plant that are used (roots, bark, stems, leaves, fruits, etc.), and how they are used, how they are used, and the final product. The data was collected using a structured questionnaire and supplemented by oral interviews and observations. A total of 300 questionnaires were randomly distributed to the local governments surveyed. All data collected in the study area was subjected to simple descriptive statistics. A total of 58 plant-derived useful species have been recorded and have a variety of uses in the lives of rural residents in the region. As a result, NTFP in the South Senatorial district of Bauchi, Bauchi, has medicine (33.0%), food / fruits (16.0%), oils and spices / seasonings (8.0%), sculptures, crafts and tools (12.8%), Environmental protection / improvement (10.8%), protein / bush meat (7.6%), other uses [lining, tannins, ropes, rubber, utensils, dyes, etc. (11.8%)]. Research has also found that people in the area often collect these resources and sell them as a means of earning a living. Forest policies, including NTFP production, are needed and local agricultural and forestry systems need to be developed within national forests to enable the production of bushmeat, rattan, bamboo, traditional medicine, honey and other forest products.

Hasrat Arjjumend (2005) in his survey on non-timber forest products and tribal livelihoods in northern Chhattisgarh stated that Non-timber forest products (NTFPs) make up the majority of household consumption and family income for the North Buster tribes. The majority of tribal families depend on forests for the supply of NTFP, and their daily lives are mostly interwoven with forests and forest products. The findings showed that of the 29 collected in the sample village, only 16 NTFP items were sold. Of these 16 items, 3 are nationalized and sold only to forest products cooperatives. In the Bastar region, there is a network of village traders who buy NTFPs on the weekly market. About 1,520 traders buy materials at Tata Pani's weekly market. Observations on nationalized NTFP trade, i. H. Tendu sheets, salsame, and harra show that there is considerable abuse in the procurement process and distribution of payments. People are also unaware of their rights related to the nationalized NTFP trade.

Singh J., Singh A., and Vijay Laxmi (2017) conducted a study evaluating non-timber forest products in the Morni and Raipur-Rani mountains of the Sivalik Hills, India. This study addresses the use of plant species as NTFPs and thus the determination of vegetation type ranges in the Sivalik Hills Morni and Rypur-Lani ranges by applying qualitative data analysis. A total of 143 and 105 species that provide non-timber forest products (NTFPs) have been found in the Morni and Raipullani mountains, respectively. Some important NTFP species present in both regions are Aegle marmelos (aromatic, edible, medicine, gum, dye, feed), Arundinella nepalensis (fiber, feed, basket, stool), Butea monosperma (medicine,). Gum, dye, fiber, feed), Ficus benghalensis (medicinal, edible, fiber and feed), Ficus hispida (edible, medicinal, tannin and fiber), Terminalia bellerica (medicinal, gum and tannin), Woodfordia fruticosa (medicinal, gum, Tannins and dyes) and Ziziphus mauritiana (medicines, foods, feeds, tannins). Most species in these areas are medicinal (117), followed by feed (69), edible (53), dietary fiber (37), tannins (32) and aromatic oils (17).

OBJECTIVES OF THE STUDY

1. To study the availability of Non-Timber Forest Products (NTFPs) in Raipur Division of Chhattisgarh State.
2. To study the scope of livelihood based on Non-Timber Forest Products (NTFPs) in Raipur Division of Chhattisgarh State.
3. To study the impact of Non-Timber Forest Products (NTFPs) on economy of Chhattisgarh State with special reference to Raipur Division.

HYPOTHESES OF THE STUDY

1. Availability of Non-Timber Forest Products (NTFPs) in Raipur Division of Chhattisgarh State will be found.
2. Scope of livelihood based on Non-Timber Forest Products (NTFPs) in Raipur Division of Chhattisgarh State will be found.
3. Impact of Non-Timber Forest Products (NTFPs) on economy of Chhattisgarh State with special reference to Raipur Division will be found.

SUBJECTS AND METHODS

The researcher carried out the data collection work in Raipur Division and gathered data with the help of a questionnaire from 30 households.

TOOLS

A questionnaire was prepared by the researcher based on Non-timber forest products (NTFPs) and administered on 30 households of Raipur Division of Chhattisgarh State.

STATISTICAL ANALYSIS

Descriptive statistics was used for data analysis. Descriptive statistics including the frequency, percentages, and bar chart were used to draw the results.

ANALYSIS AND INTERPRETATION

The collected data was analysed statistically by using descriptive statistics. Results are drawn with the help of observed frequency, expected frequency, % within gender and % within responses for both the questions in relation to male and female respondents. The results are further presented with the help of bar charts.

1. What are the major NTFPs collected and/ or sold by your household round the year?

Table – 1 Results showing association between gender and responses (Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika)) in relation to the responses pertaining to the question "What are the major NTFPs collected and/ or sold by your household round the year?

			Responses				Total
			Tendu Leaves (Diosyros melanoxylon)	**Sal Seeds (Shorea robusta)**	**Harra (Terminalia chebula)**	**Mahuha seed (Madhulika indika)**	
Gender	Male	Observed Frequency	5	6	2	2	15
		Expected Frequency	4.0	7.5	1.5	2.0	15.0
		% within Gender	33.3%	40.0%	13.3%	13.3%	100.0%
		% within Responses	62.5%	40.0%	66.7%	50.0%	50.0%
		% of Total	16.7%	20.0%	6.7%	6.7%	50.0%
	Female	Observed Frequency	3	9	1	2	15
		Expected Frequency	4.0	7.5	1.5	2.0	15.0
		% within Gender	20.0%	60.0%	6.7%	13.3%	100.0%
		% within Responses	37.5%	60.0%	33.3%	50.0%	50.0%
		% of Total	10.0%	30.0%	3.3%	6.7%	50.0%
Total		Observed Frequency	8	15	3	4	30
		Expected Frequency	8.0	15.0	3.0	4.0	30.0
		% within Gender	26.7%	50.0%	10.0%	13.3%	100.0%
		% within Responses	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.7%	50.0%	10.0%	13.3%	100.0%

Table - 1 shows association between gender and responses in relation to the response of "What are the major NTFPs collected and/ or sold by your household round the year?" In relation to male respondents, the observed frequency has been found 5, 6, 2 and 2 respectively for Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika). The expected frequency has been found 4.0, 7.5, 1.5 and 2.0 respectively for Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika). Percentage within gender has been found 33.3%, 40.0%, 13.3% and 13.3% respectively for Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika). Percentage within responses has been found 62.5%, 40.0%, 66.7% and 50.0% respectively Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika).

In relation to female respondents, the observed frequency has been found 3, 9, 1 and 2 respectively for Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika). The expected frequency has been found 4.0, 7.5, 1.5 and 2.0 respectively for Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika). Percentage within gender has been found 20.0%, 60.0%, 6.7% and 13.3% respectively for Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika). Percentage within responses has been found 37.5%, 60.0%, 33.3% and 50.0% respectively Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika).

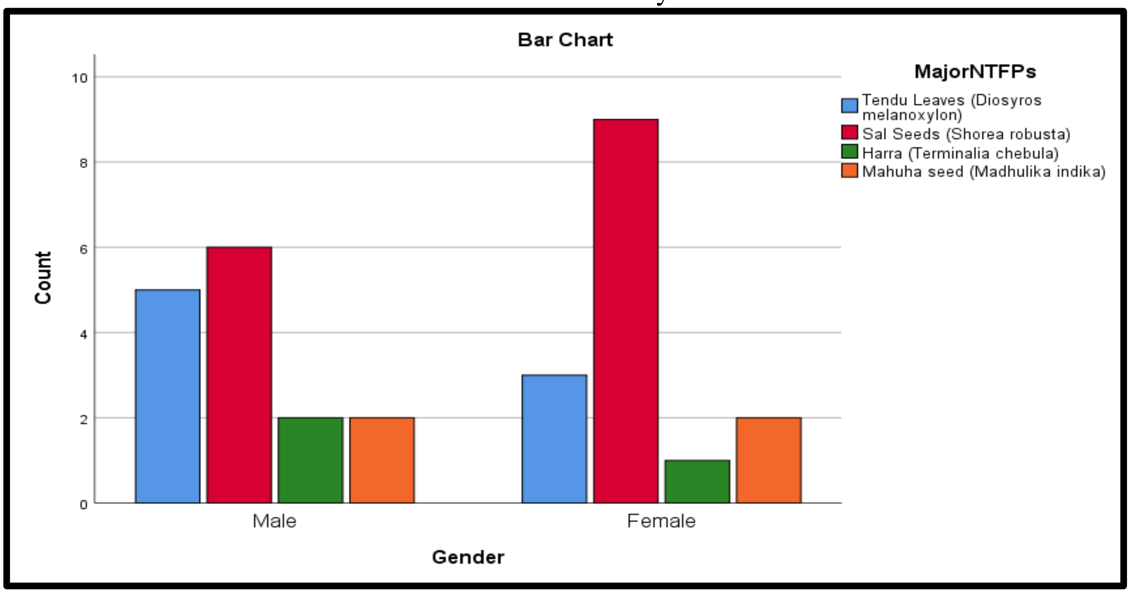
In case of total the observed frequency has been found 8, 15, 3 and 4 respectively for Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika). The expected frequency has been found 8.0, 15.0, 3.0 and 4.0 respectively for Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika). Percentage within gender has been found 26.7%, 50.0%, 10.0% and 13.3% respectively for Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika). Percentage within responses has been found 100%, 100%, 100% and 100% respectively Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika).

Table – 2 Chi-Square Results related to the association between gender and responses (Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika)) in relation to the responses pertaining to the question "What are the major NTFPs collected and/ or sold by your household round the year?

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.433[a]	3	.698
Likelihood Ratio	1.449	3	.694
Linear-by-Linear Association	.036	1	.849
N of Valid Cases	30		
a. 6 cells (75.0%) have expected count less than 5. The minimum expected count is 1.50.			

Table – 2 shows the chi-square results related to the "major NTFPs collected and/ or sold by your household round the year". The observed chi-square value of 1.433 at 3 degree of freedom is found significant at 0.05 level of significance. This proves that there is a significant association between gender and responses (Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika). pertaining to the question "What are the major NTFPs collected and/ or sold by your household round the year"?

Figure – 1 Figure showing the association between gender and responses (Tendu Leaves (Diosyros melanoxylon), Sal Seeds (Shorea robusta), Sal Seeds (Shorea robusta) and Mahuha seed (Madhulika indika)) in relation to the responses pertaining to the question "What are the major NTFPs collected and/ or sold by your household round the year?



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2. Do you sell NTFPs?

Table – 3 Results showing association between gender and responses (Yes and No) in relation to the responses pertaining to the question "Do you sell NTFPs"?

			Responses		
			Yes	**No**	**Total**
Gender	**Male**	Observed Frequency	12	3	15
		Expected Frequency	12.0	3.0	15.0
		% within Gender	80.0%	20.0%	100.0%
		% within Responses	50.0%	50.0%	50.0%
		% of Total	40.0%	10.0%	50.0%
	Female	Observed Frequency	12	3	15
		Expected Frequency	12.0	3.0	15.0
		% within Gender	80.0%	20.0%	100.0%
		% within Responses	50.0%	50.0%	50.0%
		% of Total	40.0%	10.0%	50.0%
Total		Observed Frequency	24	6	30
		Expected Frequency	24.0	6.0	30.0
		% within Gender	80.0%	20.0%	100.0%
		% within Responses	100.0%	100.0%	100.0%
		% of Total	80.0%	20.0%	100.0%

Table - 3 shows association between gender and responses in relation to the response of "Do you sell NTFPs"? In relation to male respondents, the observed frequency has been found 12 and 3 respectively for yes and no. The expected frequency has been found12.0 and 3.0 respectively for yes and no. Percentage within gender has been found 80.0% and 20.0% respectively yes and no. Percentage within responses has been found 50.0% and 50.0% respectively yes and no.

In relation to female respondents, the observed frequency has been found 12 and 3 respectively for yes and no. The expected frequency has been found 12.0 and 3.0 respectively for yes and no. Percentage within gender has been found 80.0% and 20.0% respectively yes and no. Percentage within responses has been found 50.0% and 50.0% respectively yes and no.

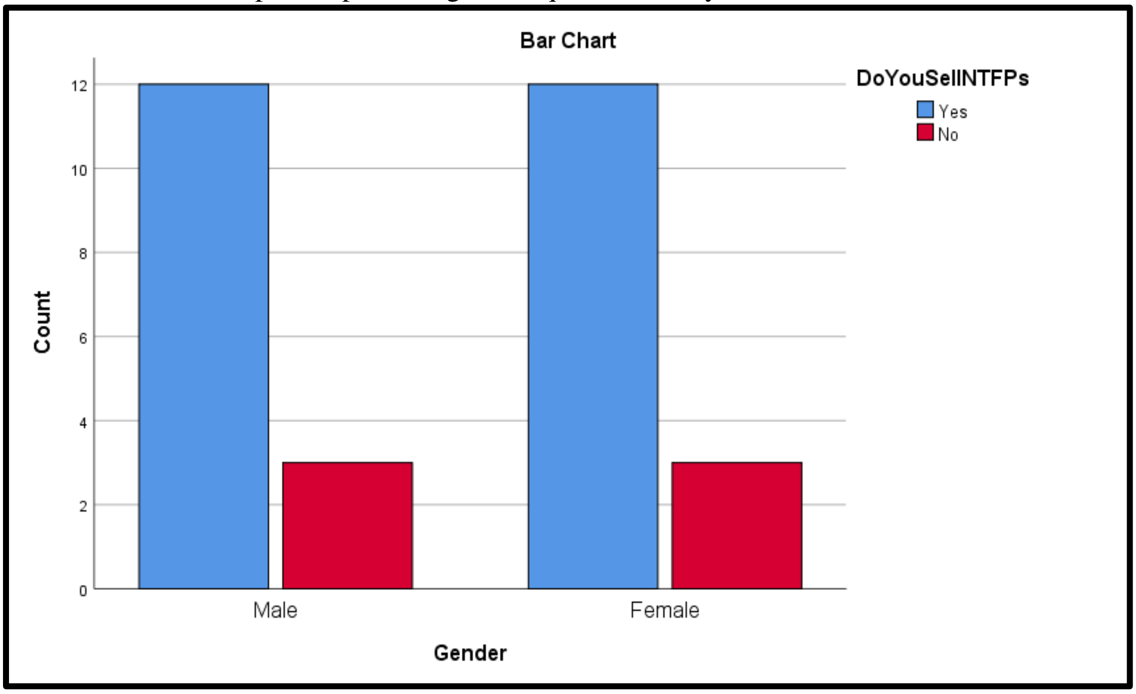
In case of total the observed frequency has been found 24 and 6 respectively for yes and no. The expected frequency has been found 24.0 and 6.0 respectively for yes and no. Percentage within gender has been found 80.0% and 20.0% respectively for yes and no. Percentage within responses has been found 100% and 100% respectively for yes and no.

Table – 4 Chi-Square results related to the association between gender and responses (Yes and No) in relation to the responses pertaining to the question "Do you sell NTFPs"?

	Value	**df**	**Asymptotic Significance (2-sided)**	**Exact Sig. (2-sided)**	**Exact Sig. (1-sided)**
Pearson Chi-Square	.000[a]	1	1.000		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.000	1	1.000		
Fisher's Exact Test				1.000	.674
Linear-by-Linear Association	.000	1	1.000		
N of Valid Cases	30				
a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.00.					
b. Computed only for a 2x2 table					

Table – 4 shows the chi-square results related to the "Do you sell NTFPs?" The observed chi-square value of .00 at 1 degree of freedom is not found significant at 0.05 level of significance. This proves that there is a no significant association between gender and responses (yes and no) pertaining to the question "Do you sell NTFPs"?

Figure – 2 Figure showing the association between gender and responses (Yes and No) in relation to the responses pertaining to the question “Do you sell NTFPs”?



DISCUSSION

The present research study was aimed to see the Role of Non-Timber Forest Products (NTFPs) in Livelihood and Economy of Chhattisgarh State with special reference to Raipur Division. The results of the study revealed that there was a significant association between gender and responses pertaining to the question “What are the major NTFPs collected and/ or sold by your household round the year”? The observed chi-square value pertaining to the question “Do you sell NTFPs”? was not found significant at 0.05 level of significance. This proves that there is a no significant association between gender and responses.

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BLOOM'S TAXONOMY AND THE TEACHERS

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ABSTRACT

Blooms Taxonomy named after Benjamin Bloom classifies the different layers of learning processes that a student goes through when the learning objectives are set for them in a teaching program. In an educational environment where an array of programs and modules are taught by different teachers with differing learning objectives, the consistency of assessment across all modules also become a major task.This paper explores the elements of Blooms Taxonomy in examination assessment system in this college.Further, the methodology adopted by the assessment office of the College, in testing the students' cognition levels (applying Blooms Taxonomy principles) and the questions for mapping the cognitive levels are illustrated. It is also felt that the application of Blooms Taxonomy system has enabled the teachers to set examination papers that are well balanced, testing the different cognitive skills without a tilt towards a tough or easy paper perception.

INTRODUCTION

Taxonomy is the science of organizing things and classifying them according to various criteria. In brief, Bloom's taxonomy is a series of cognitive skills and learning objectives arranged in a hierarchical model. Originally, Bloom's taxonomy was designed as a way of gauging competence by placing a students knowledge on one of 6 levels which are often represented visually in the form of a pyramid.

Each step of the pyramid from bottom to top represents a move from a lower order thinking skill to a higher order one; from straightforward concrete cognition to a more abstract, conceptual understanding.

This taxonomy of educational objectives gets its name from its creator, Benjamin Bloom. Bloom was an American educational psychologist who is best remembered for his significant contributions to the theory of mastery learning, as well as this renowned and widely used taxonomy.

Back in the 1940's, Bloom and his colleagues devised his taxonomy by categorizing a range of educational goals and arranging them into a hierarchy. Bloom believed that by classifying goals in this manner, it would make it easier for educators to more accurately assess student performance.

This work went through countless revisions and reviews before a finalized version was published in 1956 as The Taxonomy of Educational Objectives. The document described a path towards educational attainment that passed through 6 orders of learning.

While Bloom's taxonomy can be divided into 3 domains of educational objectives cognitive, psycho motor, and effective, it is the cognitive domain where our 6 levels are focused.

OBJECTIVES OF THE STUDY

1.To study Bloom's Taxonomy

2. To study why should teachers use Bloom's Taxonomy

3.To study how teacher can use in framing question paper

The Application of Bloom's Taxonomy

Though the original intention of the taxonomy was to serve as an assessment tool, it's use quickly spread into other areas of teaching. It became a very effective tool to help educators identify clear learning objectives, build curricula, as well as to create purposeful learning activities in the classroom.

Despite its dry, academic sounding title, Bloom's taxonomy has had concrete and measurable positive impact in classrooms worldwide, from kindergarten to college and beyond.

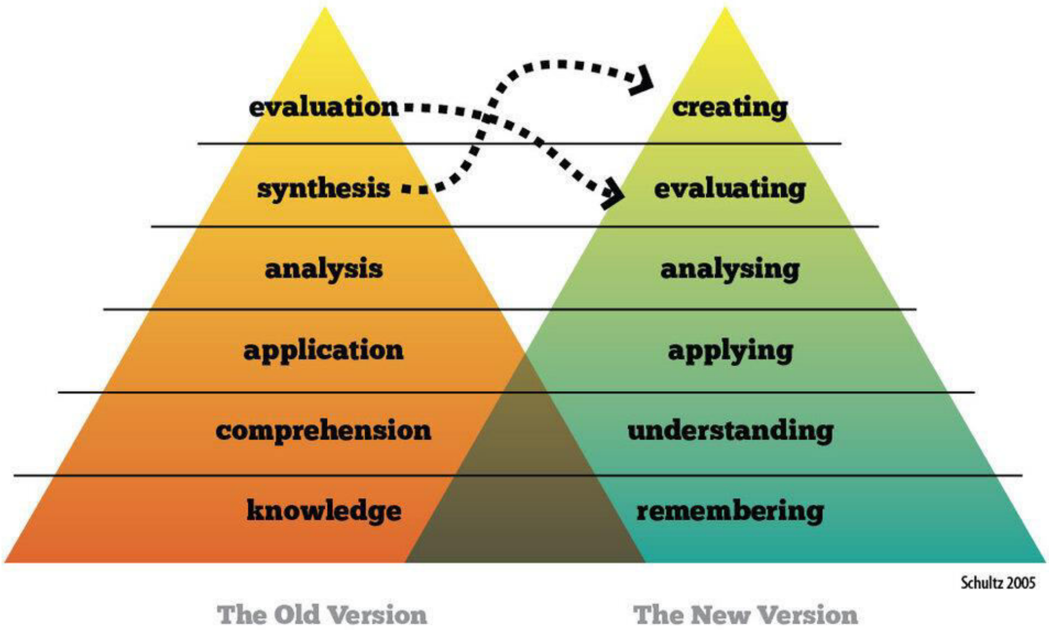
Revised Bloom's Taxonomy

As educators became more experienced in using the taxonomy, they utilized it with ever-increasing flexibility. It became apparent that some revision of the original tool would be beneficial. So, in 2001 a group of stakeholders collaborated to revise the original tool to make it better-suited for modern demands.

The group was made up of educators, psychologists, assessment specialists, and researchers, and they achieved a number of important improvements.

They worked to make the tool more dynamic conceptually, moving away from the one dimensional levels of educational objectives. They did this primarily through a change in language.

Bloom's Taxonomy Levels
As any good copywriter will tell verbs are more powerful than nouns. Those charged with revising Bloom's Taxonomy were well aware of this fact and it is apparent in the many nouns in the old version were subsequently substituted by verbs. Nouns were replaced by much more action-oriented verbs to reflect the idea that learning is not just passive acquisition, but an engaged, active participation.



In the revised version it can see that evaluating is no longer the highest level, instead synthesis has been replaced by create and now represents the highest expression of learning.

for example, where the original version talked of knowledge, the revised bloom's taxonomy referred to the much more active remember. it is helpful here to take a look at the full list of 6 levels in the above table for ease of comparison.

Why Should Teachers Use Bloom's Taxonomy?
Bloom's taxonomy is a great tool for helping teachers to develop higher order critical thinking abilities in students. Referring to the taxonomy's concepts during the planning process helps teachers to focus in on appropriate objectives for groups and individuals and to plan for their progression in the short, medium, and longer term.

The taxonomy provides a clear framework or system of organization for classifying lesson objectives, as well as a coherent starting point to build lessons from.

How Can Teachers Use Bloom's Taxonomy?
The starting point of any planning process should be the consideration of the level of the students. Luckily, Bloom's provides a very convenient framework within which to begin this process.

When creating objectives you can move from the simple to complex, the concrete to abstract, according to the ability of your students through reference to the taxonomy.

For example, knowing that Remember refers to the lowest level of cognitive rigor means you can design your objectives with this in mind.

Likewise, Create references the highest level of cognitive rigor and this will inform the objectives you create for the most sophisticated of your students.

Bloom's Taxonomy Verbs

The knowledge above provides a good starting point, but it doesn't mean that every objective you write for Level 1 students must begin with the word 'remember'.

Conveniently, Bloom's Taxonomy provides lots of related verbs that provide a helpful way for educators to plan lessons. Verb tables have been created to align with each of these levels.

Now, let's take a look at these levels and some corresponding verbs.

Bloom's Taxonomy Levels and Corresponding Verb Lists

The cognitive processes dimension — categories, cognitive processes (and alternative names)

Lower order thinking skills → Higher order thinking

Table 2: Cognitive levels of thinking

Remember	Understand	Apply	Analyse	Evaluate	Create
recognizing (identifying) recalling	Interpreting Clarifying, Paraphrasing Representing, Translating Illustrating Classifying Categorizing Summarizing Concluding, , Interpolating, Predicting Comparing Explaining	executing carrying out implementing using	differentiating discriminating, distinguishing, focusing, selecting organizing finding coherence, integrating, outlining, parsing, structuring attributing deconstructing	checking coordinating, detecting, monitoring, testing critiquing judging	generating hypothesizing planning designing producing construct

Clearly, the verbs listed above do not represent a comprehensive list of all the possibilities of verbs and verbal phrases available at each level, but they certainly provide a good starting point.

It should also note that some verbs and phrases will work at more than one level, just be sure to refer to the stated aim of each level to assess what the purpose is in that particular context.

A useful way to employ verb lists such as those above is to incorporate them into your learning objectives for lessons, or for longer range planning such as term plans or writing a curriculum or scheme of work.

One can easily differentiate the learning objectives set by moving up and down levels and by using simpler verb synonyms in those objectives. Using a thesaurus is a great way to achieve this quickly.

Mapping Question Paper as per Bloom's Taxonomy

Illustrating The Application:-

Course Outcomes (COs) for Assessment in the Examination:
(The number of COs can be increased depending on the number of Course Outcomes as per requirement)

SR.NO.	Course Outcomes
CO1	The learner **understand** the concept , Role of IMC & the evolution of Advertising & Benefits of Advertising,
CO2	The learner get **knowledge** Ad Agency, Careers in advertising & Agency selection criteria.
CO3	The learners can **create** ideas for career in advertising industry.
CO4	The student **evaluates** the impact of Advertising on Production Cost/ Distribution Cost & Consumer Price
CO5	The learners **understand** positive and negative effect of advertising on cultural of India.
CO6	The learner **evaluates** the recent trends in Social Advertising & the Role of Self Regulatory
CO7	The learners can **design** public service advertising

The Number of Sections and Number of Questions can be changed as per need and requirement of the concerned paper

Question Number	Questions	Marks	Mapping COs	Blooms Taxonomy Level's
Part A: Short Question				
1	Define Advertising. State its features.	5	CO1	**Level 1: Remember**
2	Write the career opportunities available in advertising Agency.	5	CO2	**Level 1: Remember**
3	For regional advertising which media is suitable? Give reasons.	5	CO1	**Level 2 Understand**
4	Express your opinion on any unethical advertising.	5	CO3	**Level 3: Apply**
Part B: Long Question				
5	Identify the benefits of advertising to firm and consumers.	10	CO1	**Level 4: Analyze**
6	Distinguish between National and International advertising	10	CO4	**Level 4: Analyze**
7	Explain the services offered by advertising Agency	10	CO1	**Level 2 Understand**
Part C: Very Long Questions				
8	'Advertising degrade our cultural values"Justify	15	CO6	**Level 5: Evaluate**
9	Design a Public Service Advertising	15	CO7	**Level 6: Create**
10	Who paid for advertising manufacturer or consumer? Produce necessary example.	20	Co4	**Level 4: Analyze**

Balancing the Examination Paper

Assessment Pattern as per Bloom's Taxonomy:

Blooms Taxonomy Level's	Remember (Level 1)	Understand (Level 2)	Apply (Level 3)	Analyze (Level 4)	Evaluate (Level 5)	Create (Level 6)	Total
No. of Question in the Category	2	2	1	3	1	1	10
Total Number of Marks in the Category	10	15	5	40	15	15	100

Cognitive Level	Lower Order Cognitive Questions (Remember, Understand)	Intermediate Order Cognitive Questions (Apply, Analyze)	Higher Order Cognitive Questions (Evaluate, Create)
Percentage Distribution of Questions	25	45	30

It was also recommended to the teachers that they can arrive at a balance by setting a question paper that tests both lower order thinking skills as well as higher order thinking skills of the students. Further the assessment office introduced
Following model (LO/IO/HO) for the teachers to apply the concepts while setting the question papers:

- LO – LOCQ – Lower order cognitive questions – covering questions for testing the remembering and understandingof the concepts by the students.
- IO – IOCQ – Intermediate order cognitive questionsCovering questions that test the applying and analyzing skills of students
- HO – HOCQ-Higher order cognitive questions-To test the evaluating and creating abilities of the students with respect to their knowledge.

Blooms Taxonomy in setting a few typical questions are given:

Table 1: The classification Example

Sr.No.	Question	Classification as per Blooms Taxonomy	Marks
1(a)		**LO(LOC)**	**Marks are apportioned based on the total marks allotted far a question**
(b)		**LO(LOCQ)**	
(c)		**IO(IOCQ)**	
(d)		**HO(HOCQ)**	

Table 2: Balancing the Exam Paper

Cognition level	LOCQ	IOCQ	HOCQ
Percentage distribution recommended	20-30%	40-50%	30-40%

It is observed that the teachers generally gives a blend of LO/IO/HO questions in the paper so that the students get an evenly balanced paper in the exam.The author (Piontek, 2008),in a publication by the
the students should feel that the asessment paper is fair and meaningful and the assessment data, reflecting the students achievement, should support this fact.Application of Blooms Taxonomy, is one of the instruments to achieve this objective.

In the process of setting the question papers with the components of LO/IO and HO, the teacher is also advised to provide details of total marks distribution among the LO/IO/HO questions of the paper. The above Table 2: Balancing the Exam Paper shows as an example, the percentage marks distribution in a possible case. The question of balancing the marks distribution among LO/IO/HO is normally left to the staff, setting the question paper.

In this method, it is believed, that the questions test the students' analyzing, designing and critical thinking skills in a**ddition to their basic understanding of the topic.**

CONCLUSIONS

It is necessary to mention here that application of Blooms Taxonomy should cover the learning outcomes of the module being tested. This is emphatically stated by the author (Nusche, 2008) that learning outcomes should form the basis for any type of assessment. The distribution of marks over LO/IO/HO classification also depends on the level (year of study) for which the question paper is being set. In addition, the type of module (analytical/theoretical) also plays a role in the appropriate distribution of the questions across the different cognition levels. It must also be mentioned here that the Blooms Taxonomy principles serve as guide lines to the teachers framing the question paper but it is largely left to them to bring out a balanced paper as the final outcome. It is fair to conclude here by saying that the comments from the external examiners have become more positive on the question papers sent to them for review, after the introduction of Blooms Taxonomy in the college.

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FINANCIAL CUM TAX PLANNING FOR INCOMES EARNED FROM DIFFERENT SOURCES: REVIEWS OF SELECTED INDIAN STUDIES

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ABSTRACT

Financial Planning for an individual simply indicates the process of setting-up and defining his / her financial goals and making investments in order to attain these goals. One of the prime purposes of financial planning is to offer financial security in long term. Tax Planning is a crucial element of financial planning. The prime objective of tax planning is to save money through minimizing the tax liability by simultaneously complying with legal obligations and requirements of Income Tax Act. Methodology used for research was descriptive in nature. Study comprised of literature review of selected researches in India. These studies were carried out regarding financial planning cum tax planning for incomes earned from different sources in India. Data was collected through secondary sources including research papers and articles published in various journals and publications.

Keywords: Financial Planning, Tax Planning, Individuals, Income Earned, India

A) INTRODUCTION

Financial Planning for an individual simply indicates the process of setting-up and defining his / her financial goals and making investments in order to attain these goals. One of the prime purposes of financial planning is to offer financial security in long term. Some of the common financial goals include buying and / or construction of house, education of children, marriage of children, retirement planning, etc. Financial Planning is a comprehensive and systematic approach through which individual maximizes the available monetary resources with the help of suitable management of finances for attaining the financial objectives.

Tax Planning is a crucial element of financial planning. The prime objective of tax planning is to save money through minimizing the tax liability by simultaneously complying with legal obligations and requirements of Income Tax Act. Tax Planning is all about decreasing the tax liabilities by investing money in right securities / instruments at the right time with an overall aim to achieve the set financial goals in long term. Tax Planning is a legal strategy to be used by person for minimizing tax liability with the help of rebates, benefits and exemptions.

B) RESEARCH DESIGN

- Methodology used for research was descriptive in nature.
- Study comprised of literature review of selected researches in India.
- These studies were carried out regarding financial planning cum tax planning for incomes earned from different sources.
- Data was collected through secondary sources including research papers and articles published in various journals and publications.

C) REVIEW OF SELECTED INDIAN STUDIES

- Uma K. and Lingaperumal G. (2012) investigated into the level of awareness mainly among government employees with respect to tax planning and deductions allowed from taxable income earned during a financial year. Study examined into relationship existing between age of government employees and their magnitude of awareness. Data was collected from both primary data and secondary data. Primary data was collected with the help of questionnaire (schedule) from fifty government employees located in Madurai city. Sample respondents were selected using convenience sampling method. Study found that large numbers of individuals were aware and conscious about investments in recognized provident fund, life insurance policies, National Saving Certificate, tuition fees paid to educational institutions and long term infrastructure bonds. It was inferred that investment pattern and tax planning approach differed from individual to individual. This investment pattern and tax planning approach was dependent on and got influenced by diverse variables including age, nature of employment, income source, family background and amount of income. Female employees possessed lower level of awareness compared to male employees. Investment pattern that was appropriate to one person may not be suitable to another individual because of numerous reasons. Individuals were highly dependent on chartered accountants for determination and payment of tax

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liabilities. Research suggested chartered accountants to educate employees regarding different deductions and exemptions available under Income Tax Act to minimize their tax liability.

- Bhide Shilpa (2013) studied the awareness regarding income tax planning and numerous provisions related to income tax mainly among salaried assessees. Primary data was collected from fifty working / salaried professionals who were selected on random basis. These employees earned incomes from other sources including rent, dividend, interest, royalties and share trading. Study covered individuals who paid taxes on their incomes and were located in Pune city. A questionnaire consisting of 21 questions was drafted and administered. Research found that selected respondents were aware of basic provisions regarding taxation including tax rates, exemptions limits, terms like previous year and assessment year. Selected salaried employees carried out tax planning through self-study or took assistance from friends and relatives. Number of salaried employees availing help from professional was very less. Individuals gathered information from various sources such as friends, relatives, insurance agents, agents of post office, tax consultants, newspapers, television, etc. Study indicated that employees perceived going to tax consultant involved heavy cost and also it was not necessary to consult the tax consultants. Salaried assessees had basic knowledge about tax provisions, but were not satisfied with their tax planning.

- Saravanan K. and Muthu Lakshmi K. (2017) explored the most familiar, well-known, suitable and largely preferred instrument for saving tax liability. Study examined the amount of money saved by tax payers by using such tax saving instruments. The income tax planning executed by individuals was mainly focused. Descriptive study was carried out to scrutinize into relationship between income earned by assessee and income level on saving of taxes. Data was gathered from both primary and secondary sources. Primary data was collected from one hundred assessees from Trichy city through conducting surveys using questionnaire and personal interviews. These assessees were selected using stratified random sampling. Study revealed that assessees ranked different tax saving instruments on the basis of their preferences and priorities towards tax saving. Most of the assessees preferred, adopted and invested their money in provident funds for saving taxes on their incomes. This was followed by investments made in life insurance policies, payment of principal and interest on housing loans and payment of tuition fees for children for saving the tax liability.

- Varghese Blessy (2019) explored the awareness of tax planning measures among the salaried individuals located at Chengannur taluka in Alappuzha District. Primary data was collected from fifty individuals by carrying out survey using research instrument as questionnaire. Respondents were selected using convenient sampling. Study focused on reviewing tax related reforms implemented and executed by the Government in context to taxation laws. Research evaluated the measures taken by salaried assesses regarding the income tax planning. Research tried to assess efficiency of administrative machinery for collection of and management of taxes in India. Research emphasized on determining consciousness among salaried individuals about tax planning measures available under the provisions of Income Tax Act. It was found that assessees rarely depended on and rarely availed services offered by professional experts and financial advisors for making investment decisions. Assessees mainly invested in insurance policies and fixed deposits schemes as tool of tax planning. Assessees formulated tax plans at the end of financial year. The tax consultants updated and informed assessees regarding changes and modifications in income tax mainly about income tax filing returns and provisions for rebates. Assessees formed opinion that services of tax practitioners were not important for filing income tax returns. These assessees not experienced payment of penalties or fines about income tax. Assessees indicated there was need for having tax planning education to be provided by government for minimizing problems and difficulties faced at the time of filing tax returns. Study suggested comparative research to be conducted on tax planning of salaried assessees and other types of assessees.

- Pimple Sachin and Peshori Kishore (2019) examined the perceptions and understandings of young and dynamic people towards tax planning. Study aimed to appraise the impact and influence of personal factors (such as age, gender and education) on tax planning of individual tax payers. A combination of descriptive research and explanatory research was conducted. Study was based on primary data collected from 210 respondents located in Mumbai city using a structured questionnaire. Sample respondents were selected using convenience sampling method. The young and vibrant citizens indicated future of country as well as they were prospective tax payers who contributed towards economic growth and development of India. Research found there was relationship existing between age of individuals and tax planning. However, education and gender of individuals had relationship with tax planning. Study concluded that respondents understood their responsibility about payment of taxes, but were not aware regarding processes, rules and regulations of taxation.

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D) CONCLUSION

The paper is based on review of existing research studies carried regarding financial cum tax planning by individuals in Indian context. Studied identified and reviewed five researches carried out in India. All selected pointed out meaning, significance, essence, awareness, measures used and investment instruments used by individuals while carrying out financial cum tax planning.

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SUSTAINABLE STRATEGIES: A KEY FOR SURVIVAL

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ABSTRACT

Over the past decade technology and its use outside of the USA has risen up and largely benefiting countries like India in a large manner, in this technological upbring there are large efforts devoted for innovations, differentiation, upbringing of product and services thus concluding into a new era of business and exchange. To keep in the market and to gain competitive edge firms have to bear on new strategies and campaigns although some work some may not and they have to occur losses if not gains in exchange, there should have a set of business strategies that helps the business to stay uprooted and keep them sustained in future. This paper aims towards addressing the problems with current strategies adopted by firms and how dynamism-based strategies can assist the firms to adapt and sustain in concrete technological atmosphere. Methodology adopted is qualitative wherein 12 semi -structured in depth interviews have been conducted and opinions and reviews from business community and social media platforms have been considered. Content analysis has been used to draw inferences and authors have demonstrated at the end an escape plan which can be served as a blueprint to ensure survival and growth in market.

Keywords: Sustainable business strategies, cash flow, margin, growth

I INTRODUCTION

Over the past decade technology and its use outside of the USA has risen up and largely benefiting countries like India in a large manner, in this technological upbring there are large efforts devoted for innovations, differentiation, upbringing of product and sericesv thus concluding into a new era of business and exchange. To keep in the market and to gain competitive edge firms have to bear on new strategies and campaigns although some work some may not and they have to occur losses if not gains in exchange, there should have a set of business strategies that helps the business to stay uprooted and keep them sustained in future.Strategies based upon consumer behaviour pattern, and a calculated risk pattern that has benefited firms in the past and would carry on benefiting in future too. Business need a positive cash flow to sustain in the competitive market.

Throughout the years of prosperity evidences shows successful business strategies that could positively impact a firm to generate revenue. It's not only a once event, change is constant in the business. There is a need of continuity

To run a business. 60% of businesses fail within the first 3 years due to money problems, lack of vision, wrong market research and bad marketing of the product.

Table 1: Businesses failure rate in early stages

Within their first	Failure Rate
1 year	20%
2 year	30%
3 years	60%
10 years	70%

Strategies tried and tested by world's renowned business persons who have built gigantic companies that are now worth in trillions of dollars would eventually aid the new businesses to achieve growth via giving them vision, marketing strategies, free to collaborate, adding value to the business, benefit of positive cash flow and great leadership shall eventually benefit the firms to run in profit.

This paper aims towards addressing the problems with current strategies adopted by firms and how dynamism-based strategies can assist the firms to adapt and sustain in concrete technological atmosphere. This paper also demonstrates at the end an escape plan which can be served as a blueprint to ensure survival and growth in market.

II OBJECTIVES OF THE STUDY

- To put forth the need for sustainability in dynamic market

- To understand what are sustainable strategies
- To understand the reasons for failure of business
- To put forth how sustainable strategies can assist businesses for long term survival
- To propose strategy for sustainability

III METHODOLOGY

The paper is qualitative in nature where primary data has been extracted from in depth semi structured interviews of 5 banking professionals and 2 Politicians and 5 business leaders along including comments and opinions of respondents on business community platforms and networks like reddit. The secondary data has been collected from research papers, blogs and various social media platforms to support true initiative and ideals for the Paper. Content analysis has been used to draw conclusions.

IV LITERATURE REVIEW

Organizations must adapt their long-term strategies and incorporate environmental and social aspects into their product offerings and decision-making to meet changing societal demands. Companies must, however, satisfy both short-term profitability interests and shareholder demands (Haessler, P., 2020). The combination of sustainability-oriented collaboration and business model change is strongly associated with profits based on sustainability. Companies that change their business models as a result of sustainability and make sustainability a permanent part of top management's agenda appear to profit more from their sustainability efforts than companies that make sustainability-related changes without that level of top management support (Kiron, D., et.al ,2012). Innovative business models have given organisations a competitive advantage in terms of improving their sustainability performance (Nosratabadi, S., et.al , 2019).

V RESULTS AND DISCUSSION

Following are the questions that were resorted to gain insights and draw conclusions

1 - Are businesses run by emotions?

- consumers tend to have an emotional connect with the product and product they are purchasing so having that emotional connect with your consumer will obviously gonna increase your sales and tend to make your consumers come back to you again and again like the example of starbucks but it tends to depend on business to business (Gajendra Barsagade - senior manager/Banker at IOB)

2 - When you start business you need that emotional personal connect with your consumer but when you become a large company you don't need that cause you will have the people who will do it for you (Nilesh Dhage- A business owner in Nagpur)

3-Why should businesses focus on developing an Ecosystem?

- big businesses always have an ecosystem to run along with like in the banking sector that i work in have all types of services that we provide to our consumers and an ecosystem really helps with the customer choosing you over your competitor.

4-First when you start your business you shouldn't focus on developing an ecosystem, you should focus on providing the best service with the the product youre selling and giving the best out of it or whether you lose.

5-Does distinguishing help in any way from the competition?

- yes it does, but you need to be careful around it , if you think what were selling and what citibank is selling

is different, we are focusing on different kind of people and they are targeting TOP 1% so i would agree it helps , citibank and others would not bother about a project of 1 or 2 cr, they would be entertained if a big 100 or 200 cr project comes.

- yeah, but not too much, it depends on the targeted market like if you're selling a product that needs

to be identical so a minor differentiation would help.

6-Selling an experience along with a product would help in any way? (starbucks example given)

- Yes , in every financial sector and consumed sector along with product if people like your product with the attention they get it really makes a difference but again if you are at big scale you have people to do it

- First at starting you should focus on business itself. if people don't like what you're making then they won't

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come to you again and experience matters too but with a good quality product.

7-Does a business need distinguished exclusivity?

- yes again giving you an example of the citybank they have focused on high class os it makes their depiction on the mind is very high value brand.

- yes but not at the start as i said, after you make yourself as a brand then you can go on and differentiate.

8-Rather than discounting would making a cult for your product that people would buy in recession?

-fair to say businesses are focusing on top earners already have the cult and they wouldn't be bothered cause the targeted consumer is different so they don't give discounts that much cause they know their consumer could afford that.

-Yes but it is hard to make that cult at first. First you need to give discounts.

-For my first customers i give 30% off but after that i charge them and my clients wont hesitate to pay that.

9. Is speed needed for business?

-ofcourse if board members are gonna sit around and argue about a business strategy then it's going to take unnecessary amount of time if a business have an entity that would make decisions then its faster always nor to be say time is money too.

VI FINDINGS

Based on the above responses and content analysis the following interpretations are drawn.

Reasons for Failure of Business

Poor Cash flow: The Indian consumer is very clever and spoiled. He wants the best quality product cheap very quickly, still asking for an extra discount at the side. In the market, firms should have cash flow to keep up. That's the reason 60% of new businesses go bankrupt in 3 years due to lack of understanding of the consumer behaviour.

Lack of emotional connect with customers: Businesses are run by emotions so the firms need to emotionally connect with their consumers to build an ecosystem and a culture that their consumers could celebrate and enjoy upon. Psychological standpoint is a pillar of running a successful business strategy should be assisted by that and should be developed in the way around behaviour could get consideration.

Failure to understand consumer needs: Businesses fail as the product does not meets the expectations of the consumers thus businesses have to do consumer need analysis with strong research and survey so as to offer need based products.

Poor leadership: Today it is not just product but the captain of the ship who leads the voyage to destination. Businesses have failed due to delay in decision making and poor leaders who are not dynamic and lack speed leadership qualities.

Failure to deliver experience: Today customer buys product not for consumption b ut sometimes the emotional connect and status and experiences play a crucial role. Sellers have to understand the purpose and understand consumer behaviour for purchase of different kinds of goods.

VII RECOMMENDATIONS AND CONCLUSION

Based on the responses following are the suggestions and recommendations titled as "Escape Plan: Sustainability strategies".

THE ESCAPE PLAN: SUSTAINABILITY STRATEGIES

1. Conservative margin strategy

Used and proven methods by Sony, NPCI and many others, selling main product with low margins and making profit with complementary product but with attractive price results in conservative cash flow revenue for long terms.

2. Innovative market keeping

Keeping up with market current trends but also distinguishing to make customers think you're better and different.

3. Cash is king

Rather than discounting, making a cult for the product that would get purchased even in a recession.

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4. No freebies

Rather than giving freebies like refer and earn build a software that customer would willing to play even if competitor is offering for free (should be qualitative)

5. Distinguished exclusivity

Apple is competing in the smartphone market along with many competitors but what makes anyone choose apple over them even with a premium price is the exclusivity of software, ecosystem of apple products, along with many benefits that exclusivity makes and differs them to a better choice.

6. Selling an experience/status

At Starbucks they are not selling you coffee, they're selling an experience that consumers would love to come up with again and again with their distinguished exclusivity from other chains.

7. Sudden price drop strategy

Consumers have high expectations from a premium product and if they think that the image of the product in their mind would be built as an expensive deal thus speculating as a premium cost. But if introduced at a discounted price of their expectation it would be concluded as a bargain and thus would be bought out at a much faster rate. Here the psychological factor comes in like when apple announced iPad they announced at price of 1000 dollars but suddenly reduced the price at 500 dollars thus increasing sale, revenue, profit and margins

8. The base

Being the infrastructure that other infrastructure would be built upon would let you be in a monopolistic competition when competing with your own product.

E.g when reliance launched jio it became a hub of internet traffic upon which the firms started/expanded their products/services that everyone was able to use because they had the basic infrastructure.

9. Speed is the key to progress

Business decisions has to be quick considering the volatility and dynamism in current market.

CONCLUSION

Competing in a market that is surrounded with a bunch of competitors, strategies would need to be changed from time to time but core business idea vision should never change. Strategies like ‘The Loss Leading’ have been researched and reframed by us. businesses should focus on the strategies that they could use and be profitable for a long amount of time. After studying the business model of trillion-dollar companies, we have concluded a culture around your product is the asset you have for your lifetime, even if you don’t give discounts for a long amount of time these repetitive consumers tend to buy your product just because of the culture around the product you have e.g Nike Air Jordans. The cult makes them your repetitive consumer, your marketer, your advertiser at the same so this qualitative approach is considered the better approach than just marketing and selling.

Discounting do play a big part if customer is thinking he’s getting it, in case of apple it doesn’t take huge money per module to produce but the depiction of the brand in mind of people has became like whenever they announce a product and drop price of previous models people think its a bargain even if the product itself worth 3X lower than selling price. The exclusivity the brand has to offer makes up for any other absence. But this distinguished exclusivity should not be too much, the product should be identical to the market or else it can create a new market that no one’s ever heard about nor familiar to. If the company becomes the base on the other infrastructure would be built upon it itself become a monopoly or monopolistic competition e.g. Reliance has always chosen to be the base of the infrastructure that other infrastructure would be built upon. These could benefit any company in many ways. Businesses are the integration of finance, marketing, management, customer service so there should be an entity strong enough to know and have a hand in all along with people who are scholars in each field. That makes everything included in business like taking decisions, strategy in speed and speed itself is the key.

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CRYPTOCURRENCIES: PAST, PRESENT & FUTURE FOR INDIAN ECONOMY

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ABSTRACT
Cryptocurrency is cutting-edge decentralised virtual currency. India's latest gold-like investment product. India's government outlaws the acquisition and selling of cryptocurrencies like bitcoin, litcoin, etc. while having no regulatory authorities or legislation addressing cryptocurrency trading and transactions. In India, cryptocurrencies are restricted. This paper examines cryptocurrency and the Indian economy. The research also discusses cryptocurrencies in India and its future.

Keywords: Cryptocurrency, Blockchain technology, impact on Indian Economy.

1.0 INTRODUCTION
Cryptography secures virtual currency like bitcoin. It's a digital currency used like ordinary money. It employs cryptography and block chain technology to protect its exchanges, limit the development of a certain coin, and track each transaction across the network. Virtual worlds, peer-to-peer networks, online social networks, online social games, and other electronic applications and networks use cryptocurrencies to represent intangible things. Many systems now employ virtual currency. The fast rise of information and communication technology has digitised many of our daily tasks, making them more adaptive and efficient. After the Corona pandemic, online users increased, enabling virtual world notions and a new commercial phenomenon in India: cryptocurrency. This technology enables buying, selling, and trading.

In a time when using virtual currency is not fully overseen and controlled, it is crucial to look at users' expectations for cryptocurrencies' future and their trust in conducting business with them. Practically, it is also important to measure bitcoin's growth. Many nations have passed cryptocurrency laws.

2.0 REVIEW OF LITERATURE

Akshay A., Shivashankarachar Y. –
A Study on Security Issues in Bitcoin and Cryptocurrency Investments and Transactions This report revealed other bitcoin risks, such as India's lack of transaction legislation. Bitcoin complaints are unfounded.

Everett J. & Team, US Treasury, -"Risks and Vulnerabilities of Virtual Currency- Cryptocurrency as a Payment Method" This study examines the risks and problems of consumers, corporations, government agencies, and financial institutions embracing cryptocurrencies as a substitute for fiat money.

Jeffrey Mazer, USA, "Demystifying Cryptocurrencies, Blockchain, and ICOs" Freelance financial consultant Jeffrey Mazer works in the US. He helps organisations and institutions with financial analyses. In this essay, he describes cryptocurrencies and its technology, such as blockchain and cryptography.

MIT Expert "Blockchain, explained" The author of this blog (MIT Digital) explains Blockchain Technology and how it became linked to cryptocurrency. He said blockchain technology gave Bitcoin minimum networking and verification expenses, anonymity, and security.

WCI (Cryptocurrency Guide, News and Reviews)
This website gives in-depth bitcoin information and daily updates. It also tracks the bitcoin market's performance. This article explains how cryptography makes bitcoins the most secure payment option.

Sudhir Khatwani (CoinSutra) – "Bitcoin's Future in India After RBI Ban" This article examines how Bitcoin and other cryptocurrencies are faring in the Indian market after the RBI banned the exchange of these digital currencies for fiat money through its own institutions, including banks and other financial organisations.

Peter De DeVries, "Cryptocurrency, Bitcoin, and the Future" In this study, the author did a SWOT analysis of Bitcoins and other cryptocurrencies to predict their future. Bitcoins' unique design and low production volume make them inflation-proof.

Shailak Jani- "The Growth of Cryptocurrency in India: Challenges & Legislation" This study paper shows how technology has led to the growth of cryptocurrencies, their appeal on the international market, and their application in Indian trade.

3.0THE PROBLEM OF THE STUDY
Cryptocurrencies can be used for transactions like traditional money, but regulators and the government are sceptical. Despite being existing for almost a decade, it's still unknown if cryptocurrencies will become a genuine means of payment or just an investment. Most individuals consider cryptocurrencies illegal because of their unknown worth.

3.1Objectives of the study
1. To Study the evolution of Cryptocurrencies in financial world.
2. To focus on past & present status of Cryptocurrencies trading in India.
3. To Study various emerging approaches of Government for Cryptocurrencies.
4. To analyse the trends in growth of cryptocurrencies trading.
5. To explore the future challenges of cryptocurrencies to Indian economy.

3.2 Methodology & Plan of Work:
This study's research design is largely qualitative exploratory research. It's simple and ill-defined. Primary data was collected via a survey questionnaire. Each question includes options. To evaluate awareness and perception of cryptocurrencies, a Google Survey Form was circulated in Mumbai. The questionnaire was intended to include all demographics, including male and female, 18-year-olds and older, working (in public, private, or educational institutions), businesspeople, non-workers, students, and non-working persons. There are even annual income categories.

4.0 AN EVOLUTION OF CRYPTOCURRENCIES IN FINANCIAL WORLD
Bitcoin, established in 2008 by Satoshi Nakamoto, is the most popular cryptocurrency wallet. Bitcoin is digital money. It is a decentralised peer-to-peer digital currency transmitted from user to user. The anonymous Bitcoin network's no-middleman transactions are facilitated through the block chain. Bitcoin has been the most popular digital currency since its 2009 inception.

Bitcoin transactions are cheaper than traditional online payments. Bitcoins are digital money meant to stand-alone. Banks do not move or store money. A public cloud wallet only stores balances, not bitcoins. Each Bitcoin transaction requires a lot of calculation. Wallet is a private database you may maintain on your computer, smartphone, tablet, or in the cloud. Bitcoins transfer between wallets.

- **Cryptocurrency:** Digital currency, it is safer than real money.
- **Cryptography** encodes data in hard-to-decipher codes. Cryptography protects data from theft and misuse. Data is encrypted as cypher text and then decoded for the user.
- **Block Chain** - A chain of linked blocks from most recent to Genesis Block. Blockchain transactions are recorded chronologically, establishing an immutable chain, and can be private or anonymous. The ledger is dispersed across multiple network users; it has not centralised.

4.1 Features of Bitcoin
It is not simply about transmitting money from one person to another when using the Bitcoin system. It stands apart from other crypto-currencies thanks to a variety of features.

1) It protects users from scams like chargebacks and illegal purchases. Encrypting wallets gives users complete financial autonomy. No fraud is possible.
2) Bitcoin allows any bank, corporation, or person to securely send and receive payments in minutes. Worldwide, all payments are accepted.
3) Bitcoin allows direct, middleman-free transactions. Comparatively, transaction time and cost are lower.
4) All Bitcoin transactions are transparent. Block chain stores transaction details. A place to check.

4.2 Types of Cryptocurrencies
Over 1600 cryptocurrencies are online and growing. When a new cryptocurrency appears. Bitcoin leads Ripple, Ethereum, and Litecoin in market capitalization.

Bitcoin: Market cap: $846 billion: Bitcoin's price rose as it gained popularity. May 2016 Bitcoins cost $500. On March 1, 2022, one Bitcoin cost $44,000. It's up 7,800%.

Litecoin (LTC) $9 billion market cap: Charlie Lee, a former Coinbase software developer, founded Litecoin (LTC) in 2011. Its programming copied Bitcoin's. 84 million Litecoins are available. It hit $413.47 in May 2021, then plummeted more than 50%. Litecoin acceptance grows.

Ethereum Market cap: $361 billion: Vitalik Buterin, a researcher and programmer, founded Ethereum in July 2015. Open source blockchain platform. Ethereum grew quickly, too. Between April 2016 and March 2022, its price rose from $11 to nearly $3,000.

Tether (usdt) $79 billion market cap: Tether is a stablecoin, which means it's backed by fiat currencies like the U.S. dollar and the Euro and supposedly retains their value. Investors wary of the volatility of other coins pick Tether because its value is presumably more steady.

Over $68 billion for Binance (BNB): Binance, one of the world's largest cryptocurrency exchanges, accepts Binance Coin for trading and fees. Since it was released in 2017, Binance Coin has expanded beyond enabling exchange transactions. BNB was $0.10 in 2017. By March 2022, its price reached $413, a 410% rise.

There are many other cryptocurrencies like Terra (Luna) Over $34 billion market cap, Cardano (ADA) Over $33 billion market cap, Solana (SOL) Over $33 billion market cap, Polkadot (DOT) Over $22 billion market cap.

5.0 PAST & PRESENT STATUS OF CRYPTOCURRENCIES TRADING IN INDIA

Bitcoin investments have increased in India since 2020. 1.5 to 2 crore Indians invested in cryptocurrency in November. Bitcoin adoption is growing in a country famed for investing in gold and other safe assets. Let's look at the virtual asset's history before the bill's introduction.

2008: Bitcoin debut

Satoshi Nakamoto's 2008 paper "Bitcoin: A Peer-to-Peer Electronic Cash System" created cryptocurrencies.

2010: ICO

10,000 Bitcoin were exchanged for two pizzas two years later. Cryptocurrencies had value. Litecoin, Namecoin, and Swiftcoin followed Bitcoin.

RBI issues first cryptocircular

The Reserve Bank of India (RBI) warned clients about virtual currency security threats in 2013 as crypto investments surged in India and exchanges like Zebpay, Pocket Bits, Coinsecure, Koinex, and Unocoin formed.

Demonetization, 2016-2018; RBI crypto ban

Demonetisation boosted digital payments, attracting tech-savvy customers to cryptocurrencies. As long as Indian banks allow cryptocurrency trades, the RBI will issue another circular in 2017 to highlight its worries. RBI and finance ministry cautioned in 2017 that virtual currencies aren't legal money.

March 2018: CBDT proposed outlawing virtual currency. The RBI banned banks, NBFCs, and payment system providers from using virtual currencies a month later. Cryptocurrency trade volumes dropped 99%.

Nischal Shetty, founder of WazirX, launched #IndiaWantsCrypto on November 1, 2018, ten years after Nakamoto's article. Rajya Sabha MP Rajeev Chandrashekhar supported it.

DJ Nikhil Chinapa, Unocoin's Sathvik Vishwanath, and Polygon's Jaynti Kanani subsequently joined. Nischal's comments assisted the campaign, and the hashtag trended on Twitter in February. #IndiaWantsCrypto reached 1000 days in July 2021 thanks to Nischal's tweets and crypto enthusiasts.

March 2020: Supreme Court lifts cryptocurrency banking ban

The RBI circular's restriction was a blow, therefore bitcoin exchanges challenged it in court. The Supreme Court reversed the ban and deemed the RBI circular illegal. Supreme Court judgement revived bitcoin exchanges and coincided with crypto boom.

2021: Crypto Bill

India's cryptocurrency battle continued. India will introduce a national digital currency and ban private cryptocurrencies on January 29, 2021. In November 2021, the Finance Committee met with BACC and other cryptocurrency stakeholders. In December 2021, Narendra Modi discussed cryptocurrency.

6.0 THE TRENDS IN GROWTH OF CRYPTOCURRENCIES TRADING.

Bitcoin has become a prominent worldwide market capitalization participant in recent years. Multiplying the quantity of coins in circulation by their market value gives market capitalization. Figure 2.1 displays bitcoin prices from April 2013 to December 2018. The graph depicts bitcoin's volatile value.

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Source: Trading view

Bitcoin prices ranged from 69155 USD in November 2021 to 18185 USD in September 2022.

Figure-2.1 and Figure-2.2 have a similar trend, although Figure-2.2 excludes Bitcoins. Since January 2017 to mid-2018, the Market Capitalization of cryptocurrencies (including Bitcoins and Altcoins) increased at an astounding rate; nevertheless, the trend has been negative, and volatility is significant.

Source: Tradingview ,Total market capitalisation of Bitcoin from 2017 to October 2023

6.1 Growth Motivators

1. Growth: Economic growth is important to bitcoin's growth. With the debut of blockchain technology and Bitcoin in 2009, and Bitcoin's subsequent exponential growth after 2013, it is obvious from the history of cryptocurrencies that investors' appetite for risk returned to pre-recession levels. In 2017, the stock market nearly set a record and investor confidence soared. Expanding risky investment assets.

2. Blockchain: Bitcoin has captivated the technology world with blockchain. Before blockchain, cryptocurrencies like bitcoin were worthless. Blockchains improve cryptocurrencies' efficiency, transaction costs, and security. It allows users to conduct unforgeable, verifiable transactions without bank fees. Since 2008, the value of cryptocurrencies has grown exponentially, which explains their popularity and introduction into reverse mergers. This expansion and blockchain's usage in finance are expected to continue.

3. Investing propensity: Capitalist lust has contributed to the bitcoin surge. Government and investment institutions gave cryptocurrencies disproportionate attention in 2017, validating them as financial assets. Japan approved legislation requiring cryptocurrencies to register with the monetary services agency in February and April. Goldman Sachs' markets division will cover Bitcoin due to high demand. CME will issue Bitcoin derivatives. These events show limited capitalist demand for cryptocurrencies.

4. Decentralized investment appeal: Central bank policy can devalue centralised currencies. Because they're not regulated by governments or central banks, cryptocurrencies are mostly managed by market forces. By definition, cryptocurrencies are secure. Blockchain's decentralised nature permits cross-border, unforgeable transactions.

This allows sceptics' concerns regarding cryptocurrencies during the past decade.

5. Digitally-only: Bitcoins are digital, therefore no shipping or transaction fees apply. The digital nature of cryptocurrencies lowers digital transaction costs compared to online banking fees.

6. Technology: The emergence of devices that can use cryptocurrencies has increased the market's demand for digital currency. Cryptocurrencies are a good way to preserve and develop money.

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7.0 THE FUTURE CHALLENGES OF CRYPTOCURRENCIES TO INDIAN ECONOMY.

Similar to other countries, India's use of cryptocurrencies like Bitcoin has surged following demonetisation. The rupee-dominated cryptocurrency has the third-highest trading volume behind the dollar and the yen. A large section of the population adopted cryptocurrencies after the 2016 demonetization decree, but soon after, facts surfaced that halted the market's rise in India. Despite its population, India contributes less than 2% to the global bitcoin market. In India, cryptocurrencies are not restricted. Because it has digital, Bitcoin is used for money laundering, terrorism financing, drug trafficking, and hacking. This has raised population fatigue because it reduces security and dependability.

1. Speculative and dangerous: Investors will not profit from all cryptocurrencies. Supply and demand affect the cryptocurrency's price. Speculation drives cryptocurrency valuation, introducing risk.

2. Volatility: Due to their volatility, cryptocurrencies are not suited for a large portion of the world's capital.

3. Cybercrime: Blockchain technology has made crypto more secure, but it is still vulnerable to cyberattacks. Worldwide hackers have stolen hundreds of millions of dollars in recent years.

4. Taxation: Depending on how long they kept the cryptocurrency, investors may be taxed as long-term or short-term capital gain.

5. Regulation problem: Cryptocurrency trades are unregulated. This has increased fraud, threatened investor protection, and made it harder to track money flow in the economy. The RBI and other central banks could not monitor cryptocurrency.

6. Unsecured: Because the entire asset is digital, it is always at danger for a security breach. Hackers can target any component, compromising the system.

7. Expensive: It is expensive because it uses expensive new technologies.

8. Perceptions: Since cryptocurrencies are not globally regulated, individuals regard them as illegal and are cautious to invest in it.

9. Technology upgrades: The bitcoin economy is so uncertain that defining its industrial characteristics is impossible. Valuation changes frequently.

10. Theft: Storing cryptocurrency keys is risky because they are unregulated and cannot be recovered if stolen. This digital asset must be protected from theft.

8.0 DATA ANALYSIS

Data analysis entails converting all questionnaire-based survey data into a usable form to extract and draw conclusions. Primary source information (questionnaires) was tallied and converted to percentages. Analyses used tabulated data. For further data analysis, pie charts or bar graphs (2D diagrams) were utilised. Due to the 16 multiple-choice or Likert scale questionnaire items, tables and graphs were generated. Tables were used to interpret the data.

Below is a data analysis of every question on the questionnaire:

Table 8.1 Shows number of respondents on the basis of Gender.

Sr.No	Response	No of Respondents	Percentage (%)
1	Male	73	68.86
2	Female	31	29.24
3	Prefer not to say	2	1.8
4	Total	106	100

Interpretation: According to the table, 68.9% of responders are men, 29.24% are women, and 1.8% are unsure.

Table 8.2 Shows number of respondents on the basis of Age Category**.**

Sr. No.	Response	No of Respondents	Percentage (%)
1	20-30 years	14	13.2
2	30-40 years	61	57.54
3	40-50 years	28	26.41
4	Above 50 years	3	2.83
5	Total	106	100

Interpretation: According to the table, 13.2% of respondents are 20–30, 57.54% are 30–40, 26.41% are 40–50, and 2.83% are beyond 50.

Table 8.3 Shows number of respondents on the basis of their educational qualification**.**

Sr. No.	Response	No of Respondents	Percentage (%)
1	High School	0	0
2	Senior Secondary	1	0.96
3	Bachelors	25	24.04
4	Masters	78	75
5	Total	104	100

Interpretation: 0% of respondents have a high school diploma, 0.96 have a senior secondary diploma, 24.04% have a bachelor's degree, and 75% have a master's degree.

Table 8.4 Shows number of respondents on the basis of their Occupation.

Sr. No.	Response	No of Respondents	Percentage(%)
1	Business	3	2.83
2	Employed(Public/Private/ Educational institution)	92	86.79
3	Student	4	3.77
4	Unemployed	7	6.6
5	Total	106	100

Interpretation: 86.79% of respondents are employed (in a public, private, or educational institution), 6.6% are jobless, 3.7% are students, and 2.83 are from the business class.

Table 8.5 Shows number of respondents on the basis of their annual income.

Sr. No.	Response	No of Respondents	Percentage (%)
1	1-5 lakhs	17	17
2	5-10 lakhs	21	21
3	Above 10 lakhs	62	62
4	Total	100	100

Interpretation: It is clear from the table above that 62% of respondents make more than that.

Table 8.6 Shows number of respondents on the basis of their awareness of Finance, Banking and Investment.

Sr. No.	Response	No of Respondents	Percentage (%)
1	Yes	72	67.92
2	No	6	5.66
3	May be	28	26.41
4	Total	106	100

Interpretation: 67.92% of respondents are educated about their finances and investments, 5.66% are not, and 26.41 are unclear.

Table 8.7 Shows number of respondents on the basis of their favourite Investment tool

Sr. No.	Response	No of Respondents	Percentage (%)
1	Mutual funds	56	52.83
2	Equity	18	16.98
3	Cryptocurrency	1	0.94
4	Real Estate/ Gold	31	29.24
5	Total	106	100

Interpretation: 52.83% of respondents said mutual funds were their favourite investment, followed by real estate/gold, 16.98% equity, and 0.94% cryptocurrencies.

Table 8.8 Shows number of respondents on the basis of their Awareness of Cryptocurrency**.**

Sr. No.	Response	No of Respondents	Percentage (%)
1	Yes	74	69.81
2	No	23	21.69
3	May be	9	8.49
4	Total	106	100

Interpretation: 69.81% of respondents are aware of cryptocurrencies, compared to 21.6% who are oblivious and 8.49% who are unsure.

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Table 8.9 Shows number of respondents on the basis of their knowledge of Cryptocurrency.

Sr. No.	Response	No of Respondents	Percentage (%)
1	Basic Framework	31	34.06
2	Detailed knowledge	8	8.79
3	Just have an idea	52	57.14
4	Total	91	100

Interpretation: 57.14% of respondents have some knowledge of cryptocurrencies, 34.06% grasp its fundamentals, and 8.79% are experts.

Table 8.10 Shows number of respondents on the basis of their preference to choose Cryptocurrency as.

Sr. No.	Response	No of Respondents	Percentage (%)
1	Currency	35	38.04
2	Investment Tool	57	61.95
3	Total	92	100

Interpretation: 38.4% of respondents support cryptocurrencies as a medium of exchange, while 61.9% support it as an investment tool.

Table 8.11 Shows number of respondents on the basis of their choice whether to invest in Cryptocurrency or not.

Sr. No.	Response	No of Respondents	Percentage (%)
1	Yes	20	18.87
2	No	51	48.11
3	May be	35	33.02
4	Total	106	100

Interpretation: 18.87% of respondents are willing to invest in cryptocurrencies, 48.11% are opposed, and 33.2% are unsure.

Table 8.12 Shows number of respondents on the basis of income range.

Sr. No.	Response	No of Respondents	Percentage (%)
1	Less than 5%	41	38.68
2	5-10%	13	22.41
3	More than 10%	04	6.91
4	Total	58	100

Interpretation: According to the table, 38.68% of respondents would invest less than 5% of their annual income in cryptocurrencies, 22.41% would invest between 5 and 10%, and 6.91% would invest more than 10%.

Table 8.13 Shows number of respondents on the basis of their Return on Investment in Cryptocurrency**.**

Sr. No.	Response	No of Respondents	Percentage (%)
1	Less than 5%	19	70.37
2	5-10%	3	11.11
3	More than 10%	5	18.52
4	Total	27	100

Interpretation: 70.37% of respondents received less than 5% for their bitcoin investment, 11.1% received between 5% and 10%, and 18.52% received more than 10%.

Table 8.14 Shows number of respondents on the basis of their indifference towards Cryptocurrency**.**

Sr. No.	Response	No of Respondents	Percentage (%)
1	Legal Issues	12	16
2	Lack of confidence	42	56
3	Security issues	6	8
4	Volatility	15	20
5	Total	75	100

Interpretation: 16% of respondents were disinterested in cryptocurrencies due to legal problems, 56% lacked faith in them, 8% cited security concerns, and 20% cited their volatility.

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Table 8.15 Shows number of respondents on the basis of their view on regulation of Cryptocurrency.

Sr. No.	Response	No of Respondents	Percentage (%)
1	Strongly Disagree	23	21.7
2	Disagree	11	10.38
3	Neutral	29	27.36
4	Agree	18	16.98
5	Strongly Agree	25	23.58
6	Total	106	100

Interpretation: The above table shows if the Indian government and regulators should regularise it. 21.70% strongly disagree, 10.38% disagree, 27.36% have no opinion, 16.98% agree, and 23.58% strongly agree.

Table 8.16 Shows number of respondents on the basis of their views on current regulatory and infrastructural support for cryptocurrency in the country.

Sr. No.	Response	No of Respondents	Percentage (%)
1	Yes	3	3.19
2	No	68	72.34
3	May Be	23	24.47
4	Total	94	100

Interpretation: 72.34% of respondents agreed we lacked regulatory and infrastructure support, while 24.45% were unsure and 3.1% agreed.

9.0 FINDINGS OF THE STUDY

The following findings have been drawn from the data analysis and data interpretation.

1. Most replies are men.
2. Most responders are in the age group of 30-40 years.
3. Most respondents have a master's degree.
4. Most responders work in governmental, private, or academic institutions.
5. Most respondents make at least 10 lakhs annually.
6. Most respondents know about finance, banking, and investing.
7. Most respondents chose mutual funds, then gold and real estate.
8. 75% of respondents know about cryptocurrencies.
9. Nearly half of respondents know about cryptocurrency. Few respondents understand cryptocurrency.
10. Most respondents think cryptocurrencies should be an investment instrument.
11. Only 35% of respondents are sure about investing in cryptocurrencies. 15% of individuals buy cryptocurrencies.
12. Most willing investors want to put 5% of their annual pay into cryptocurrency.
13. Most respondents who have invested in cryptocurrency have witnessed returns of 5-10%.
14. Respondents who were not interested in cryptocurrencies cited "Lack of Confidence in Cryptocurrency," volatility, and legal issues.
15. Half of respondents think India should legalise cryptocurrencies.
16. Most respondents feel we need cryptocurrency infrastructure and regulatory assistance.

10.0 SUGGESTIONS

1. Bitcoin is decentralised, everywhere-accessible infrastructure must moderate its irregular demand. Unauthorized use decreases with regulation.
2. Prohibiting cryptocurrency will deny millennials cutting-edge technologies. Regulate.
3. Because this study was so small, the results may not reflect how individuals feel. Understanding how people view things requires a large-scale study. Therefore, officials may make educated decisions.
4. This study's ease sampling units were not taught how to complete the questionnaire or answer each question. Analysis exposes sample issues. Guided questionnaire completing could prevent this error.

11.0 CONCLUSION

Most people know about cryptocurrencies and want to include them in their financial portfolios. Lack of government and regulatory monitoring prevents them from investing. If the Indian government and regulatory organisations regulate its usage and transaction in the financial market, it might be a significant investment. Many nations have already prohibited cryptocurrencies' use in daily trade, and more are doing the same for financial market operations. Indian regulators should oversee cryptocurrency investments.

The RBI warned Indians against money laundering and terrorism financing. Cryptocurrency is an innovative instrument. Despite India's lack of regulation, bitcoin investors have increased. The Indian government should control this rising currency immediately. Indians are optimistic about cryptocurrency. Indicators suggest India will rigorously regulate cryptocurrency. The government may consider cryptocurrencies an asset, not money. Experts claim norms will increase bitcoin trading platforms' transparency. Balances prevent fraud and track international transactions. India is the leading investor in cryptocurrencies despite concerns over its future. India's cryptocurrency experience after the law passes will be interesting.

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MANAGING STRESS BY MUSIC THERAPY

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ABSTRACT
Stress Management *is a wide spectrum of techniques and psychotherapies aimed at controlling a person's level of stress, especially chronic stress, usually for the purpose of and for the motive of improving everyday functioning.* ***Music therapy*** *is the use of music to address the physical, emotional, cognitive, and social needs of a group or individual. It employs a variety of activities, such as listening to melodies, playing an instrument, drumming, writing songs, and guided imagery. Music therapy is appropriate for people of all ages, whether they are virtuosos or tone deaf, struggling with illnessesor totally healthy.*

Music therapy touches all aspects of the mind, body, brain and behavior. Music can provide a distraction for the mind, it can slow the rhythms of the body, and it can alter our mood, which in turn can influence behavior. Music is effective for relaxation and stress management. If you want to take the positive effects of listening to music to another level, try singing. Singing is one of the best ways to shift the vibrations of our thoughts and the very cells of our body, helping slow and regulate breathing and promote relaxation.

This form of treatment may be helpful for people with depression and anxiety, and it may help improve the quality of life for people with physical health problems. Anyone can engage in music therapy; you don't need a background in music to experience its beneficial effects.

Thus, this paper makes an attempt to study the stress management through a unique way through a musical therapy.

Keywords: - Stress management, Music Therapy, engaging in hobbies to reduce stress.

1. INTRODUCTION

1.1 Introduction to Stress and Stress Management Techniques

Stress is our body's Response to pressure. Many Life events or varied situations can cause stress. It is often triggered when we experienced something new, unexpected or that threatens our sense of self, or when we have no or very little control over the situation.

Different people deal with stress differently. The ability to cope up with the stressors depends on number of factors, viz. early life events, personality and social and economic circumstances. Time stress, Anticipatory stress, Situational stress and Encounter stress are the four types of stress.

Stress management is a wide spectrum of techniques and psychotherapies aimed at controlling a person's level of stress, especially chronic stress, usually for the purpose of and for the motive of improving everyday functioning.

There are things we can learn to help us cope up with the stress before it gets to be too much. These tips may help us keep stress at bay:

- Keep a positive attitude.
- Accept that there are events that we cannot control.
- Be assertive instead of aggressive. Assert your feelings, opinions, or beliefs instead of becoming angry, defensive, or passive.
- Learn to manage our time more effectively.
- Set limits appropriately and say no to requests that would create excessive stress in our life.
- Make time for hobbies and interests.
- Don't rely on alcohol, drugs to reduce the stress. Drugs and alcohol can stress your body even more.
- Seek out social support. Spend enough time with loved ones.
- Seek treatment from the professional trainer to learn more healthy ways of dealing with the stress in our life.

1.2 Music Therapy

Music therapy is the use of music to address the physical, emotional, cognitive, and social needs of a group or individual. It employs a variety of activities, such as listening to melodies, playing an instrument, drumming, writing songs, and guided imagery. Music therapy is appropriate for people of all ages, whether they are virtuosos or tone deaf, struggling with illnessesor totally healthy.

Music therapy touches all aspects of the mind, body, brain and behavior. Music canprovide a distraction for the mind, it can slow the rhythms of the body, and it can alter our mood,which in turn can influence behavior.

There are many different approaches to music therapy, including creating music,listening to music, and talking about music. Although music therapy is often used to promote mental and emotional health, it may also help improve quality of life for people coping with physical health conditions.

Music can have a profound effect on both the emotions and the body. Faster music canmake you feel more alert and concentrate better. Upbeat music can make you feel more optimistic and positive about life. A slower tempo can quiet your mind and relax your muscles, making you feel soothed while releasing the stress of the day. Music is effective for relaxation and stress management. If you want to take the positive effects of listening to music to another level, try singing. Singing is one of the best ways to shift the vibrations of our thoughts and the very cells of our body, helping slow and regulate breathing and promote relaxation. If you're going to sing, pick songs you know will put you in a better mood, inspire you, or help you relax. Pay attention to how different you feel after a few minutes of singing aloud, and make note of the songs that make youfeel best so you can return to them when you need them most.

Music therapy is a therapeutic approach that uses the naturally mood-lifting properties of music to help people improve their mental health and overall well-being. It's a goal-oriented intervention that may involve:

- Making music
- Writing songs

2. REVIEW OF LITERATURE

Yadira Albornoz (2010) music therapy on depression in adolescents and adults with substance abuse: a randomized controlled trial" The effect of group improvisational music therapy on depression in adolescents and adults with substance abuse was investigated. As for post-test measures, significant differences were found between the groups on HRSD but not the BDI. Among limitations of the study were: a smallsample size and the absence of a depression assessment tool for substance abuse.

Bill Matne (2018) In their journal entitled "Understanding literature reviews: Implications for music therapy" The purpose of this article is to present a comprehensive overview of literature review processes and methodologies by (a) describing the general purposes of narrow andbroad literature reviews, (b) providing a historical overview of broad reviews, and (c) describing broad review methodologies in relation to their respective definitions, histories, methodological characteristics, purposes, example questions, and study examples from healthcare and music therapy literature.

Loory F Gooding (2019) In their journal entitled**, "**Music Therapy with Military Populations: A Scoping Review" Current research on music therapy with military populations is growing, but moreinformation is needed to inform practice in a field. This scoping review provides an up-to-date synthesis of the available information on the use of music therapy interventions to promote healthand improve functioning in military service members.

3. RESEARCH METHODOLOGY

3.1 Objectives

1. To know the types, pros and cons of the music therapy.
2. To understand the effects of stress and ways to manage it
3. To know the techniques, activities and tools of music therapy.

3.2 Scope of study

The proposed study is to understand how the music therapy is used to manage and reduce the stress of the life. Music is one of the oldest and most popular way to manage stress and relax the body. It is very essential for the people to maintain the effective physical and mental health in order to contribute towards the productivity of an organisation. This paper tries to recommend the stress management with the help of musical therapy.

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3.3 Limitations

As the music therapy is still not that popular, it became difficult to collect the primary data.

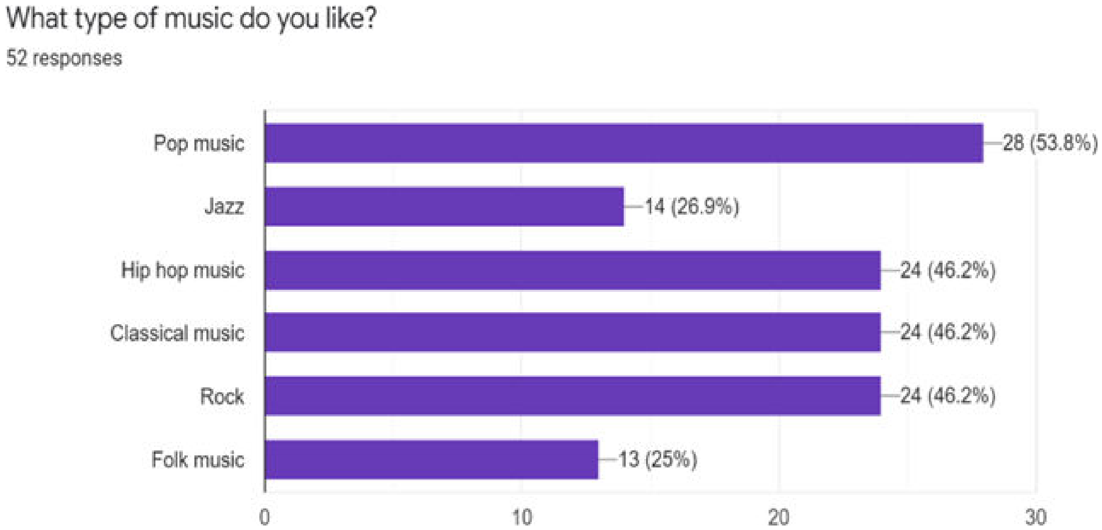
3.4 Data Collection

Primary Data: Data has been collected by the researcher himself/herself through surveys, interviews with the help of specially designed questionnaire.

Secondary Data: Newspaper, Magazines, journals, Internet facilities, etc

Sample size: 52

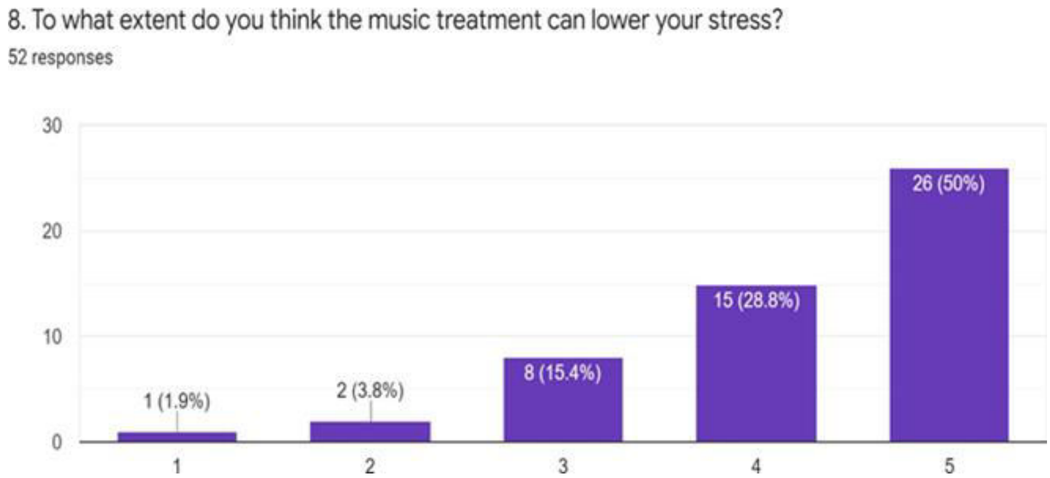
4. DATA ANALYSIS AND INTERPRETATION



CATEGORY	FREQUENCY	PERCENTAGE
Pop Music	28	53.8%
Jazz	14	26.9%
Hip Hop Music	24	46.2%
Classic Music	24	46.2%
Rock	24	46.2%
Folk Music	13	25%

INTERPRETATION

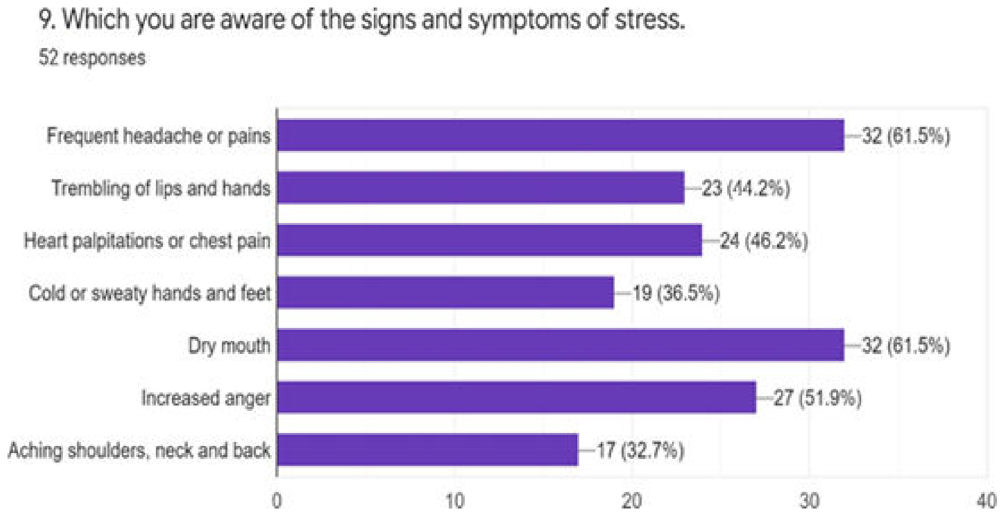
The above table shows majority of people like Pop Music.



CATEGORY	FREQUENCY	PERCENTAGE
Least 1	1	1.9%
2	2	3.8%
3	8	15.4%
4	15	28.8%
5 Most	26	50%

INTERPRETATION

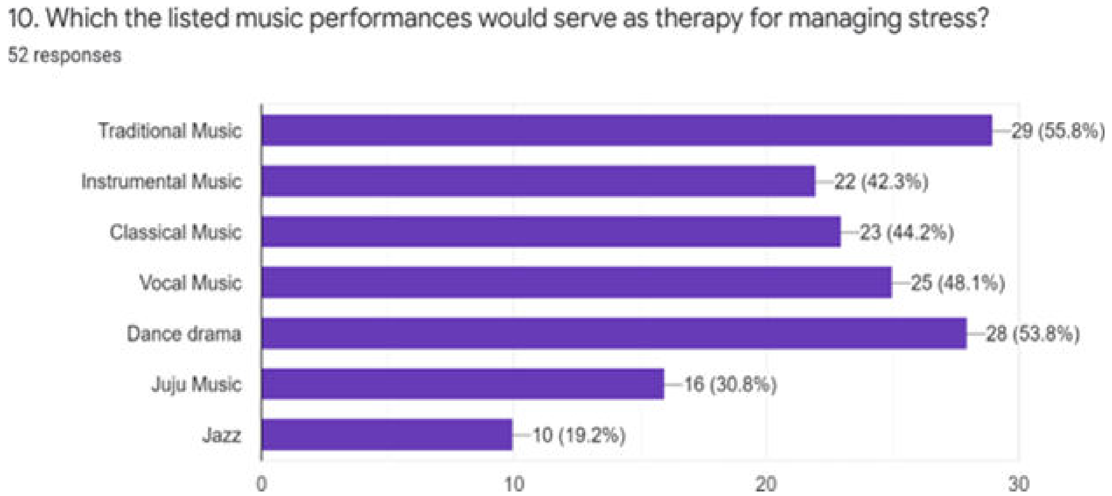
The above diagram shows the how people extent their stress usingmusic therapy the most is 50% and the least is 1.9%.



CATEGORY	FREQUENCY	PERCENTAGE
Frequent headache or pains	**32**	**61.5%**
Trembling of lips and hands	**23**	**44.2%**
Heart palpitations or chest pain	**24**	**46.2%**
Cold or sweaty hands and feet	**19**	**36.5%**
Dry mouth	**32**	**61.5%**
Increased anger	**27**	**51.9%**
Aching shoulders, neck and back	**17**	**32.7%**

INTERPRETATION

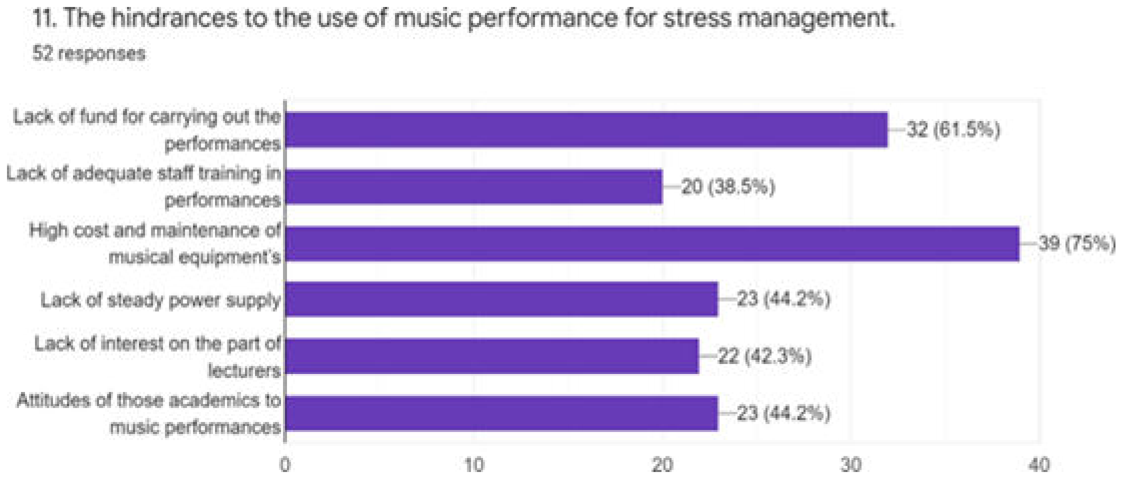
The above diagram shows us the Frequent headache or pains is 61.5%,Trembling of lips and hands is 44.2%, Heart palpitations or chest pain is 46.2%, Cold or sweaty hands and feet is 36.5%, Dry mouth is 61.5%, Increased anger is 51.9%, Aching shoulders, neck and back is 32.7%.



CATEGORY	FREQUENCY	PERCENTAGE
Traditional Music	29	55.8%
Instrumental Music	22	42.3%
Classical Music	23	44.2%
Vocal Music	25	48.1%
Dance drama	28	53.8%
Juju Music	16	30.8%
Jazz	10	19.2%

INTERPRETATION

In the above horizontal diagram shows the music performances serve as therapy for managing stress that is Traditional Music is 55.8%, Instrumental Music is 42.3%, Classical Music is 44.2%, Vocal Music is 48.1%, Dance drama is 53.8%, Juju Music is 30.8%, Jazz is 19.2%.



CATEGORY	FREQUENCY	PERCENTAGE
Lack of fund for carrying out the performances	32	61.5%
Lack of adequate staff training in performances	20	38.5%
High cost and maintenance of musical equipment's	39	75%
Lack of steady power supply	23	44.2%
Lack of interest on the part of lecturers	22	42.3%
Attitudes of those academics to music performances	23	44.2%

INTERPRETATION

The above diagram shows the hindrances to use muse is Lack of fund for 38.5%, High cost and maintenence of musical equipment's is 75%, Lack of steady power supply is 44.2%, Lack of interest on the part of lecturers is 42.3%, Attitudes of those academics to music performances is 44.2%.

CATEGORY	FREQUENCY	PERCENTAGE
Listening to melodious songs	21	40.4%
Attending to music performances	21	40.4%
Reading books on music performances	22	42.3%
Watching different music performances	31	59.6%
Playing some musical instruments	21	40.4%
Singing comfortable songs	33	63.5%
Dancing to music that appeals to you	16	30.8%

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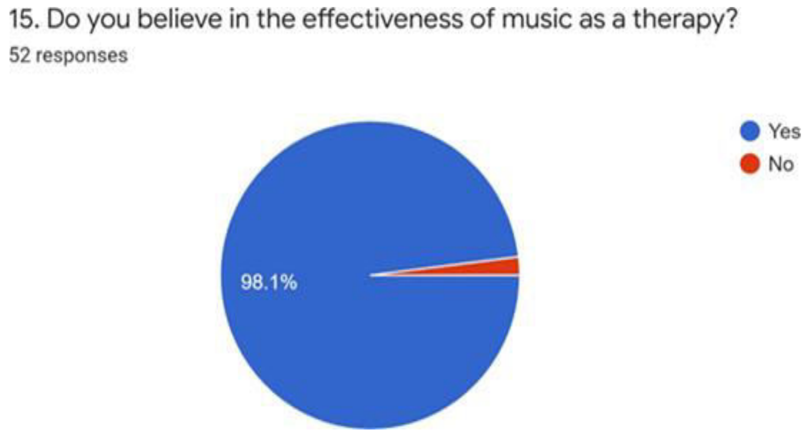
INTERPRETATION

Listening to melodious songs is 40.4%, Attending to music performances is 40.4%, Reading books on music performances is 42.3%, Watching different music performances is 59.6%, Playing some musical instruments is 40.4%, Singing comfortable songs is 63.5%, Dancing to music that appealsto you is 30.8%.



INTERPRETATION

Out of 52 respondents, 51 respondents i.e. 98.1% are sure that musicis effective as a therapy and 1 respondent i.e. 1.9% is not sure about it.

5. SUGGESTIONS

1. Experience a "sound bath" and let the music carry away.
2. Eat and drink to optimize the health.
3. Aerobic exercise has been shown to release endorphins—natural substances that help to feel better and maintain a positive attitude.
4. Stop using tobacco and nicotine products.
5. To examine the values and live by them.
6. Set realistic goals and expectations**.** Be mindful of the things that can control and work onaccepting the things that we can't control.
7. When you're feeling overwhelmed, remind yourself of what you do well. Have a healthy sense ofself-esteem.
8. You can use to relax or reduce stress, including deep breathing exercises.

- Meditation.
- Mindfulness meditation.
- Progressive muscle relaxation.
- Mental imagery relaxation.
- Relaxation to music.
- Biofeedback
- Counselling, to help you recognize and release stress.

9. Working out regularly is one of the best ways to relax your body and mind. Plus, exercise will improve your mood.
10. When you're stressed, your muscles get tense. You can help loosen them up on your own andrefresh your body by:

- Stretching
- Enjoying a massage
- Taking a hot bath or shower
- Getting a good night's sleep

11. Relaxing hobbies include things like:

- Reading
- Knitting
- Doing an art project

- Playing golf
- Watching a movie
- Doing puzzles
- Playing cards and board games

12. Guided meditation is a great way to distract yourself from the stress of day

6. CONCLUSION

Our findings indicate that music listening impacted the psychobiological stress system. Listening to music prior to a standardized stressor predominantly affected the autonomic nervous system (in terms of a faster recovery), and to a lesser degree the endocrine and psychological stress response. These findings may help better understanding the beneficial effects of music on the human body.

It is concluded that music therapy can be effectively used to overcome and prevent stress, depression and anxiety related disorders if used regularly in a prescribed manner under a supervision of a music therapist. It has a potential to be used in preventive as well as curative healthcare as an adjunct therapy. In depth research is on way to quantify the effect music has on brain functioning.

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FOOT NOTES

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FIVE YEARS OF GST: REIMAGINED FOR NEW INDIA

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ABSTRACT

The national implementation of the Goods and Services Tax at midnight on July 1st, 2017 was a path-breaking reform that was anticipated to alter the country's indirect taxation system. The implementation of the largest fiscal reform in the largest democracy in the world has fundamentally changed the Indian economy. Notwithstanding the less than perfect execution of this reform, which was to be expected, the future appears optimistic as the GST has completed five years of implementation. Five years is a considerable period of time to reflect on the reform's major accomplishments, areas where we could have done better, and most importantly the big ideas for the following five years, about which all stakeholders must start having discussions. The current study attempts to examine the GST road map in India for a successful five-year implementation.

Keywords: *Goods and Services Tax, GST Council, Input Tax Credit, Composition Scheme.*

INTRODUCTION

For any government, taxes are a significant source of income. In order to assure higher tax collections for the government and a conducive climate for businesses to thrive, sound tax regulations and hassle-free administration are essential. India's ability to expand the base of direct taxes was constrained by its status as a developing country with sizable portions of the people living in poverty. In order to generate money, the nation began to rely more on indirect taxes. Yet, with both the Center and states imposing a sizable number of taxes on goods and services, India's indirect tax structure has grown overly complex over time. The cascading impacts of these levies, which impacted both producers and consumers, had developed into a significant problem. The government of India had long felt the need to rationalise its indirect taxation system, and the implementation of the Goods and Services Tax (GST) as a single, uniform, destination-based tax on goods and services on July 1, 2017 was the most audacious and comprehensive tax reform it had ever seen. GST was anticipated to be a game-changer that would improve revenue collection, revive the nation's tax system, and make compliance easier. Consumers would benefit the most from the single, unified tax because it would reduce the overall tax burden on goods, which was between 25% and 30% under the pre-GST regime. One of the main justifications for the GST is the availability of input taxes throughout the entire value chain of production and distribution, which would help increase the competitiveness of Indian products on both the domestic and global markets. A nation-wide market with guaranteed free movement of goods between states, easier compliance, less tax evasion, and these were additional anticipated advantages.

INDIRECT TAX REFORMS

The following are the major indirect tax reforms implemented.

1. **Central Excise:** Central Excise duties were initially replaced by MODVAT, and then CENVAT applies. The number of different types of responsibilities was reduced.
2. **VAT:** In order to bring uniform tax for all the states, Value Added Tax (VAT) was introduced in the year 2005 to replace sales taxes.
3. **Service Tax:** In 1994-95, a 7% service tax was imposed on certain limited services. The tax rate was gradually raised, as were the number of taxable services. Later, 14% service tax was imposed on approximately 100 services.
4. **Customs Duty:** Customs duty on non-agricultural products was around 128% in 1990. It was gradually brought down. Customs duties are currently 11-12% on average, but they range from 0% to 150%.
5. **Goods and Services Tax:** The Goods and Services Tax (GST) is the country's largest tax reform to date. GST is a comprehensive indirect tax levied at the national level on the manufacture, sale, and consumption of goods and services. It has succeeded all indirect taxes levied by the Central and State Governments on goods and services. The GST regime came into effect on July 1, 2017, and India has adopted the dual GST model, in which both the Centre and the States levy taxes.

EVOLUTION OF GST IN INDIA

In a country like India, having a federal structure was a major challenge for the government to introduce GST. However, there is a vision that GST will simplify and bring qualitative changes in the indirect tax system in India after its implementation (Sapna Chadah & Prabhat Kumar, 2019). The successful gain in the performance of states' VAT was taken as a green signal for the introduction of GST (Viswanathan, 2016). GST is not simply VAT, but it is an improvement over VAT plus disjointed service tax (Girish Garg, 2014). When VAT is considered as a major improvement at the state and central levels compared to the earlier central excise duty at the national level and sales tax at the state level, then GST will definitely be a further improvement towards a comprehensive indirect tax system in India (Khan & Shadab, 2012).

The GST in India was implemented on 1st July 2017, but the effort for the same started in the year 2000. The following **Table 1.1** shows the development of GST:

Table 1.1: Development of Goods and Services Tax in India

Year	The Development of GST in India
1987	Shri Vishwanath Pratap Singh, the finance minister, proposed a major improvement to the excise tax system.
2000	Shri Atal Bihari Vajpayee introduced the concept "GST" by constituting a committee under the headship of West Bengal Finance Minister Shri Asmin Dasgupta to design a model of GST.
2003	A task force led by Shri Vijay Kelkar was established by the Vajpayee government to make recommendations.
2004	The Kelkar Task Force has recommended that the indirect tax system adopt a comprehensive Goods and Services Tax.
2005	The committee recommended implementing the Goods and Services Tax (GST) in place of the current indirect tax structure.
2006	As announced in the budget by Union Finance Minister Shri P. Chidambaram, GST would be implemented beginning on April 1, 2010.
Feb 2007	An empowered committee was constituted comprising the state finance minister to design and set a roadmap for the implementation of GST.
May 2007	An empowered committee proposed a joint working group to draft a report on GST.
2008	The Kelkar task force released a draft paper under the title "A Model and Roadmap for Goods and Services Tax in India."
Nov 2009	The Empowered Committee issued a detailed report on the GST.
Dec 2009	The 13th Finance Commission was constituted by the task force to give suggestions relating to GST introduction.
2010	The Finance Minister, Pranab Mukherjee, in his budget speech, announced the postponement of GST implementation.
2011	The Constitution (115th Amendment) Bill was presented in the Lok Sabha, and the GST Bill was submitted to the Yashwant Singh-led standing committee on finance.
2012	The representatives of the Indian Government, the State Governments, and the Empowered Committee came together to establish the "committee of GST Design."
2013	The report is delivered to the Lok Sabha by the legislative standing committee. The majority of the recommendations made by the Parliamentary Standing Committee and the Empowered Committee were then adopted as suggested revisions to the draft Amendment Bill.
Mar 2014	The amended draft of the Constitution (115th Amendment Bill) was sent to the EC after incorporating the revisions suggested by the EC.
June 2014	• When the 15th Lok Sabha was dissolved and the new government came into force, the constitutional (115th Amendment) Bill of 2011 became inoperative. • After receiving clearance from the recently formed Modi government, the draft Constitution Amendment Bill was forwarded to the EC.
Dec 2014	The Constitution (122nd Amendment) Bill was approved by the cabinet and introduced in the Lok Sabha.
May 2015	• The Bill was presented in the Rajya Sabha after passing in the Lok Sabha. • The Lok Sabha and Rajya Sabha Select Committees were given the bill

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	to review.
July 2015	The GST Select Committee's report was submitted.
Aug 2016	The Finance Minister, Arun Jaitely, moves the amendment Bill and it gets passed in the Rajya Sabha.
Sep 2016	The GST Council and GST Network (GSTN) were formed.
Mar 2017	The GST (Compensation to States) Bill, 2017, as well as the CGST, IGST, and UTGST legislation, were introduced in the Lok Sabha and passed.
April 2017	All four GST Bills were adopted by a cabinet under Prime Minister Modi's leadership.
May 2017	The rates of GST rules were set by the GST Council with 4 slabs of rates, namely 5%, 12%, 18% and 28%.
June 2017	The Finance Minister, Arun Jaitely, announced that GST would be introduced at midnight on June 30, 2017.
July 2017	The most expected GST was introduced and India entered the GST era.

Source: Sapna Chadah, & Prabhat Kumar. (2019). GST AND CONSUMER (Goods and Services Tax). In Centre for Consumer Studies, Indian Institute of Public Administration, New Delhi; Binh Tran-Nam. (2019). The Goods and Services Tax (GST): The Public Value of a contested reform. Successful Public Policy: Lessons from Australia and New Zealand; Gurudutta, J. P., & Bhavesh, L. A. (2018). Goods and Services Tax in India - Paradigm Shift in Taxation. International Journal for Research in Applied Science and Engineering Technology.

Constitutional Amendments

- **Article 246A:** This article has been inserted to give power to every state to make laws for GST imposed by the center and by such states. Further, this article gives exclusive power to Parliament to make laws for GST with respect to the inter-state supply of goods and services.
- **Article 269A:** This article of the constitution provides for levy and collection of inter-state supply of goods and services tax. The inter-state supply of goods and services tax will be levied and collected by the government of India, and the tax amount will be divided between the center and the states in accordance with legislation passed by the Parliament on the GST Council's recommendations. Furthermore, supply of goods and services in the course of import into the territory of India shall be considered as inter-state trade and commerce. In addition to this, Parliament formulates the principles for determining the place of supply and time of supply for inter-state trade and commerce.
- **Article 279A:** The Constitution (One Hundred and First Amendment) Act, 2016 proposes to constitute a “Goods and Services Tax Council” under this article.
- **Article 279B:** The Constitution (One Hundred and First Amendment) Act, 2016 proposes to constitute a “Goods and Services Tax Dispute Settlement Authority” under this article.
- **Article 286:** This is an existing article, where it is restricted to the states to levy and collect tax on the sale or purchase of goods. According to a revised version of this article, the state may not impose taxes on the provision of goods and/or services if the supply takes place outside India and on the import or export of goods from the territory of India.
- **Article 366:** The Constitution (101st Amendment) Act of 2017 proposes to amend this article by adding definitions for Goods and Services Tax, Services, and State.

Forms of Goods and Services Tax

GST council finalized with four different forms of GST in India applicable on inter-state and intra-state supply of goods and services. For intra-state supply of goods, CGST and SGST/UTGST is levied by both Central and States/Union Territories and for inter-state supply/import of goods and services, IGST is levied by the Central Government. Before 1st July 2017, there were various taxes existed in the earlier indirect tax structure levied and collected by state and central government separately. But with effect from 1st July 2017, with the introduction of new indirect tax, around 17 indirect taxes were subsumed under GST. Henceforth, GST is called ‘One Nation, One Tax’ by subsuming various indirect taxes and formed into one indirect tax applicable to whole India is displayed in **Figure 1.1**.

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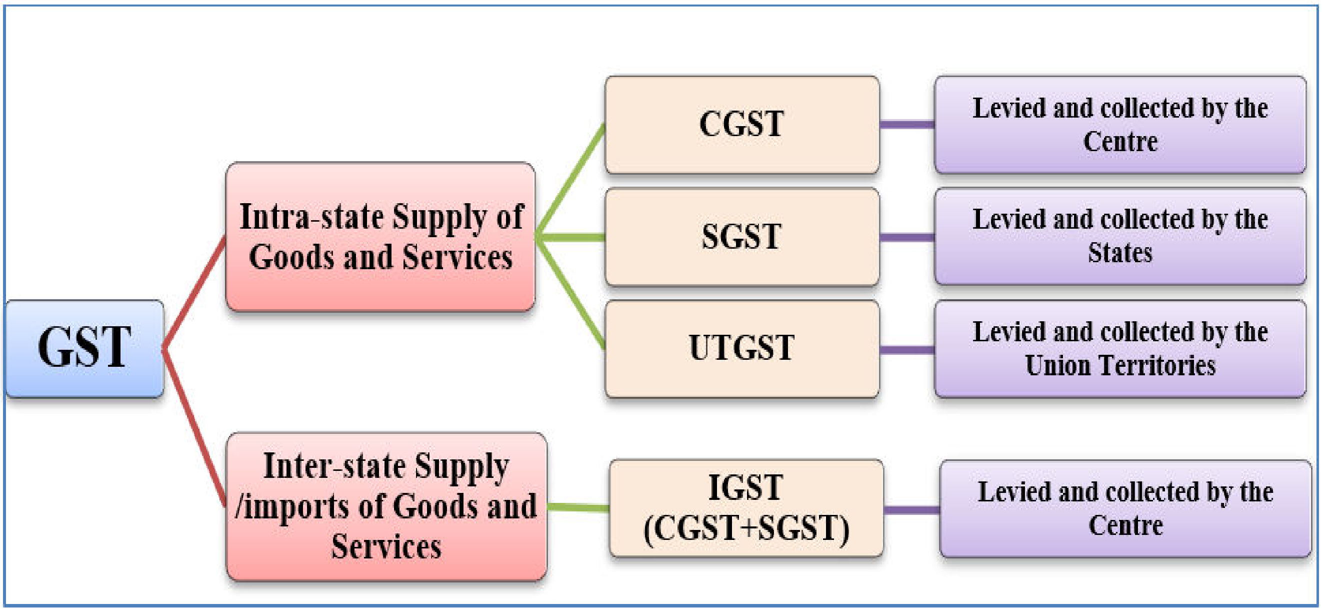
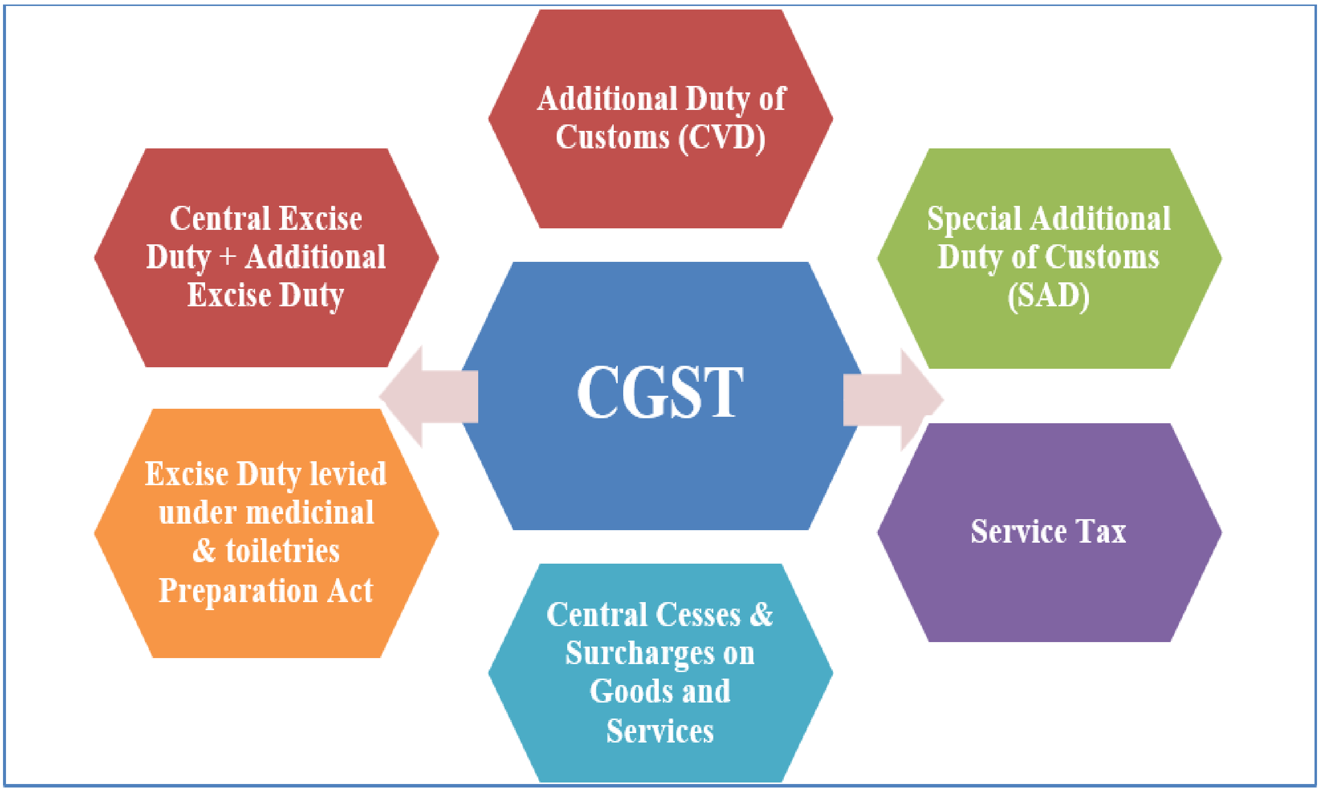
Figure 1.1: Forms of GST



Source: Primary

1. **Central Goods and Services Tax (CGST):** As per the Central Goods and Services Tax Act, 2017, CGST is levied and collected by the Central Government on intra-state supply of goods and services. Following the implementation of GST, all central taxes are subsumed under CGST, as illustrated in Figure 1.2 below.

Figure 1.2: Goods subsumed under CGST



Source: Primary

2. **State Goods and Services Tax (SGST):** SGST is covered under the State Goods and Service Tax Act, 2017. This tax is levied and collected by the state governments and union territories with state legislatures on the intra-state supply of goods and services. The National *Capital Territory of Delhi, Puducherry, Jammu and Kashmir are the Union Territories, each having their own State Legislatures. Figure 1.3 shows how the SGST Act included all state indirect taxes that were in place before GST was put into place.*

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Figure 1.3: Goods Subsumed under SGST

Source: Primary

3. **Union Territory Goods and Services Tax (UTGST):** The Union Territories without State legislatures levy and collect this tax on inter-state supply of goods and services within the union territory in accordance with the UTGST Act, 2017. The Union Territories without a State Legislature are Chandigarh, Lakshadweep, Dadra and Nagar Haveli, Daman and Diu, Ladakh, and the Andaman and Nicobar Islands.
4. **Integrated Goods and Services Tax (IGST):** Integrated Goods and Services Tax is levied, collected and regulated by the Central Government as per the Integrated Goods and Services Tax Act, 2017. The revenue collected from IGST will be divided between the central government and state governments as per the rates specified by the GST Council. IGST is applicable to

a) Inter-state supply of goods/ services in India.

b) Inter-State stock transfer of goods.

c) Import of goods/services.

Exclusions from GST

The GST introduced with the objective of ‘One Nation, One Tax’. However, some of the commodities are kept outside the purview of the GST. Some of the commodities are proposed to be brought under the bracket of GST once it is notified by the GST Council. The commodities not covered under GST are shown in **Figure 1.4**.

Figure 1.4: Items not covered under GST

Alcoholic Liquor for human consumption	State Excise plus VAT will continue to be levied.
Electricity	Electricity Duty will be levied.
Real Estate Transactions	Stamp Duty plus Property Taxes will continue to be levied.
Petroleum Products	Central Excise plus CST/VAT will continue. However, from the date notified by the GST Council, petroleum products will be subjected to levy of GST
Tobacco Products	GST plus Central Excise Duty will be applicable.

Source: Primary

Rates of Goods and Services Tax in India

The rates under the Goods and Services Tax will be levied at multiple rates ranging from 0 per cent to 28 per cent. The GST council has finalised a four-tier GST tax structure having 5%, 12%, 18% and 28% where the lower rate of tax is for essential items and higher rates for luxury and de-merits goods. The higher rate of tax would also attract an additional cess. Broadly, seven rates of GST have been notified for goods and five rates in case of services.

- The notified rates of GST for goods are - nil, 0.25%, 3%, 5%, 12%, 18% and 28%.
- The notified rates of GST for services are – nil, 5%, 12%, 18% and 28%.

Table 1.2 shows the list of GST tax slabs for different consumer goods. The Indian Government has announced GST rates for all FMCG products. For most of the FMCG products, the GST rates are neutral or marginally positive without any complexities. Before the implementation of GST, the rates of products were between 20-24%, whereas rates under GST were reduced to a maximum of 18-20%. FMCG products under GST rate slabs are being progressively reviewed from time to time to control inflation (Usha & Shekhar, 2020).

Table 1.2: List of GST Tax Slabs for Consumer Goods

0% Essential Items	***5% Common Use or Mass Consumption items***	***12% Lower Standard Rate***	***18% Higher Standard Rate***	***28% Demerit / Luxury Goods***
• Milk • Curd/Lassi/Butter Milk • Eggs • Unpacked Food grains • Unpacked Paneer • Unbranded natural honey • Salt • Kajal • Children's drawing and coloring books • Unbranded Flour • Besan • Jaggery • Fresh Vegetables • Dried Vegetables • Rakhi • Sanitary Napkins • Vibhuti • Papad • Bread • Unpacked Cereals • Fresh Fruits	• Sugar • Coffee • Tea • Coal • Sliced Mango • Ayurvedic Medicine • Skimmed milk powder • Milk food for babies • Edible oils • Chapati • Roasted coffee beans • Packed paneer • Frozen vegetables • Cashew nuts • Spices • Unbranded Namkeen • Pizza bread • Rusk • Sabudana • Packaged and labelled food items up to 25kgs • Footwear up	• Ghee • Butter • Fruit juice • Almonds • Handbags including pouches and purses • Jewellery box • Brass Kerosene Pressure Stove • Hearing aid parts and accessories • Packed coconut water • Fruits • Nuts • Pickle • Murabba • Chutney • Jam • Jelly • Namkeen • Bhujia • Frozen meat products • Packaged dry fruits • Non-AC restaurants	• Biscuits • Flavoured refined sugar • Movie tickets priced above S 100 • Power banks • Washing machine • Vacuum cleaner • Cakes, Pastries • Preserved vegetables • Soups • Suitcase, Vanity case & Briefcase • Chocolates, Ice cream • Chewing Gum, Pasta • Instant food mixes • Corn flakes, Curry paste • Mayonnaise, Salad dressings • Mixed condiments • Mixed seasonings • Branded garments • Footwear priced above ₹500 • Headgear, Soap & Hair oil • Deodorants • Shaving, After-shave items	• Cocoa Butter • Oil Chocolates • Sugar Syrups • Waffles and wafers coated with chocolate • Sunscreen • Dye • Hair clippers • Dishwasher • Motorcycles • Aircraft for personal use • Pan masala • Tobacco • Cigarette • Bidis • Aerated water

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	to ₹500 • Apparels upto₹1,000 • Real Zari • Agarbatti • Domestic LPG • Tamarind Kernel Powder • Mehandi Paste in cones • Medicines • Postage stamps • Hearing aids • Spectacles • Unbranded pre-packed and labelled cereals, pulses, curd, lassi and puffed rice.	• Exercise books • Notebooks • Work contracts • Apparel above S1000 • Tooth powder • Umbrella • Sewing machine • Tongs • Fish knives • Mobile • Manmade Yarn • Movie tickets priced below ₹100 • Playing cards • Ludo • Carom board • Chess board • Processed Food •	• Shampoo, Perfume • Washing Powder, Toiletries • Detergent, Toothpaste • Kajal pencil sticks • Tissues, Bidi Patta • Mineral water, Solar Water Heaters • Modeling Paste for Children • Stationery items like clips • Hair Shavers, Hair Curlers, Hair Dryers • Scent Sprays, Leather clothing • Wrist watches, Stoves • Cutlery, Cookers • Juicer Mixer • Telescope, Binoculars • Goggles • Artificial flowers, Artificial fruits • Computers, Printers • Food Grinder & Mixer • AC, Fridge, CCTV, TV, Fans • Water Coolers, Water Heater • Ladles, Forks, Cake servers • Spoons, Skimmers, Paper knives, • LED Lamps, Lights and Fixtures • Pencil sharpeners	

Sources: GST Rates for Goods and Services as on 18th July 2022, Goods and Services Tax, Central Board of Indirect Taxes and Customs, Ministry of Finance – Department of Revenue

Threshold Limit of Goods and Services Tax

Under GST, a common threshold to register for both CGST and SGST is applicable. With effect from April 1, 2019 (Notification No.10/2019–Central Tax dated March 7, 2019), the threshold limit for those engaged in the supply of goods and services with an annual turnover ₹20 lakhs was enhanced to ₹40 lakhs and is exempted from GST. In case of a special category of states, the limit of exemption is enhanced from ₹10 lakhs to ₹20 lakhs. However, the following person's threshold limit for the registration is continued to be ₹20 lakhs against ₹40 lakhs. By taking consideration of small and medium enterprises and to boost the MSMEs in the country, GST council allowed to avail Composition Scheme for traders, manufacturers and restaurant services with an annual turnover of ₹1.5 crores.

GST Collections in India:

Over a span of Five years, the GST collections in India have increased. The government has achieved its milestone by increasing the tax base. GST collections improve the growth of the economy by way of eliminating tax evasion through anti-evasion measures, good tracking systems and effective tax administration. This has contributed to the growth of GST revenue for both the State and the Central government. However, due to the COVID-19 pandemic, the government an announced lockdown in the country, which affected the country's GST revenue in some of the months. The Finance Ministry said, "GST collections did not decline during the second wave of COVID-19 pandemic. However, the businesses did not comply with the GST return filing requirements." **Table 1.3** shows the GST collections in India from its implementation, that is, from the financial year 2017-18 to 2021-22.

Table 1.3: GST Collections in India Month-Wise

Month	Total GST Collection (₹ in crore)					
	2017-18	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
April	-	1,03,459	1,13,65	32,172	1,41,384	1,65,540
May	-	94,016	1,00,289	62,151	1,02,709	1,40,885
June	-	95,610	99,938	90,917	92,849	1,44,616
July	21,572	96,483	1,02,083	87,422	1,16,393	1,48,995
August	95,633	93,960	98,203	86,449	1,12,020	1,43,612
September	94,064	94,442	91,917	95,480	1,17,010	1,47,686
October	93,333	1,00,710	95,380	1,05,155	1,30,127	1,51,718
November	83,780	97,637	1,03,491	1,04,963	1,31,526	1,45,867
December	84,314	94,726	1,03,184	1,15,174	1,29,780	1,49,507
January	89,825	1,02,503	1,10,818	1,19,875	1,40,986	1,55,922
February	85,962	97,247	1,05,366	1,13,143	1,33,026	1,49,577
March	92,617	1,06,577	97,597	1,23,902	1,42,095	NA
Total	**7,40,650**	**11,77,369**	**12,22,131**	**11,36,803**	**14,89,905**	
Percentage Increase (%)	**-**	**59%**	**3.8%**	**-6.9%**	**31.06%**	

Source: http://gstcouncil.gov.in/gst-revenue

From the above **Table 1.3**, it is clear that GST revenue collections in India are increasing year after year. Total revenue collection for the year 2018-19 is reached ₹11,77,369 crores i.e. 59% more compared to the previous year's collection. This may be because of the increase in the number of registrations, increase in the number of filing of returns and the registered dealers' becoming familiar with the new taxation system in fulfilling the GST compliance. The data during 2019-20 revealed a total of ₹12,22,131 crores of revenue had been collected. The revenue for the year is slightly increased at 3.8% compared to the financial year 2018-19. Then, during 2020-21, the revenue collection is slightly decreased to the extent of 6.9%. This is because of the COVID-19 pandemic and lockdown effect. However, from October 2020, the trend of GST revenue collections is increased. The GST collected during March 2022 was ₹1,42,095 crores, which is recorded as the highest since the introduction of GST. The GST revenue has shown a steady increase during the year 2021-22 except in the months of May and June 2021 due to lockdown because of the second wave effect of the COVID – 19 pandemic. However, the GST collection shows a year after year, which indicates the sustained economic recovery. GST collections increased by 40% in 2021-22 compared to 2020-21. Good tracking system and effective tax administration have contributed to the steady increase in tax revenue. In addition to this, during the year 2022-23, GST collection crosses ₹1.4 lakhs, which marks 7th time since inception. The GST collection in April 2022 was recorded as the first highest revenue collection in India.

Major Achievements from Past Five years:

- **Broader Tax Base:** In July 2017, more than 63.9 lakh taxpayers switched to the GST. As of June 2022, this figure had more than doubled to 1.38 crore taxpayers.
- **Production of e-way bills:** The e-way site has over 53 lakh taxpayers and 67,000 transporters enrolled, and this generates an average of 7.81 crore e-way bills each month. A total of 292 crore e-way invoices have been created since the launch of the system, of which 42% are for the interstate transportation of products.

- **Increase in average collection:** From ₹ 1.04 lakh crore in 2020–21 to ₹ 1.24 lakh crore in 2021–22, the average monthly collection has increased. The average revenue for the first two months of current year is ₹ 1.53 lakh crore.
- **Tax arbitrage has been removed by GST:** Under the CST/VAT regime, there was tax arbitrage between the states.
- **Improvement in the logistics supply chain:** The efficiencies of the logistics supply chain have multiplied as a result of the e-way bills and the absence of this arbitrage under the IGST.
- **Reduction in Tax Rates:** Prior to the introduction of the GST, the total rates for the federal government and the states were greater than 31% for the majority of goods.

The rates for more than 400 commodities and 80 services have been lowered as a result of the GST. Only sinful and opulent goods carry the highest 28% rate.

About 200 of the 230 products that made up the 28 percent slab have been moved to the lower slabs.

- **Particular focus to MSMEs:** The demands of micro, small, and medium-sized firms (MSMEs) have received particular attention, and it is being prioritised to keep their tax and compliance burdens to a minimum.

It was also crucial to keep them connected to supply chains for IT purposes, therefore the threshold exemption level for items was increased from ₹ 20 lakh to ₹ 40 lakh.

The rollout of the quarterly returns and monthly payments (QRMP) programme, which could benefit 89% of taxpayers.

- **Automatic IGST:** The GST authorities' system of automated IGST refunds and refunds of accrued input tax credits (ITC) to exporters has simplified and simplified the process of neutralising input taxes on exports of goods and services.

CONCLUSION:

Tax reforms are an integral part of the development process of any country. GST has been a major tax reform in an emerging country like India since independence. India has successfully completed five years of GST implementation. The tax reform created a tax administration that is assessment-friendly and increased public awareness of the indirect tax system. Also, future economic digitisation may be aided by GSTN interaction with other systems. The GST system improved corporate productivity and efficiency. By reducing inter-state restrictions, it helped make doing business easier, formalised the Indian economy, and improved transportation and warehousing for industry.

The number of indirect taxpayers has increased by 50%, according to statistics from GST registrations. The number of voluntary registrations significantly rose, particularly from small businesses seeking Input Tax Credits after making purchases from major businesses (ITC). Tax return filing has significantly improved.

Hopefully, progress will be made towards creating a flawless GST system. To increase the tax base, the tax filing procedure needs to be made simpler. Additionally, the transition to a three-slab tax structure should be accelerated in order to rationalise the GST tax structure.

The administration may want to further streamline the complicated input tax credit and categorization systems. Input tax credit cannot flow smoothly since major items including electricity, alcohol, petroleum products, and real estate are still not included by the GST. It is hoped that the process would continue to adjust the system to make the country a national market.

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A COMPARATIVE ANALYSIS OF CARTEL LENIENCY SCHEMES IN INDIA AND USA

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INTRODUCTION

A rising economy's main characteristic is its dependence on the commerce taking place there. The essential foundation of a business is that everything it does is done to maximize profit and minimize loss. A business must eliminate its rivals in order to increase profits because the more businesses there are in a given industry, the slimmer the odds of doing so.

Creating a cartel by joining forces with other businesses is one strategy to maximize profit. However, it takes a lot of time to investigate and establish evidence against cartels, making it difficult to spot them. Therefore, in terms of competition law, these cartels are viewed as malignancies. While most cartels are found in illegal industries like smuggling or the drug trade, these cartels are created to control the pricing of all lawfully sold goods and services.

The cartels are able to restrict output and act collectively like a single monopolistic strategy in addition to controlling market prices. This cartel manages to shift the surplus income from the consumer to the producer as a result of price increases, and this is regarded as a "deadweight welfare loss" to society.

The Organization for Economic Cooperation and Development (OECD) has defined four primary categories relating the behaviour of the cartel: price fixing, restricted output, allocation of market, and bid rigging. This is due to the detrimental impact cartels have on consumers. Hardcore cartel is the most serious example of a violation of competition law, according to the OECD's advice for successful action in 1998. The main goal of a leniency program is to find such extreme cartels. A leniency program controls and identifies these cartels while providing exemptions or a lighter punishment in exchange for substantial information and full cooperation from the individual or business serving as the informant. 40% of the world's oil production is produced by the OPEC nations. The decisions made by OPEC, which holds a cartel position in this situation, to reduce or raise production in order to stabilise the price are altering the pricing and directly affecting the economy of our nation. OPEC does this to bring about market stabilization for oil. It is significant to remember that OPEC's operations are regarded as legal because to the protection provided by US foreign trade law. One instance of a legalized cartel is this one.

The drug trafficking organizations in South America are the best illustration of an illegal cartel.

Since they meet the requirements of a cartel, they are frequently referred to as drug cartels. As the name implies, these cartels regulate the cost and availability of narcotics by a set of agreements they have negotiated among themselves. The Medellin Cartel, which was run by the late Pablo Escobar from the 1980s until his murder in 1993, is the most well-known and notorious cartel. Other than the South American drug cartels, the illegal trade of the Mexican, Italian, and Russian cartels is frequently highlighted.

CARTEL LENIENCY IN INDIA

Cartels & Leniency in India

The CCI is the statutory authority in charge of competition law enforcement. The Competition Act of 2002 is the statute that is responsible for regulating and enforcing cartel rules in India. The Competition Commission of India is in charge of the Act. In every given instance, the decision of the Competition Commission can be subjected to judicial review by the National Company Law Appellate Tribunal (NCLAT), as well as, if required, the Supreme Court of India. Because of the Competition Commission Act of 2002, the civil courts are not allowed to enforce any decision issued by the Commission or NCLAT in accordance with the governing act. This restriction applies to any decision made in accordance with the act.

Mergers and acquisitions are common outcomes of the natural tendency among businesses to form alliances out of a shared concern about falling behind in their respective markets. Strong competing businesses typically have an advantage when it comes to capturing large amounts of public attention for the purpose of selling their goods and services. As a result, those businesses often choose to consolidate their operations in order to achieve higher levels of collective profitability and reduce the amount of market share held by their strongest rivals.

Cartels are horizontal agreements that include limiting technological innovation, production, or supply; regulating prices, discounts, regions of operation, or clients; and collusive bidding. Other elements of cartels include the following: In India, it is generally accepted that AAECs are caused by cartels, and as a result, cartels are regarded as illegal in this nation. The Constitution of India acts as the basis for antitrust law in the country, which provides an answer to the question of what social good competition law serves. The Indian government in the past did not make sufficient efforts to address the problems caused by cartels in India. Any kind of commercial restrictions had to be reported to India's Monopolies Commission first. This was a legal requirement.

Purpose of a leniency Program

A leniency programme is available for those businesses or individuals who come forward to disclose their role and the functioning of a cartel to the Commission and cooperate with subsequent investigations. As a reward for their assistance, these individuals or businesses are eligible for a reduction in their penalty or even complete amnesty from the charge altogether. Because of their efficacy in breaking up criminal organizations, such initiatives for uncovering cartels are implemented everywhere in the world. The Competition Commission of India (Lesser Penalty) Regulations, 2009 were drafted by the CCI with the intention of facilitating cartel leniency discovery.

LENIENCY PROVISIONS UNDER THE COMPETITION ACT 2002

Any agreement between rivals is forbidden by the Indian Competition Act, 2002's sections 3(1) and 3(3) if it has or is likely to have an appreciable adverse effect on competition (AAEC) in the relevant market. The Competition Commission of India (Lesser Penalty) Regulations 2009 and Section 46 of the Competition Act codify and regulate India's leniency law with regard to cartel investigations.

Section 46 states that the commission may impose a lesser or null penalty than the leviable penalty under the Act if it is convinced that a member of a cartel that has allegedly violated Section 3 of the Act has disclosed information about such violations and such disclosure has been successful.

THE REGULATION-COMPETITION COMMISSION OF INDIA (LESSER PENALTY) REGULATIONS, 2009:

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Section 46 states that the commission may impose a lesser or null penalty than the leviable penalty under the Act if it is convinced that a member of a cartel that has allegedly violated Section 3 of the Act has disclosed information about such violations and such disclosure has been successful.

AMENDMENT IN 2017:

In order to enhance and streamline its leniency program by drawing better-quality evidence, the CCI modified the Lesser Penalty Regulations in August 2017.

Regulations that increased the scope of the lesser penalty:

- Individual members are now allowed to approach CCI with proof of bid rigging thanks to the amendment.
- The filing of information about people who participated in the cartel on the applicant's behalf was included as a condition for applicants seeking leniency. Therefore, the application can defend its cartel-involved personnel by requesting immunity for them while requesting leniency.
- Removed the previous limit on the number of Lenieo applicants who could be granted leniency:
- The Act had previously prohibited CCI from granting immunity to more than three applicants. However, this restriction has been lifted as a result of the modification, allowing more applications to be granted leniency. If subsequent applicants assist in disclosing crucial information that "significantly adds value" to the evidence already in the possession of CCI or the Director General, they will be eligible for a penalty waiver of up to 30%. Second applicants must also meet these requirements.
- Permits Parties To Examine Files For Information Submitted By Applicants.
- The general regulations' provisions for case file examination in relation to the data given by applicants under the Lesser Penalty Regulations are likewise covered by the change.
- The "nonconfidential" portion of the Director General's report is then made available for examination by the parties and shared by CCI with the parties in question.

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CONDITIONS TO AVAIL BENEFITS OF LENIENCY PROVISIONS:

The CCI has the authority to grant cartels full immunity from administrative fines imposed on them pursuant to the Competition Act. If a candidate meets the criteria listed below, they will receive a reduction in administrative penalties (up to 100% if they are the first candidate):

He must stop participating in the cartel as soon as the information is disclosed, and he must also divulge crucial details on the suspected Competition Act infringement. He must cooperate honestly, completely, continuously, and quickly during the inquiry period, and he must not withhold, alter, or destroy any information, documents, or evidence that the commission deems pertinent and necessary for the establishment of a cartel. Additional restrictions may also be imposed by the CCI depending on the specifics of a case.

In addition to receiving leniency, the first applicant must provide crucial information by providing evidence against the cartel that will allow the commission to: Form an opinion on the existence of a cartel prima facie where the CCI cannot do so in the absence of evidence; Establish a violation of Section 3 by the cartel by providing evidence that neither the Director General nor the CCI have.

SCALE OF LENIENCY FROM ADMINISTRATIVE PENALTIES

With regard to administrative penalties, the Lesser Penalty Regulations employ a sliding scale of leniency. Under the Lesser Penalty Regulations, administrative penalties have several degrees of leniency. If they make a disclosure with enough supporting information, the second or third applicant in priority status may also be granted the benefit of a penalty reduction of up to 50% and 30% of the maximum permitted penalty, respectively.

The Lesser Penalty Regulations were modified by the CCI in August 2017 as was previously reported (amendment). Initially, the Lesser Penalty Regulations only allowed up to three leniency applicants to get a fine reduction on a first-come, first-served basis.

The modification removed this restriction, allowing more applicants to take advantage of the Lesser Penalty Regulations. All applications after the third are now qualified for a reduction in fine of up to 30% of the total fine.

MARKERS

According to the Competition Act's rules, the applicant submitting a leniency application may apply for a marker to secure a place in the line for leniency or immunity. This is carried out in order to compile the data and proof needed to perfect the marker.

The procedures listed below should be followed in order to apply for a marker:

Marker letters should be delivered verbally or in writing to CCI. A marker letter can alternatively be thought of as an email.

Within 15 days of the day the marker letter was submitted to CCI, the applicant must submit a thorough written request for mercy. However, if the applicant does not file a leniency application within 15 days, both his or her priority status and the benefit of receiving a reduced penalty are forfeited.

INFORMATION/EVIDENCE

After submitting a marker application, the applicant should take the following factors into account when submitting a leniency application in accordance with reduced penalty requirements.

- Names and addresses listed in the application should be accurate.
- If the applicant lives outside of India, the address, phone number, and other contact information for India should be provided.
- The application must include a thorough description of all the alleged cartel's arrangements, together with its goals and objectives, and all the actions taken to attain those goals and objectives.

WITHDRAWAL OF LENIENCY

Once the application is submitted and approved by CCI, an investigation into the alleged cartel is then launched. The CCI has the right to revoke the leniency at any time throughout the investigation if it determines that the applicant has not complied with the requirements placed on him or has not cooperated with the commission. However, if leniency is revoked, it will be announced via CCI's final order following the conclusion of the investigation.

Under no circumstances will the inquiry proceedings be informed of the withdrawal of leniency. The applicants still qualify for leniency in accordance with their applications even if one applicant's leniency is removed.

CONFIDENTIALITY AND DISCLOSURE

As seen by the facts described above, applicants are required to provide information, and in doing so, they reveal their own identities. Because of this, CCI abides by the identification and information disclosure rules, which forbid CCI from disclosing an individual's identify or personal data.

Exception to this rule are:

- The applicant's identity must be kept private by the Director General and CCI, unless: Disclosure is mandated by law.
- The applicant has publicly published this information and has given written consent to the disclosure.
- Likewise, subject to specific restrictions, CCI and DG are required to maintain the information, records, and evidence's confidentiality.

CASE LAWS:

BRUSHLESS DC FANS CASE

According to instructions from CCI, which had obtained the relevant information from CBI, DG launched a probe on its own. The research sent to CCI indicated a cartel relationship between the brushless fan manufacturers and suppliers. This report related to Bharat Earth Movers Limited's supply of Brushless fans and other electrical products for Indian Railways tenders. During the DG's investigation, one of the cartel's participants requested leniency. Later, CCI admitted that the revelation provided by the petitioner in exchange for leniency constituted important proof that a cartel existed.

Nevertheless, despite this recognition, the petitioner only received a reduced leniency of 75%. This is due to the fact that at the time the disclosure was made, the CCI already had material in its possession and had formed a preliminary opinion regarding the existence of a cartel. It is crucial to remember that a disclosure with all pertinent facts and supporting documentation must be presented to the CCI before the investigation begins in order to receive full leniency.

ZINC CARBON DRY-CELL BATTERIES

Panasonic Energy India CO. Ltd. was one of the parties involved in this case. Panasonic, hereafter referred to as, submitted a request for leniency to the CCI. Based on this application, the CCI then launched an inquiry to find evidence of a cartel between Panasonic, Eveready Industries India Ltd. (Eveready), and Indo National Ltd. for dry-cell batteries (Nippo). As soon as Panasonic was recognized as the first application for leniency, the association of Indian Dry Cell Producers (AIDCM) was also accorded full immunity by CCI. It was only after Panasonic's admissions that a cartel between these dry-cell manufacturers was identified. However, Eveready and Nippo also requested leniency at a later time and received leniency of 30% and 20%, respectively, in exchange for their assistance with the inquiry.

investigational component. Nippo, Panasonic, and Eveready were AIDCM members. In his report, the DG asserted that he had searched the locations and carried out seizures at these three businesses while investigating the circumstances, emails, and other records of their collaboration.

CARTEL LENIENCY IN USA

Cartels have a very lengthy history in the United States. The Sherman Act was enacted, among other things, to prevent huge businesses from engaging in cartelistic practices.

A cartel is a pact, combination, conspiracy, or other arrangement that essentially subjects anyone who has a connection to or contact with another person.

Two policies make up the US program of indulgence:

- Corporate Leniency Policy
- The policy of individual leniency.

According to US antitrust legislation, the Department of Justice's (DOJ) Antitrust Division grants corporate and individual leniency (known as a "amnesty programme").

Due to the leniency policy, businesses and individuals have the opportunity to come forward and report antitrust violations before they result in criminal charges, heavy penalties, or lengthy prison terms.

REGULATORY AUTHORITY

While the DOJ is responsible for running the amnesty program, the regulatory authority is responsible for prosecuting criminal offences under federal antitrust statutes. The Antitrust Division's prosecutorial discretion, which determines whether an indictment should be brought against a company or individual who has voluntarily come forward to report any involvement leading to a criminal violation of federal antitrust laws, is where the authority for the division to administer such leniency program originated.

SCOPE OF APPLICATION

The aforementioned pardon programs are relevant to criminal offences under Section 1 of the Sherman Act, which is a major criminal law that the Antitrust Division enforces. It is significant to note that the Sherman Act's section 1 text makes no mention of where infractions fall under the purview of the criminal law or the civil law. For this reason, the Antitrust Division has a well-written policy on the criminal indictment of individuals who violate Section 1 on an ongoing basis. These are what they are:

- Price-fixing contracts.
- Bidding rigging
- Customer or market allocation.

The leniency program does not apply to civil antitrust enforcement by the DOJ or the Federal Trade Commission (FTC), but it may be applicable to all offences committed in support of criminal antitrust violations. For instance, a model corporate leniency guarantees leniency "for whatever act or crime the applicant time period covered may have committed in connection with the anti-competitive action being reported".

This demonstrates that leniency applies to more than only criminal antitrust crimes and may also apply to other associated offences that may have been committed concurrently with the antitrust violation. Mailing, faxing, or emailing bids that have been agreed upon with rivals constitutes other offences, such as mail or wire fraud violations or schemes to commit fraud, despite the fact that such behaviour is typically necessary to the conduct of a criminal anti-trust violation.

AVAILABILITY OF LENIENCY

All criminal violations of Section 1 of the Sherman Act are subject to the leniency programme. The DOJ lacks the authority to levy civil penalties for violations of Section 1 of the Sherman Act. A successful applicant for the leniency program can avoid both the criminal convictions and the civil fines. A successful leniency candidate can escape both criminal convictions and criminal fines under the leniency program.

Type A leniency, which offers immunity from prosecution when an applicant approaches the Antitrust Division before an investigation is launched, and Type B leniency, which offers immunity from prosecution when an applicant approaches the Antitrust Division after an investigation has started, are both available under the Corporate Leniency Policy of the Antitrust Division.

In reality, the Antitrust Division has not emphasized the differences between Type A and Type B leniencies because the requirements for fulfilling either a Type A or Type B leniency are comparable.

TYPE A LENIENCY

If an applicant submits their request before the inquiry begins and the following requirements are satisfied, they are eligible for type A leniency.

- The business should speak up when the antitrust division has not already been contacted by another source regarding the illegal activity.
- As soon as the business learns about the illegal behaviour, steps should be made to put an end to it.
- The business must be honest when disclosing the specifics of any misconduct and must offer the antitrust division unwavering cooperation throughout the course of the investigation.
- Unlike the private confessions of CEOs and authorities, the admission of wrongdoing is essentially a corporate act.
- If at all possible, the business should make reparation to the affected party.
- The business should not be considered the leader or creator of the illegal action because it did not persuade any other parties to engage in it.

TYPE B LENIENCY
The following prerequisites must be satisfied in order for applicants who cooperate after an investigation has started to qualify for Type B leniency:

- Because they were the first to disclose the illicit activities, the corporation is entitled to forgiveness.
- The applicant should come forward when the antitrust division has not yet gathered any evidence against them that is likely to lead to a conviction that can stand up to scrutiny.
- The applicant must guarantee that, upon becoming aware of its involvement in illicit activity, fast and decisive action was taken to end it.
- The business must be honest when disclosing the specifics of any misconduct and must offer the antitrust division unwavering cooperation throughout the course of the investigation.
- Unlike the private confessions of CEOs and authorities, the admission of wrongdoing is essentially a corporate act.
- If at all possible, the business should make reparation to the affected party.
- The antitrust division is in charge of ensuring that the concessions made in this agreement are not unjust to others in light of the company's illegal behaviour and admissions of involvement in illegal operations.
- However, if the corporation comes out before the antitrust division's inquiry into the illegal acts gets underway, the burden will be lighter. The applicant will have greater burden as the antitrust division gets closer to obtaining evidence that will lead to a conviction that can stand up in court. However, in reality, the Antitrust Division hasn't tended to reject petitioners for leniency on the grounds that they were a pioneer or an industry leader.
- Instead, the Antitrust Division has worked to minimize incentives for all participants in illegal cartel activities to voluntarily reveal their involvement to the Antitrust Division by downplaying this element.

SECOND-IN-APPLICANTS
Companies implicated in cartels may still be able to get significant benefits by going into plea agreements and cooperating with the Antitrust Division if the Antitrust Division has already granted leniency in an inquiry.

The Antitrust Division can compensate second-in applicants for their cooperation in a number of ways, including: Significantly decreasing fines; Scheduling fine payments over a period of time; Investigating the guilty executives more favourably.

APPLICATION PROCEEDINGS

MARKERS:
The Antitrust Division gives a requester for leniency a marker for a set amount of time to guarantee its place at the head of the line for leniency while the division gathers further data via an internal inquiry to support the leniency request. No other business can move up the line ahead of the applicant who has been given the marker while it is in place.

INFORMATION AND EVIDENCE
Throughout the Antitrust Division's inquiry, the applicant must offer full, continuous, and total cooperation.

The following is expected of applicants: Give a thorough explanation of all information about the reported anticompetitive action that is known to the applicant.

Use its best efforts to ensure that the applicant's current directors, officers, and employees continue to cooperate fully and honestly, and to encourage them to voluntarily provide the Antitrust Division with any pertinent information they may possess. Enable their current employees to be available for any inquiries the Antitrust Division may have.

WITHDRAWAL OF LENIENCY
If the applicant doesn't follow the conditions outlined in its conditional leniency agreement, leniency may be withdrawn. The Antitrust Division will notify the applicant's attorney in writing before making a final decision to rescind a corporate applicant's conditional leniency.

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CONFIDENTIALITY AND DISCLOSURE

The antitrust division will not make the leniency applicant's identify public until a court order authorising its disclosure in connection with the litigation has been issued. In a similar vein, the antitrust division does not divulge any information submitted by the leniency application until it is mandated by the court in order to move forward with litigation.

CASE LAWS:

UNITED STATES V. TRENTON POTTERIES CO.22

In this case, a Sherman Act complaint was filed and it was claimed that the respondents hold 82 percent of the market share in the manufacturing and distribution of a particular type of pottery in the United States for collusion in price fixing and restricting interstate business. The responders argued that the set costs weren't excessive in their response. The Court reiterated in its ruling that the ability to conspire for price fixing, whether reasonable or not, includes the capacity to control and limit price fixation, which is by nature arbitrary.

ARIZONA V. MARICOPA COUNTY MEDICAL SOCIETY

This case is about price fixing, which is how cartels set their rates. Arizonan doctors have established a number of foundations to receive free medical care as a substitute for their health insurance policies. For payment of their medical services, doctors demanded a very high cost from the insurance plan's policyholders. The state of Arizona filed a lawsuit in court alleging a breach of Section 1 of the Sherman Act as well as an alleged illegal price-fixing conspiracy. The US Supreme Court ruled that this practise of fixing prices by physicians, other healthcare workers, and others in the relevant market violates the Sherman Act because it meets the criteria for horizontal price fixing.

CONCLUSION

One of the main issues with the world's competition laws is the existence of cartels. In the current situation, these cartels have developed to have a global impact and are no longer focused on particular economies. In today's globally interconnected society, it is inevitable that a cartel of substantial scale will raise a product's price out of self-interest.

Therefore, it is imperative to increase the credibility of the leniency programs. Therefore, a Leniency Program that is predictable and transparent will be more effective and efficient in enforcing its terms.

Through this comparison of the Leniency Programs in India and the US, this has been brought to light. It is evident from the incidents listed above that both nations have lax policies that encourage people or businesses to come forward and reveal sensitive relevant information to the CCI or DOJ. Both of the leniency programs make sure that appropriate disclosure standards are in place so that the applicant's identity and personal information are kept private, further enhancing their sense of security. The applicant's receiving a reduced punishment also significantly contributes to the persons or businesses engaging in cartel criminal actions coming out and disclosing their involvement.

Therefore, an efficient and reliable leniency program benefits both the government and the applicant. While the applicant receives a reduced penalty or complete exemption, the authority gets to look into the case and gather evidence against the cartel. This is an excellent example of maintaining the status quo perfectly.

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REDEVELOPMENT OF HOUSING SOCIETIES – IMPACT ON INHABITANTS LIFE STYLE AND COST OF LIVING

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INTRODUCTION

Redevelopment of housing societies is a complex process that requires urgent attention. The tragedy of Joshimath is a stark reminder of the consequences of neglecting the preservation of natural resources. Dilapidated structures are putting lives at risk and causing immense suffering. To ensure the safety of residents and the preservation of natural resources, it is essential to develop a comprehensive redevelopment plan. This plan should include the identification of suitable sites for redevelopment, the development of a timeline for the project, and the allocation of resources to ensure its successful completion. Additionally, the plan should include measures to ensure that the redevelopment process is transparent and accountable. Furthermore, it is important to involve the local community in the redevelopment process. This will ensure that the project is tailored to the needs of the community and that the project is completed in a timely and efficient manner. Additionally, it is important to ensure that the redevelopment process is conducted in an environmentally sustainable manner. This will ensure that the project does not have a negative impact on the environment and that the natural resources are preserved. Finally, it is important to ensure that the redevelopment process is conducted in a socially responsible manner. This will ensure that the project is beneficial to the local community and that the rights of the residents are respected. Redevelopment of housing societies is a complex process that requires careful planning and consideration. By following the steps outlined above, it is possible to ensure that the redevelopment process is conducted in a safe, sustainable, and socially responsible manner.

Redevelopment is to convert dilapidated old structures into new structures and also to bring about a better living conditions. Redevelopment could be in slums, chawls or flats.

The tendency to go through this process is a tedious, time consuming at times testing of patience, a truck load of documentation and endless meetings to find the solution to have the Redevelopment underway.

Societies which are those structures which are more than 30 years old and have started to charge more to its Inhabitants and are more costly than to stay in them.

As per the law of the land and as India has a federal structure between central and state the authority to have it's own Law in the hands of the respective state as per Maharashtra RERA the current rule stands of giving a 33% extra floor space to the Inhabitants. So for an example point of view an old building in Mumbai with 35 year old of existence a family residing in 500 sq. ft. carpet area would be entitled to get approximately an area of 667 sq. ft. or to say in a simple words a 1 Bedroom Hall Kitchen (BHK) will be converted into 2 BHK house.

This will mean an extra room to the inhabitants which in a way would be joy for the inhabitants as they would not be paying anything for the extra space in the city of Mumbai.

Mumbai has seen many disasters where building of the nature of Laxmi Chaya which just fell like a pack of cards and took lives of 56 inhabitants. There are many such stories of devastation and loss of lives which have taken away everything from the inhabitants.

As per a report on moneycontrol.com more than 10,000 dilapidated structures are there in Mumbai. In the year 2022 BMC forcibly evacuated 745 building and many others were given notices for evacuation.

Where one side lies the harsh problems of staying in the building like such there is a joy of residing in a new and redeveloped premises where new dreams are envisioned, new aspirations are sought, and new life is started altogether.

Dreams of a new bigger house from a 1 Bed home to a 1 BHK home or from a 1 BHK home to 2 BHK home this dream of owning a house is truly a Mumbai dream for every person as he sits on a property where a sq.ft rate is on an average for western suburb of Mumbai is 20,000 and a house of 400 sq.ft. will entitlement to an asset of INR 80,00,000/- which for a standard family of 4 individuals will be a dream to achieve.

REVIEW OF LITERATURE:

Vinit Mukhija (2002) explained that in the mid-1980s, the state government of Maharashtra, India, introduced a slum redevelopment strategy in its capital city, Mumbai (Bombay). In contrast to traditional housing improvement strategies that focus primarily on legalizing the land tenure of residents, slum redevelopment is a more complex strategy. It includes the decimation of existing ghettos and the redevelopment of new, higher thickness, medium-ascent flat pieces, including, totally cross-sponsored lodging for the first ghetto occupants. Mumbai's understanding, archived through a solitary contextual analysis in his paper, outlines that as opposed to the ordinary concentrate just on private property rights, overhauling strategy must be founded on a separated perspective of property rights. Moreover, arrangement should likewise consider the property estimations, the physical qualities of the genuine property (basic resource), and the exchange among property rights, property estimations and physical traits. Second, his paper showed that under specific conditions, there is an electorate among ghetto tenants for complex activities, similar to redevelopment. This recommends organizers ought to be doubtful about mainstream, oversimplified myths with respect to low-pay lodging inclinations. However, slum redevelopment's slow pace also implies that planners need to be cautious in their enthusiasm for redevelopment.

Kundu, N. (2003) has stated a case in point is that of slum dwellers who are relocated to housing in areas where employment is scarce and/or infrastructure is poor. In these cases, the livability of the house is compromised, and beneficiaries either refuse to move, or let out the affordable houses that have been constructed for them. For example, ghetto inhabitants in Kolkata declined to move since they had no place for domesticated animals and poultry in their recently built flats.

Raftery J, (2003). In his book demystifies risk analysis and enables decision makers to improve the quality of their judgments by providing more realistic information on which to base decisions. With a reasonable approach, limiting language, science and scholastic references, the creator gives professionals clear portrayals of the idea of hazard and hazard mentality. He also describes techniques of analysis and assesses their strengths and weaknesses.

Patel (2003). This volume deals with contemporary Mumbai or Bombay. In his paper in this volume he investigates and clarify what Bombay has moved toward becoming in its shape and examples of living toward the start of the 21st century. It looks at the implications of change in Mumbai and the ways in which it has affected its people

Shaw, (2004). In his book uses the case of the Navi Mumbai urban project to bring out huge numbers of the issues intrinsic in the urbanization procedure and in the idea of urban arrangement making in post-provincial India. It represents how even another city, worked without any preparation, is loaded with social and financial logical inconsistencies - very much arranged and overhauled zones existing together with ghettos and shanties. The work addresses a portion of the acknowledged answers for urban approach particularly concerning urban land and appropriation of municipal foundation. Navi Mumbai is being utilized as a model for building new towns outside different urban communities in India. This nitty gritty contextual investigation of Navi Mumbai uncovers the qualities and shortcomings of this model of urbanization and indicates the policy directions that can obliterate the duality that has characterized the Indian city all through the twentieth century.

OBJECTIVES OF THE STUDY:

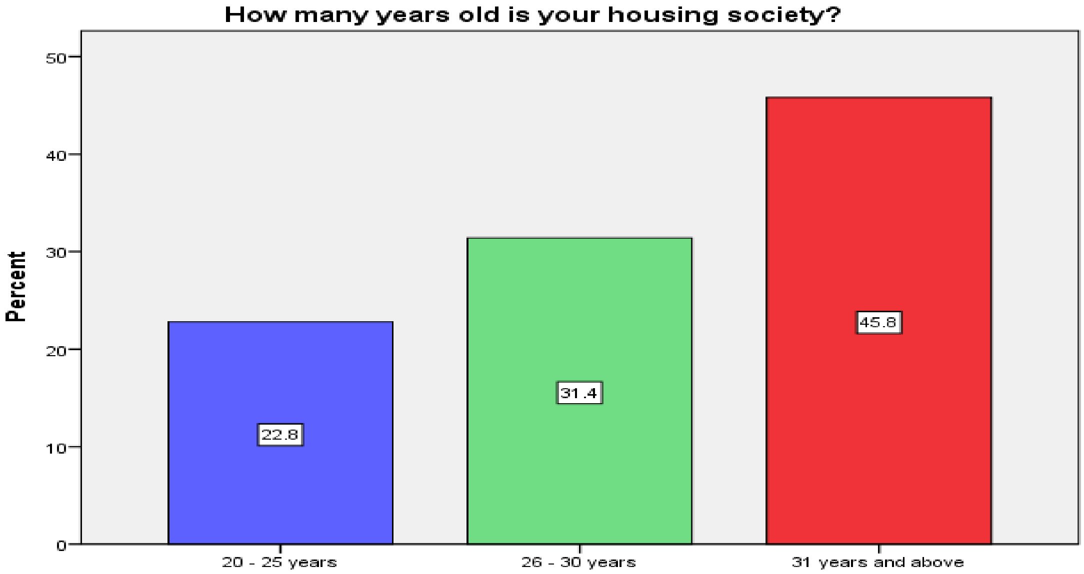
- To study the number of years old building is the housing society belongs to.
- To study the perception of realtors accepted by the society.
- To study offers given in terms of space to be given post the redevelopment of housing society.
- To study the overall change in lifestyle post redevelopment.

Table 1: How many years old is your housing society?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 - 25 years	114	22.8	22.8	22.8
	26 - 30 years	157	31.4	31.4	54.2
	31 years and above	229	45.8	45.8	100.0
	Total	500	100.0	100.0	

Source: Primary data (SPSS Method)

Graph 1



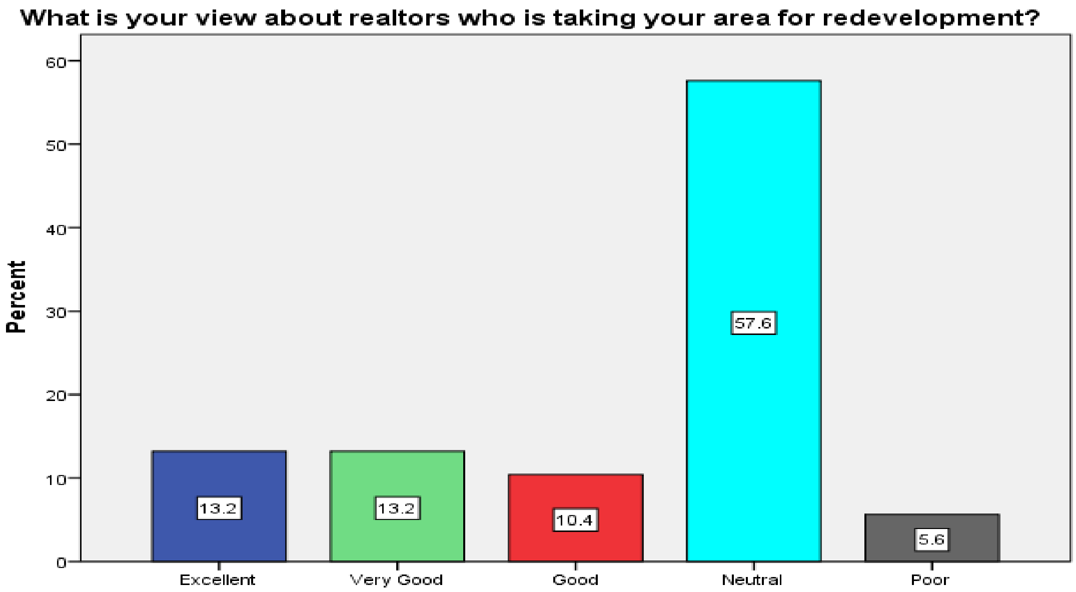
Interpretation:
From above table and graph it is observed that out of the 500 respondents 45.8% respondents have said that there housing society is more than 31years old and above. 22.8 % respondents have said that there housing society is 26-30 years old; whereas 31.4 % respondents have said that there housing society is 20-25 years old. It indicates that majority of the housing societies are more than 31 years old.

Table 2: What is your view about realtors who is taking your area for redevelopment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Excellent	66	13.2	13.2	13.2
	Very Good	66	13.2	13.2	26.4
	Good	52	10.4	10.4	36.8
	Neutral	288	57.6	57.6	94.4
	Poor	28	5.6	5.6	100.0
	Total	500	100.0	100.0	

Source: Primary data (SPSS Method)

Graph 2



Interpretation:
It is reported from the above table and graph that 13.2%, 13.2% and 10.4% respondents as residents of area have remarked ‘excellent’, ‘Very Good’ and ‘Good’ about the realtors who is taking their area for redevelopment. Whereas other respondents were neutral (57.6%) and remarked as ‘Poor (5.6%)’ about the realtors.

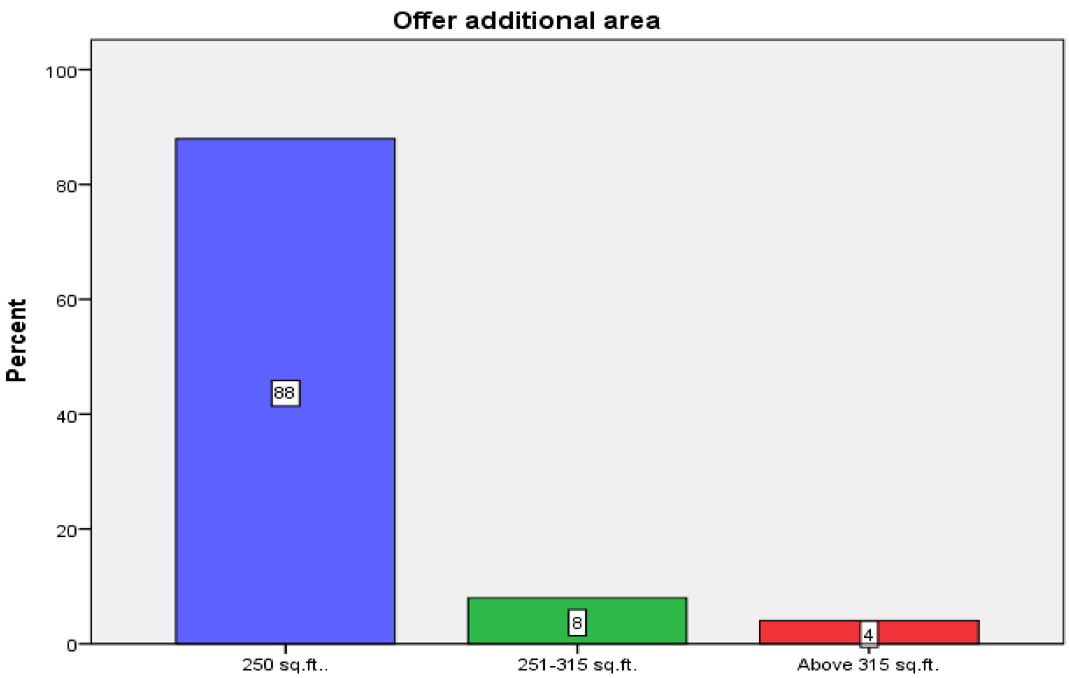
How many offers that different realtors have given to your society for redevelopment?

Table 3: Offer additional area

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	250 sq.ft..	440	88.0	88.0	88.0
	251-315 sq.ft.	40	8.0	8.0	96.0
	Above 315 sq.ft.	20	4.0	4.0	100.0
	Total	500	100.0	100.0	

Source: Primary data (SPSS Method)

Graph 3



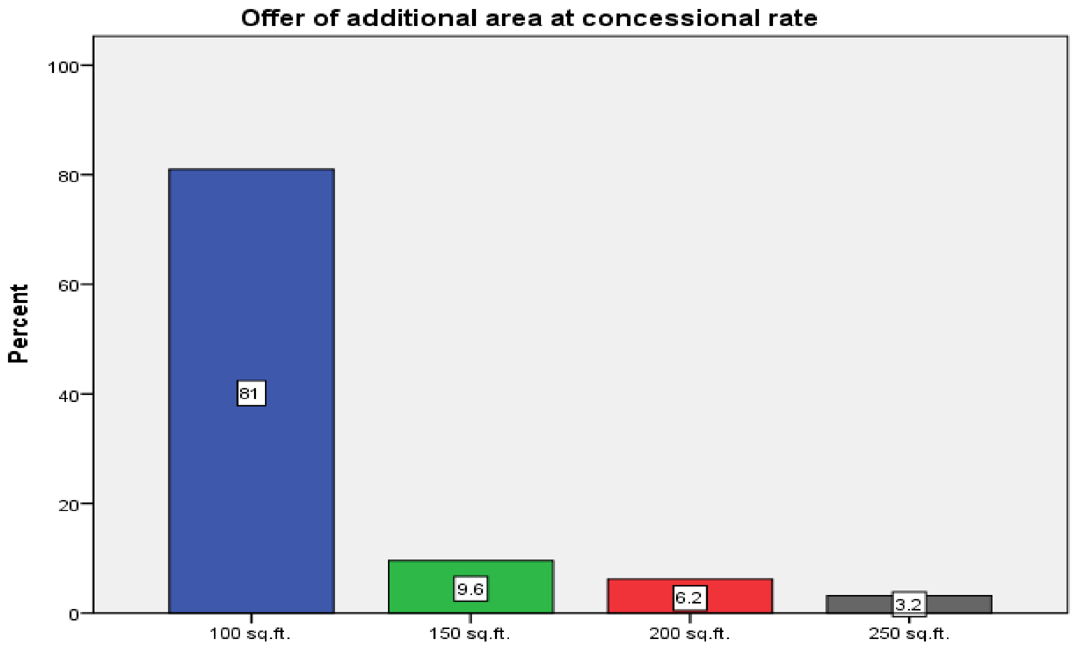
Interpretation:
From above table and graph it is observed that out of the 500 respondents 88% respondents have said that there developer offers 250 sq.ft. additional area to them. 8 % respondents have said that there developer offers 251-315 sq.ft. additional area to them; whereas 4 % respondents have said that there developer offers above 315 sq.ft. additional area to them. It indicates that majority of the developers offer 250 sq.ft. additional area to the inhabitants.

Table 4: Offer of additional area at concessional rate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100 sq.ft.	405	81.0	81.0	81.0
	150 sq.ft.	48	9.6	9.6	90.6
	200 sq.ft.	31	6.2	6.2	96.8
	250 sq.ft.	16	3.2	3.2	100.0
	Total	500	100.0	100.0	

Source: Primary data (SPSS Method)

Graph 4



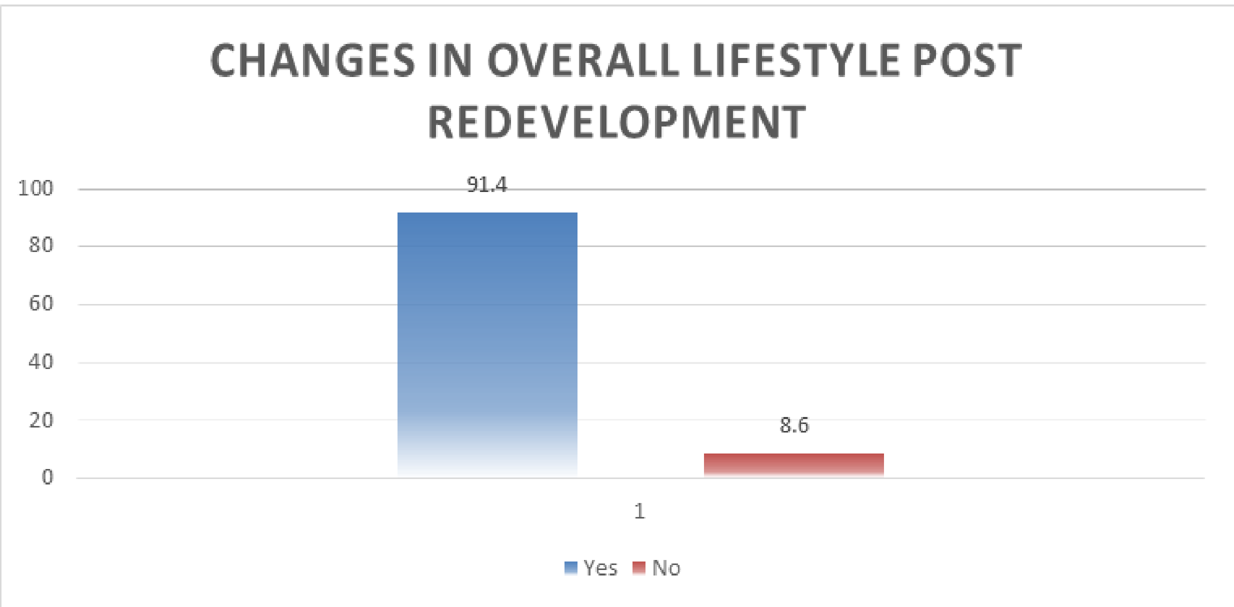
Interpretation:
From above table and graph it is observed that out of the 500 respondents 81% respondents have said that there developer offers 100 sq.ft. additional area at concessional rate. 9.6 % respondents have said that there developer offers 150 sq.ft. additional area at concessional rate. 6.2 % respondents have said that there developer offers 200 sq.ft. additional area at concessional rate whereas 3.2 % respondents have said that there developer offers 250 sq.ft. additional area at concessional rate. It indicates that majority of the developers offer 100 sq.ft. additional area at concessional rate to the inhabitants.

Table 5: Changes in Overall Lifestyle post Redevelopment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	457	91.4	91.4	91.4
	No	43	8.6	8.6	100.0
	Total	500	100.0	100.0	

Source: Primary data (SPSS Method)

Graph 5



Interpretation:
By analyzing above table and graph, it can be noticed that 91.4% respondents have said yes that their lifestyle has seen a huge change post redevelopment. 8.6% respondents have said no that their lifestyle has seen any change post the redevelopment.

CONCLUSIONS
Mumbai is to be land where dreams come true, the capital of finance of the world of films. Every person dream to make Mumbai its home.

Mumbai for long has been inundated by the tryst of times whether it being the 1992 Riots and Bomb Blasts; 2005 – Flood Deluge; 2007 – Bomb Blasts in Train and many other events which have shook the city of its hook but the city has remained on its feet grounded and calm as it may be.

Housing is a major problem of Mumbai and Scarcity of Land poses a challenge to providing Housing to All and on this context the Researcher took it as a challenge to see what is ailing this city and found that the problems of housing is of immense importance to every living individual of the city.

The researcher has tried to cover some micro points for the real estate realtors to see the extent of the changes that it has brought to the lifestyle of inhabitants and those changes have been positive.

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STAFF MOTIVATION AS A CATALYST FOR EFFECTIVE PERFORMANCE IN THE LIBRARY: A CASE STUDY OF FEDERAL UNIVERSITY DUTSINMA

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INTRODUCTION

The organization and services of university libraries vary from one university to the other, while some university libraries are well organized. It is not uncommon to find only one professional librarian working in a university library. In some university libraries, the collections are of a high standard, while in others, most of the collections are out-dated. Thus any action or condition which yields satisfaction is more likely to be dependent than another action or condition brings dissatisfaction particularly to the staffs and users

LITERATURE REVIEW

Bello, (1991), stated that job satisfaction is the good feeling that workers have about their job. When a worker is not satisfied with his work he is likely to be less productive. Cunnigham, (2000), indicated that, employees are satisfied for their jobs only when they are trained based staff. He further stated that, training and development are the fundamental ways that help the organization to achieve its success. Training means investing in people to enable them to perform better and to empower them to make the best use of their natural abilities.

Performance refers to psychological forces that determine the direction of a person, behavior to word his performance (Brain, 2005. Armstrong (2001) defined performance as something that sustains people's desire to work effectively and efficiently. Performance in an organization can be regard as the process of identifying how to get beat of subordinates by understanding their immediate needs. In view of above concepts, performance in academic libraries can be seen as the totality of the activities of an individual which initiate, sustain and direct the behavior of staff in response to a situation in the libraries environment.

1.2 STATEMENT OF THE PROBLEM

The use of academic library as well as their efficient and effective performance depends very much on the attitudes to work of staff of the library. Right attitude to work could be achieved only if the workers are satisfied with their work. However, when they drive sufficient satisfaction from the job, the production is more likely to the enhanced Celliot (2017). It has been observed that, library of Federal University Dutsinma (FUDMA) do not appear to be happy with their work. Their frequent calls for recognition suggest that they are dissatisfied with some aspects of their job, which could be as a result of poor performance. These could only be achieved when the staffs are trained and that the sometime motivated and satisfied for the job. Absence of the performance leads them to provide insufficient services.

RESEARCH OBJECTIVES

1. To identify whether librarians are motivated in Federal University Dutsinma
2. To find out the affective performance of staff in the library under study
3. To identified the extent with which the library staff been satisfied with their job in the library under study

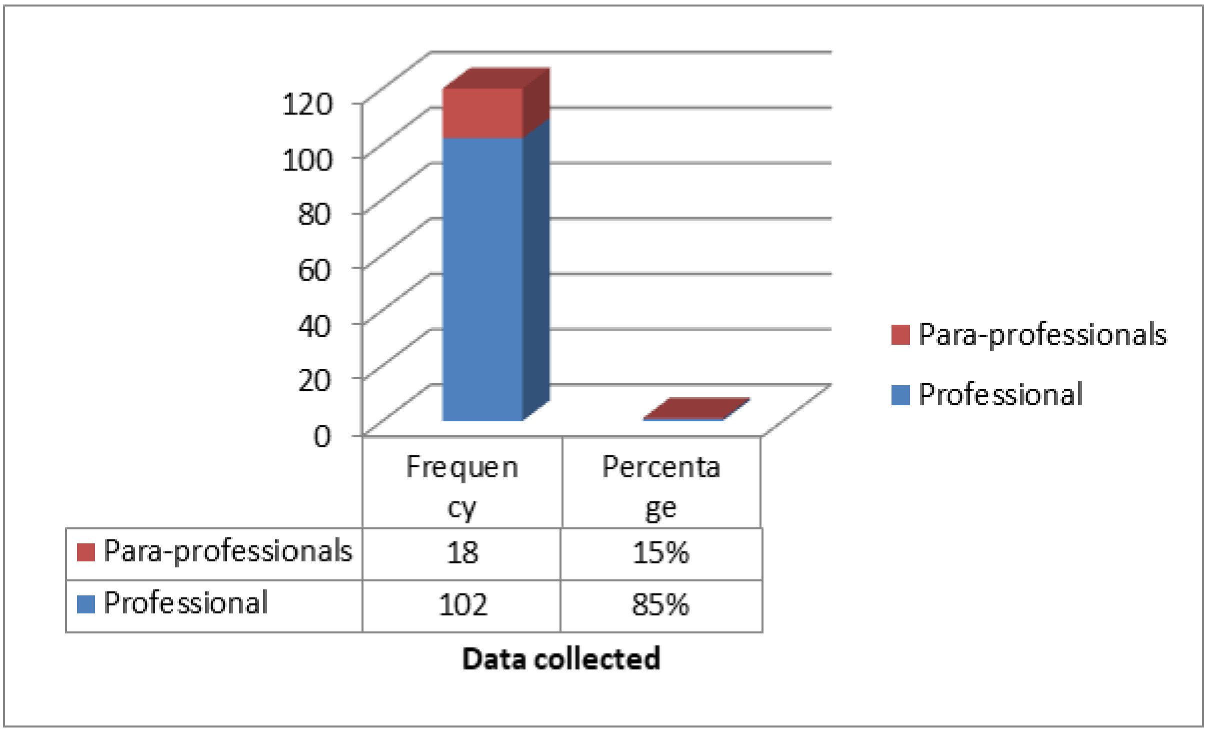
3.3 POPULATION OF THE STUDY

The population of the study comprised professional and non-professional staff Librarians working at the federal University Dutsin-Ma are 125. Out of the population 105 are professional librarians, while 20 are Para-professionals; therefore, since the population is not too large the researcher will take the whole population that is 125

DATA ANALYSIS

Based on one hundred and twenty five 125 copies of the questionnaires that were distributed out of which one hundred and twenty 120 copies were duly completed, returned , examined and found worth for data analysis and this represent response rate, while only 5 were not returned.

Staff	Frequency	Percentage
Professional	102	85%
Para-professionals	18	15%
Total	**120**	**100%**



From the table above 102 respondent representing 85% is professional Staff, 18 respondents representing 15% are non-professional staff.

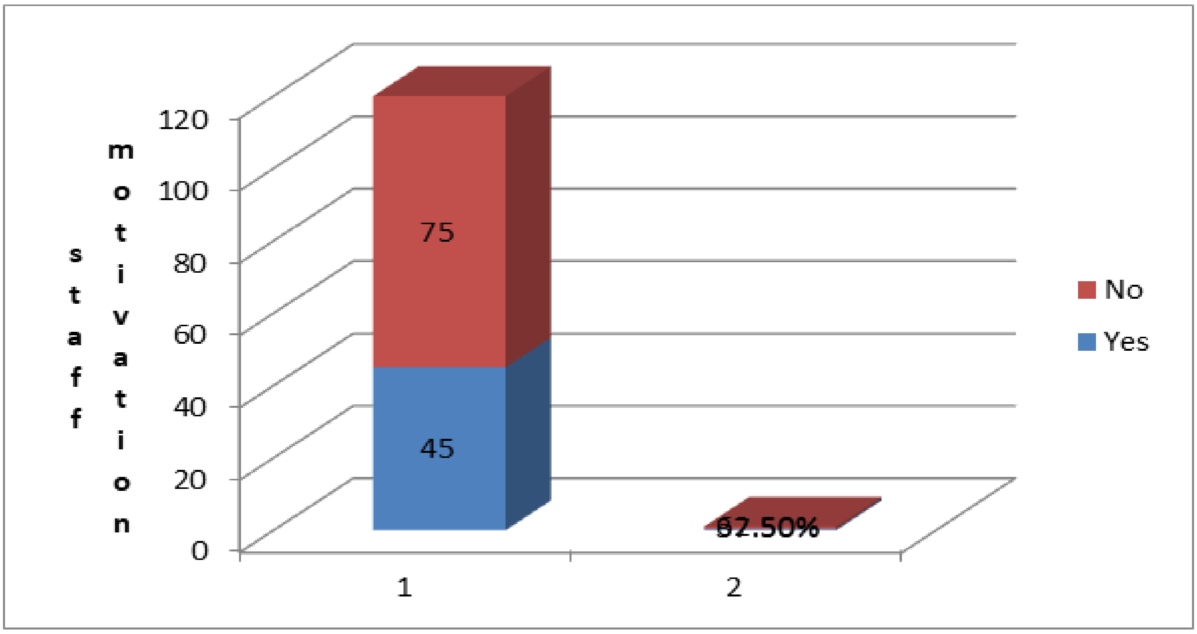
DATA ANALYSIS AND DISCUSSION

Library staffs motivation

Options	**No. of Respondent**	**%of Respondent**
Yes	45	37.5%
No	75	62.5%
Total	**120**	**100%**

From the above table 45 respondents representing 37.5% agreed that, library staffs of Federal University Dutsin-ma are really motivated, while 62 5 respondents representing 62.5% disagreed with the statement above. This implied that the staffs of the university library are not motivated to carry their assignment; therefore, the library management needs to take measures in motivating their staff in order to discharge their duty efficiently

Library staffs motivation



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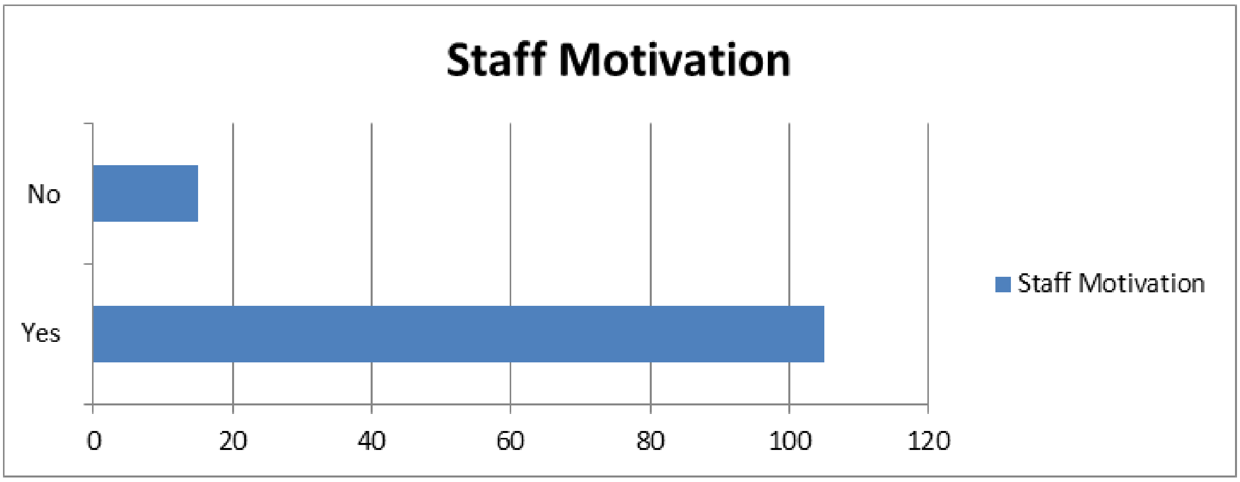
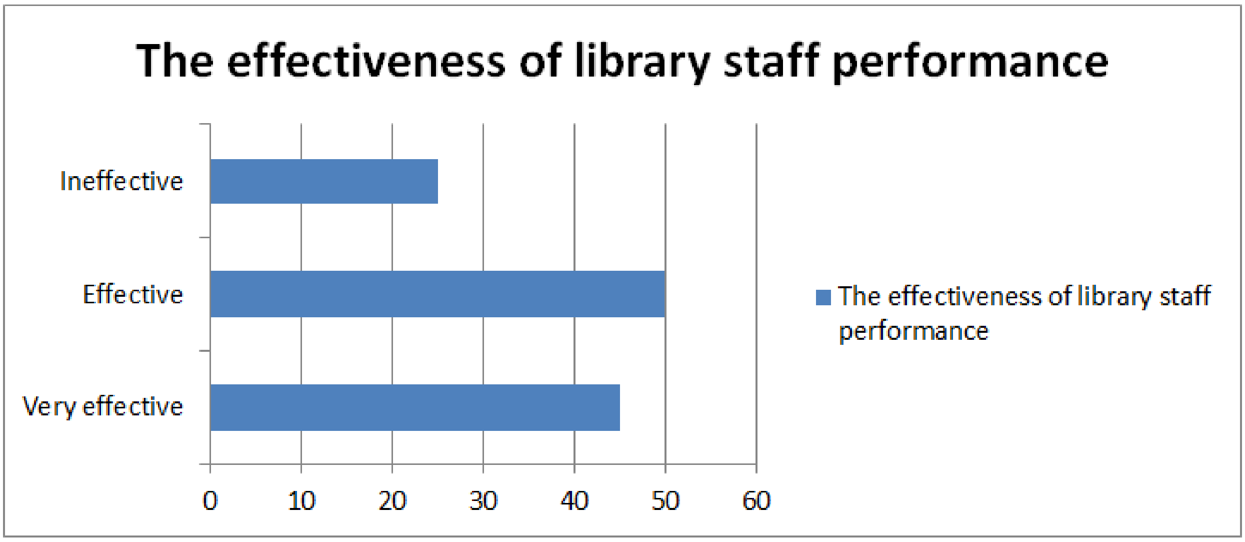


The effectiveness of library staff performance

Variables	No. of Respondent	%of Respondent
Very effective	45	37.5%
Effective	50	41.7%
Ineffective	25	20.8%
Total	**120**	**100%**

From the above table 45 respondents representing 37.5% say the level of effectiveness of library staff performance is very effective, 50 respondents representing 41.7% say effective, while 25 respondents representing 20.8% say ineffective.

Fig. effectiveness of library staff performance



The extent to which the library staffs been satisfied with their job

Variables	No. of Respondent	%of Respondent
High	80	66.7%
Moderate	20	16.7%
Low	20	16.7%
Total	**120**	**100%**

From the above table 80 respondents representing 66.6% say the extent to which the library staffs been satisfied with their job is high, 20 respondents representing 16.7% each say moderate and low respectively.

The extent to which the library staffs been satisfied with their job

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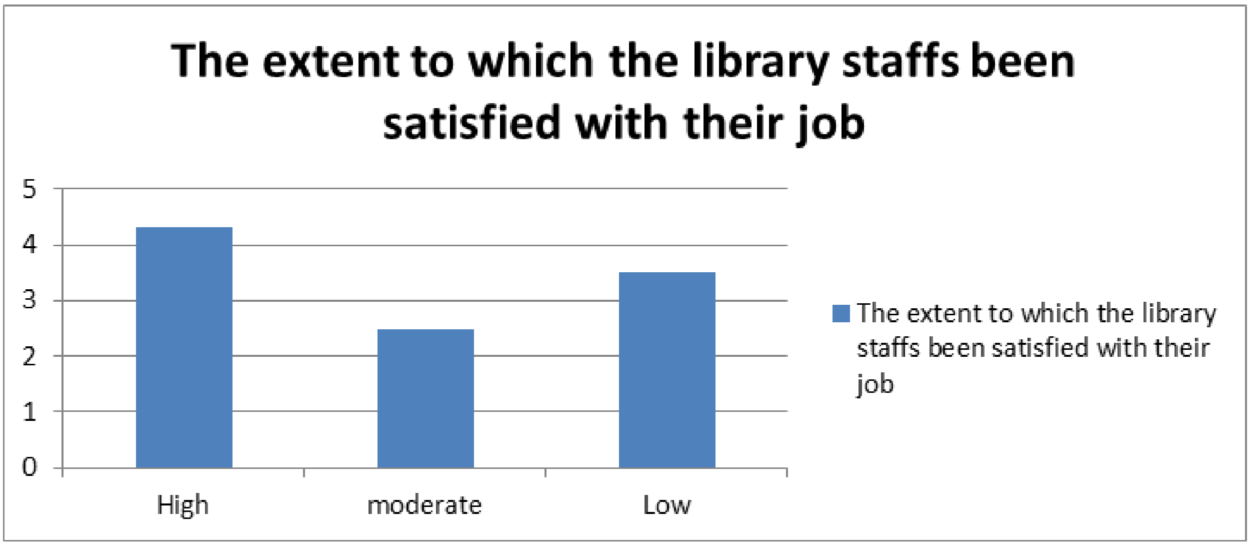

THE FINDINGS OF THE STUDY

1. It is agreed that the staff of the Federal University Dutsin-Ma library are not being motivated.
2. The effectiveness of the job performance in Federal University Dutsin-Ma is very high.
3. The library staffs have been satisfied to the high extent in Federal University Dutsin-Ma

CONCLUSION

In conclusion, the findings show that the library staffs are not motivated based on the high percentage level; therefore, the staffs need to be motivated through. Staff welfare, incentives, loan, and regular promotion

RECOMMENDATIONS

The major aim and objectives of this research was to find out Staff Motivation and effective Performance in the Library as a result of the finding of this study the followings are the recommendations made by the researcher:

1. The library should provide the method of motivating librarians both professional and paraprofessional.
2. The library should give loan to its staff so that they will carry their services effectively.
3. The library should also try as much as possible to give incentives to its staff either monthly or annually this will motivate them to do their job perfectly.
4. Staff development meeting should also hold occasionally so that the management and the library should know the problems of performance among the staff.

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THE CHANGE IN THE TOURISM INDUSTRY IN INDIA: THE POST COVID-19

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ABSTRACT
The purpose of this study is to observe the Impact of COVID-19 on the tourism sector of India. India is tourist euphoria. Tourism in India has noteworthy potential seeing the rich cultural and historical heritage, variety of ecology, terrains and places of natural beauty spread across the country. It is considered to be the biggest and rapidly growing industry. Tourism is also a potentially great employment generator besides being a significant source of Foreign exchange for the country. Due to the sphere of pandemics and infectious diseases, the tourism industry has become very unstable. The altering trajectory of the tourism sector has provided both businesses as well as Governments the opportunity to understand and adapt themselves to take advantage of emerging trends. The covid-19 pandemic was a dark time for the entire tourism industry. According to the World Travel & Tourism Council's annual Economic Impact Report, the travel and tourism industry lost almost $ 4.9 trillion in GDP (50.4 per cent decline) and 62 million jobs (18.6 per cent decline) in 2020 alone.

The COVID-19 froze the tourist sector around the world, countries around the world continued to impose restrictions on travel as apart to hold the spread of the virus, so on India. Ultimately, the drastic outbreak of the novel coronavirus has caused great losses to the tourism industry. In India, as the contagious were emerging the authorities implemented travel restrictions, social distancing, lockdown which completely brought the tourism sector of India to recession. As resulting the threat of virus, travellers revoke their tour and agitation tumbled the tourist graph significantly. This study attempts to try to understand the tourism sector importance in Indian economy and change in the Tourism Industry in India after COVID-19

1. INTRODUCTION
Travel and Tourism industry is one of the fastest growing economic sectors and is an important driver of economic growth and development. It has been the primary and most dynamic sector in today's global economy. It had generated about 10.3 % of global GDP and provided 330 million jobs in 2019 directly and indirectly (World Travel & Tourism Council, 2019). Tourism is a major source of employment globally. The labour market has some distinguishing features.

The industry is labour-intensive in nature. Such a huge and positive impact on the global economy was experienced despite its survival from the crises and disasters at various times in the past.

India is the most digitally advanced traveller nation in terms of digital tools being used for planning, booking, and experiencing a journey. India's rising middle class and increasing disposable income has supported the growth of domestic and outbound tourism. According to WTTC, India was globally the third largest in terms of investment in travel and tourism with an inflow of US$ 45.7 billion in 2018, accounting for 5.9% of the total investment in the country. In this regards India's ranked 8th with respect to total direct travel and contribution towards tourism of about USD 108 billion (FICCI, 2020). The Government of India ("**GOI**") over the past few years has taken various supportive measures and has focussed on making India a global tourism destination by promoting schemes like 'Incredible India', 'Atithi Devo Bhava', 'Swadesh Darshan' and 'Pilgrimage Rejuvenation and Spiritual Augmentation Drive' (PRASAD).

The Covid-19 pandemic has severely impacted the travel and tourism industry across the globe covering sectors like hospitality, tour operators, travel agents, air, land and sea transportation industry and others. The pandemic has affected not only economically but also politically and socially (Cohen, 2012). Due to COVID-19, tourism is such a extremely affected sector and has been affected for the long time, almost 1.5 years. Therefore, in this scenario, it is required to measure the losses due to pandemic so that policies can be reworked to manage tourism activities.

This study will aim to gather the historical data post-pandemic and will compare with the current crisis in India. Also analyse the impact of COVID-19 based on four scenarios considering with and without lockdown in terms of contraction and expansion in foreign tourists, GDP, employment, foreign exchange earnings.

2. LITERATURE REVIEW
Marianna Sigala talks about tourism impacts and transformational affordance of the COVID-19 pandemic. The COVID-19 pandemic can prove to be a transformational prospect by conferring the circumstances and the questions raised by the pandemic. The article discusses how the pandemic has altered the behaviors and experiences of various tourism stakeholders in the form of tourism demand, supply and destination

management, and policy making. The pandemic has also necessitated the revision of knowledge and experience during three COVID-19 stages namely response, recovery, and reset.

Kushal and Srivastava discuss the challenges faced by the fragile tourism and hospitality industry amid pandemic. They further go on to say that the impacts of the pandemic will be more noticeable and long-lasting, especially in the light of the absence of an instantaneous vaccine to create immunity in the common masses. Tourism and hospitality require multiskilling and professional development of the personnel for the crisis handling, increased sense of hygiene and sanitation-related standard procedures, positive attitude toward the restoration of the industry, and increased sense of responsible media roles in times of pandemic.

Suau-Sanchez et.al talks about the impact of COVID-19 on air transport. Before Covid-19, the most severe outbreak was in terms of impact on the aviation sector was in SARS 2003. Due to the SARS pandemic, the monthly air traffic was 35% lower than their pre-crisis levels. The COVID-19 pandemic has an even worse effect on the aviation sector than that of SARS. As of 24 March 2020, 98% of global travel revenue was affected due to severe restrictions such as quarantine for arriving passengers, partial travel bans, and border closures. Many airlines and aviation businesses came to halt to make the situation worse.

Ruwan Ranasinghe et.al talk about the impacts of the COVID 19 pandemic and the way forward for the tourism, hotel, and mice industry. The proposed steps are to be introduced progressively in response to circumstances that are changing. Ensuring the protection of the guests and the staff, and other stakeholders in the hospitality sector have become a top concern. At the same moment, to recover from market losses and to restore the positive picture in the visitors' attitude, there is a need for strong marketing and promotional campaigns to be launched both locally and at the international level.

Abhijit Mitra throws light on the impact of the COVID-19 pandemic on the global employment sector with special reference to India. The worst affected industries, as per global estimates include food and lodging that employs1444 Million workers, wholesale and retail that employs 482 million; services and management of companies that constitute for157 million, manufacturing and development that constitute 463 million workers together constituting 37.5 percent of global employment. This is where the 'sharp end' of the pandemic was felt and India is no exception to it.

3. OBJECTIVES OF THE STUDY:

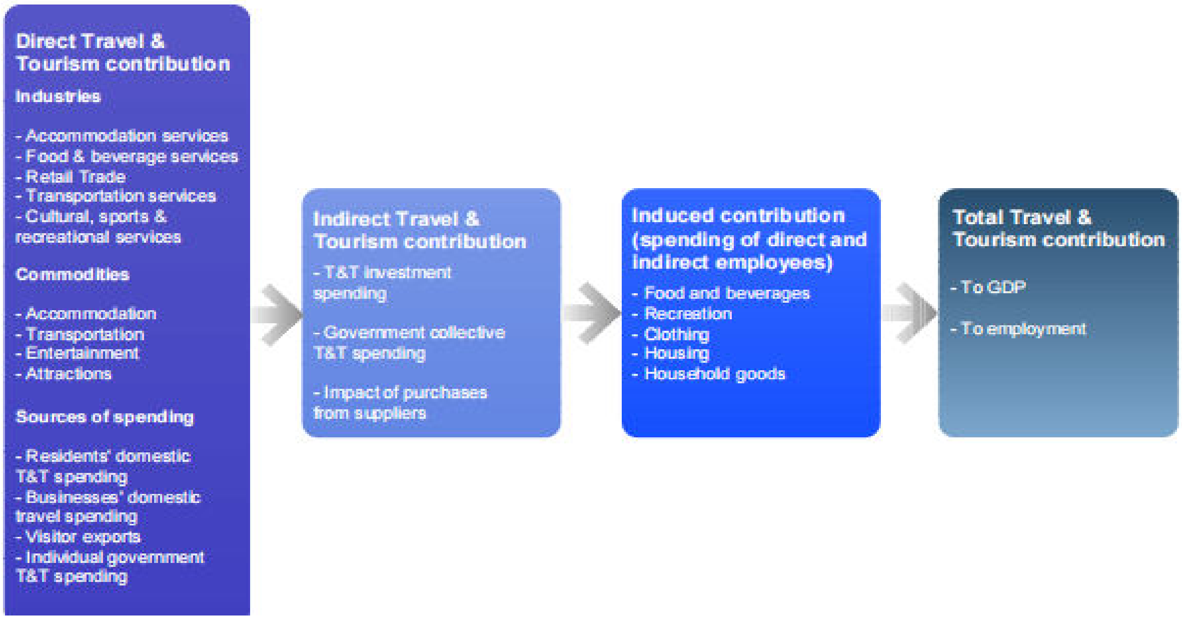
- To derive the impacts of the black swan event like COVID-19 on Indian travel and tourism industry.
- To find out the major problems faced by travel and tourism industry during COVID-19 restrictions in India
- To identify the impact of COVID-19 on foreign tourists’ arrival and foreign exchange earnings.

4. RESEARCH METHODOLOGY:

This study is analytical in nature but analytical method has also been chosen. In this segment we discuss data sources and statistical analysis that we are going to use. Secondary data has been used in this study. The secondary data will be collected from the Indian companies which is engaged in travel and tourism sector as well as publications such as journals, newspapers, magazines, books, Internet, and from other studies taken up by government or other independent organizations.

5. CONCEPTUAL APPROACH

Travel & Tourism is an important economic activity in most countries around the world. As well as its direct economic impact, the sector has significant indirect and induced impacts.



6. GLOBAL SCENARIO:

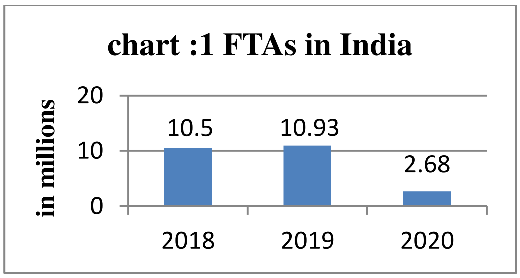
- Tourism sector suffered a loss of almost US$4.5 trillion to reach US$4.7 trillion in 2020, with the contribution to GDP dropping by a staggering 49.1% compared to 2019; relative to a 3.7% GDP decline of the global economy in 2020.
- In 2019, the Travel & Tourism sector contributed 10.4% to global GDP; a share which decreased to 5.5% in 2020 due to ongoing restrictions to mobility.
- In 2020, 62 million jobs were lost, representing a drop of 18.5%, leaving just 272 million employed across the sector globally, compared to 334 million in 2019. The threat of job losses persists as many jobs are currently supported by government retention schemes and reduced hours, which without a full recovery of Travel & Tourism could be lost.
- While domestic visitor spending decreased by 45%, international visitor spending declined by an unprecedented 69.4% due to ongoing travel restrictions. This led to domestic visitor spending gaining the share of overall Travel & Tourism spending from 72% of the total in 2019 to 82% in 2020. In parallel, leisure spending decreased by 49.4%, a smaller decline than business spending which dropped by 61%.

7. IMPACT ON TOURISM INDUSTRY IN INDIA:

The travel and tourism companies in India are dealing with the miserable journey of canceled bookings from travelers which have led to a "complete paralysis" in the market. With the impose on travel bans internationally, the airlines and railways came to a standstill as the crisis has hit its nerve centers. COVID-19 pandemic has adversely affected the travel and tourism sector in India. In the following subsections, the impacts on the foreign tourists' arrivals, GDP, employment, foreign exchange earnings.

7.1 Impact on foreign tourists' arrival

During the lockdown period, India had canceled travel to over 80 countries, due to which the international flights were being suspended. The domestic flights were operational with regulations. The Indian domestic travelers and foreign tourists' arrivals (FTAs) witnessed a significant decline in 2020.

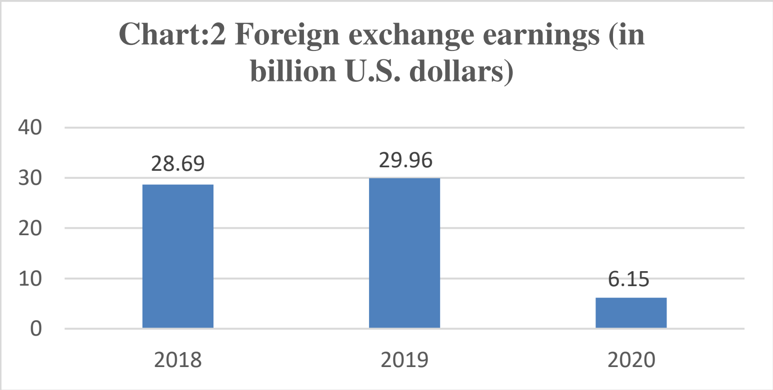


Source: Statista Research Department, Jul 13, 2021

In chart above it seems that FTA was slightly increased in pre Covid 19 and was drastically decreased in during of Covid 19.

7.2 Impact on foreign exchange earnings:

Tourism is huge source of Foreign exchange earnings, until 2019, the foreign exchange earnings from tourism had grown steadily. In 2019, the exchange earnings reached a new height of nearly 30 billion U.S. dollars.

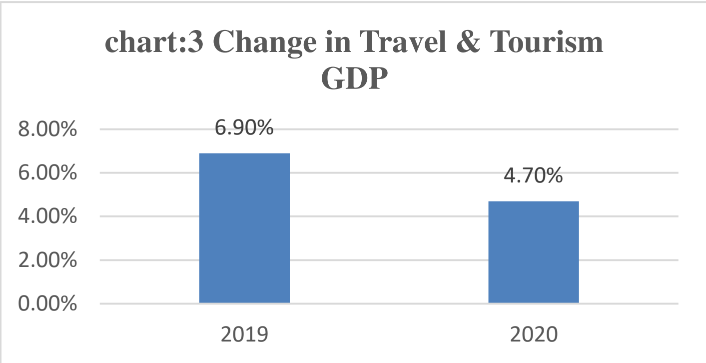


Source: Statista Research Department, Jul 13, 2021

As of March 2020, foreign exchange earnings from tourism industry across India amounted to over 6 billion U.S. dollars. This had been stable numbers for the first quarter of a year. Due to the corona virus (COVID-19) pandemic and a lockdown imposed, the numbers did not rise much in the course of the year.

7.3 Impact of Total contribution of Travel & Tourism to GDP:

According to WTTC, India ranked 10th among 185 countries in terms of travel & tourism's total contribution to GDP in 2019.

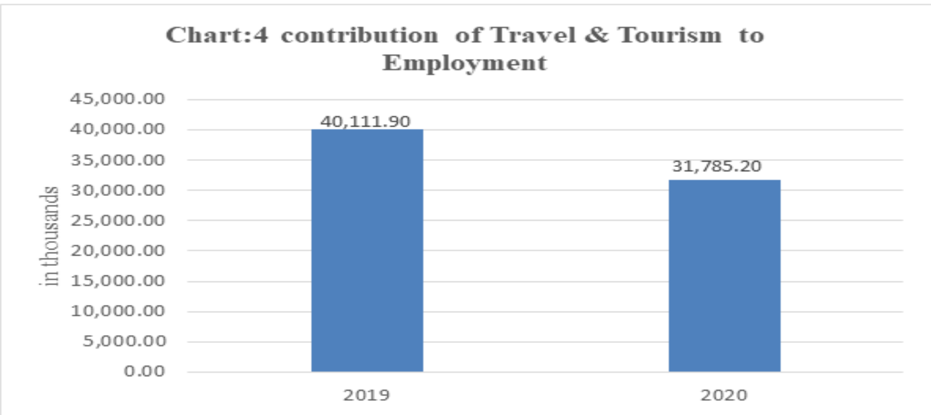


Source: WTTC, 2021

During 2019, contribution of travel & tourism to GDP was 6.9% of the total economy, INR14,181.9BN ((USD191.3BN). In 2020, contribution of travel & tourism to GDP was 4.7% of the total economy,INR 9,039.5BN(USD121.9BN).

7.4 Impact on Employment:

Covid-19 has given a major impact on the Employment.The pandemic caused "significant" jobs losses in the tourism. Economic Losses for Households Engaged in Tourism and Policies for Recovery", which revealed the number of jobs lost and the economic damage that the industry suffered.8,326.7k jobs loss from 2019 to 2020,



Source: WTTC, 2021

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8. GOVERNMENT INITIATIVES:

The Indian Government has realised the country's potential in the tourism industry and has taken several steps to make India a global tourism hub. Some of the major initiatives planned by the Government of India to boost the tourism and hospitality sector of India are as follows:

- In May 2021, the Union Minister of State for Tourism & Culture Mr. Prahlad Singh Patel participated in the G20 tourism ministers' meeting to collaborate with member countries in protecting tourism businesses, jobs and taking initiatives to frame policy guidelines to support the sustainable and resilient recovery of travel and tourism.
- Government is planning to boost the tourism in India by leveraging on the lighthouses in the country. 71 lighthouses have been identified for development as tourist spots.
- The Ministry of Road Transport and Highways has introduced a new scheme called 'All India Tourist Vehicles Authorisation and Permit Rules, 2021', in which a tourist vehicle operator can register online for All India Tourist Authorisation/Permit. This permit will be issued within 30 days of submitting the application.
- In February 2021, the Ministry of Tourism under the Government of India's Regional Office (East) in Kolkata collaborated with Eastern Himalayas Travel & Tour Operator Association (resource partner) and the IIAS School of Management as (knowledge partner) to organise an 'Incredible India Mega Homestay Development & Training' workshop. 725 home stay owners from Darjeeling, Kalimpong and the foothills of Dooars were trained in marketing, sales and behavioral skills
- On January 25, 2021, Union Tourism and Culture Minister Mr. Prahlad Singh Patel announced plan to develop an international-level infrastructure in Kargil (Ladakh) to promote adventure tourism and winter sports.
- The Indian Railway Catering and Tourism Corporation (IRCTC) runs a series of Bharat Darshan tourist trains aimed at taking people to various pilgrimages across the country.
- On November 4, 2020, the Union Minister of State (IC) for Tourism & Culture Mr. Prahlad Singh Patel inaugurated the "Tourist Facilitation Centre" facility constructed under the project "Development of Guruvayur, Kerala" (under the PRASHAD Scheme of the Ministry of Tourism).
- The Ministry of Tourism's 'Dekho Apna Desh' webinar series titled '12 Months of Adventure Travel' on November 28, 2020, is likely to promote India as an adventure tourism destination.
- On January 26, 2021, Maharashtra Chief Minister Mr. Uddhav Thackeray inaugurated Balasaheb Thackeray Gorewada International Zoological Park in Nagpur. It is India's largest zoological park spread over 564 hectares and expected to attract ~2.5 million tourists a year.
- The Ministry of Tourism developed an initiative called SAATHI (System for Assessment, Awareness & Training for Hospitality Industry) by partnering with the Quality Council of India (QCI) in October 2020. The initiative will effectively implement guidelines/SOPs issued with reference to COVID-19 for safe operations of hotels, restaurants, B&Bs and other units.
- Ministry of Tourism launched Dekho Apna Desh webinar series to provide information on many destinations and sheer depth and expanse on the culture and heritage of India.
- Statue of Sardar Vallabhbhai Patel, also known as 'Statue of Unity', was inaugurated in October 2018. It is the highest standing statue in the world at a height of 182 metre. It is expected to boost the tourism sector in the country and put it on the world tourism map.
- Under Budget 2020-21, the Government of India has allotted Rs. 1,200 crore (US$ 171.70 million) for development of tourist circuits under Swadesh Darshan for eight Northeast states.
- Under Budget 2020-21, the Government of India has allotted Rs. 207.55 crore (US$ 29.70 million) for development of tourist circuits under PRASHAD scheme.

9. CONCLUSION

At present Covid-19 pandemic is the disease of 2019, which is affecting public health, the present disaster has become a downside economic crisis to the entire world and therefore the

Tourism and hospitality sectors. The improvement has to be moderate and equal to the other sectors tackling with this pandemic outbreak and recovering and economic performances. Thus this study and brief report has

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gone with past, present and future of tourism and hospitality industries with all the measures proposed to be implemented with this situation and ensuring the safety of people and the employees have become top concerns of the government and stakeholder, at the same time, to recover and manage the business loss and again to rebuild the positive image in the mindset of the people it is necessary and very essential to indicate all the hashtag for the smart marketing and promotional campaign to improve domestic tourism by cooperating closely with WHO and many health measures are implemented which can tackle unnecessary impact on national trade and travel. By promoting the flexibility services and safety protocols would be another strategic tool to attract potential people and offering discounted rates, cancellation policy, and a better working environment would be the best opportunity for long term sustainability of the travel and tourism industry.

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CONSCIOUS-MARKETING: A STUDY TO EXPLORE ETHICAL CONCERNS IN ARTIFICIAL INTELLIGENCE DRIVEN MARKETING

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ABSTRACT

Artificial Intelligence has serves as the driving force behind advanced STEM research. Most consumers have become aware of the technological powers and potential through internet platforms. Now a days Artificial Intelligence has become essential across multiple areas including health care, banking, manufacturing and so on. But its game changing promises to improve efficiency, bring down costs, and accelerate research and development has been tempered of late with worries that these complex, opaque systems may do more societal harm than economic good. Earlier Artificial Intelligence future was thought to involve simple tasks that would require low level decision making, but with the advancement in Artificial Intelligence especially in one particular branch machine learning, which is notable for its ability to sort and analyze massive amounts of data and to learn over time, has transformed countless fields which in turn are costing employees jobs. As AI continues to evolve, there's a looming threat that companies like Amazon might replace human workers with machines. The unethical treatment of employees raises concerns about the potential impact on workers who could face job loss when these corporations opt for automation. Apart from employment there are multiple other ethical challenges which this paper tries to explore.

Keywords: Artificial Intelligence, Machine learning, Deep learning, algorithms, Voice recognition, Digital assistance, Business ethics.

SIGNIFICANCE OF THE STUDY

Artificial Intelligence has serves as the driving force behind advanced STEM research. Most consumers have become aware of the technological powers and potential through internet platforms. Now a days Artificial Intelligence has become essential across multiple areas including health care, banking, manufacturing and so on. But its game changing promises to improve efficiency, bring down costs, and accelerate research and development has been tempered of late with worries that these complex, opaque systems may do more societal harm than economic good. Earlier Artificial Intelligence future was thought to involve simple tasks that would require low level decision making but with the advancement in Artificial Intelligence especially in one particular branch machine learning, which is notable for its ability to sort and analyze massive amounts of data and to learn over time, has transformed countless fields which in turn are costing employees jobs. As AI continues to evolve, there's a looming threat that companies like Amazon might replace human workers with machines. The unethical treatment of employees raises concerns about the potential impact on workers who could face job loss when these corporations opt for automation. Apart from employment there are multiple other ethical challenges which this paper tries to explore.

INTRODUCTION

Artificial Intelligence technology has taken the world by storm and left everybody questioning whether AI is a boon or bane in the digital wonderland. We all know that AI has now become an inseparable part of our livelihood one can cite various examples of AI in our daily life such as Facebook where machine learning and deep learning algorithms are used to identify facial expressions and tag contacts, and Digital assistants such as I phone's Siri, Amazon's Alexa, and Samsung's Bixby that make use of voice recognition making it possible to make a phone call and type messages at a single command, the E-commerce sector has gained immense popularity because of the use of AI technology, many people now gravitate towards online shopping because an individual can easily find information about the product, find the competitors of any brand as well as filter out amongst the masses to find exactly what he wants to purchase all due to the basic AI algorithm study feature that helps to differentiate and classify product search for efficient cataloguing

ETHICAL CHALLENGES FACED BY AI TODAY

Business ethics is a prominent subdiscipline in applied ethics that concerns any ethical issues that might arise in the business environment. It also encompasses individual and corporate conduct and ethical norms, moral values, principles, policies, and regulations applied in business. Business ethics has become more prominent against the background of emerging technologies, particularly in the era of AI. Many of the current problems are concerned with issues caused by the application of AI in businesses, as discussed below.

- **Issues related to bias and fairness**: Ethical issues arising due to AI we notice a raging concern regarding **bias and fairness**, this happens because AI learns a lot of information and if the information itself is biased then the AI judgment too will be biased. For example, in **facial recognition technology,** AI recognizes some faces better than others, this problem is being faced by many dark-skinned people as well as women, this leads to mistakes and misunderstandings, many people have issued complaints of racism they faced while using applications that make use of the AI face recognition technology.

- **Privacy concerns :** Privacy concerns has also been under the limelight for a while, many people have complained about their private information being misused, for example, today when one wants to shop online they have to download a shopping app and while making an account one has to fill various information regarding their name, their age, phone number, and email id as well as their bank details, all this information is stored and then used by the AI technology to understand the requirements and suggest products as well as study the algorithm of the purchasing pattern of the user, if such sensitive information is leaked and is misused there isn't anybody to hold accountable and hence this leads to privacy issues being faced because of lack of security clauses in the AI tech system.

- **Accountability and responsibility issue :** In a world where AI is used at every step, accountability and liability are important concepts, accountability means taking responsibility for actions and liability means being legally responsible for any harm or damage caused, with a system such as AI which takes decisions based on the information that it learns, it often becomes difficult to point the blame at any person or hold anyone responsible for example if a company uses an AI tool to help them in the process of hiring and while doing so the AI tool is biased against a certain group of people, who is to be held responsible then, the company using the AI tool or the developers who trained the AI or both? Similarly, imagine a self-driving car getting into an accident on the road now in this situation who is to be held responsible the owner of the car, the manufacturer of the car, or the software developers that programmed the AI, or all of them? This shows how complex it gets to hold someone responsible for the mistakes or misjudgments of the AI system.

- **Unemployment:** Another major problem being faced by people today is job displacement with constant advancements being made in the field of AI there is an increase in the unemployment rate as machines are replacing humans.

- **Environmental issues** : This influx of machines into the business will have negative effects on both the environment and the economy of the country, with increased efficiency in production due to the smart machines the quality of the products has improved but at the cost of our environment degrading, these AI machines cost a fortune to the businessmen and to keep his profits intact often they neglect the protection of the environment, these machines may produce a large number of waste and all this waste is dumped in the oceans or burnt in a pile in forests without properly processing them or building a system for its eco-friendly decomposition, by neglecting their duty towards the environment they put all the living organisms at danger.

- **Impact on Standard of Living**: At the same time with the increase in the unemployment rate, there is a decrease in the standard of living as the prices of the commodities seem to keep rising. Still, the income doesn't rise at the same speed leading to a decline in the standard of living of people, such economic conditions may lead to inflation in the country which slows down the growth of the country as a whole and hence if machines replace humans in the future there will be negative effects on the people, economy and the environment.

- **Security and defense system of the country** :Recently it has been observed that many countries have tried to incorporate AI into their military defense system which raises many concerns as, if the machines make any mistakes there would be a lack of accountability, for instance, these weapons with AI tech might make decisions without direct human oversight while doing so they might cause unintended harm as the AI might make mistakes in accurately distinguishing between combatants and civilians, it is extremely crucial to make sure that the AI tech aligns with the ethical principles and the international laws before being incorporated into the military weapons. Moreover, AI-powered weapons may lead to an arms race i.e. a competition between nations for superiority in the development and accumulation of weapons, this will lead to increasing conflicts between nations and heighten the security risks. There are also concerns regarding the potential abuse of power, the country with AI-integrated weapons will stand at authority and try to dominate the weaker nations, these technologies could also be used against civilians or to violate human rights, with the existing issue of transparency in AI technology if the military defense system incorporates the AI tech without clearly defining who is to be held accountable over any mishaps done by these weapons, then these weapons are bound to bring doom to the world peace.

- ❖ **Diminishing Human ability to think and reasoning**: Another rising issue regarding AI technology is how it affectsour ability to think and reason out our actions, with the advancements made in the tech world today robots seem to be getting better and better at forming human conversations and building relations like humans. We have all experienced interacting with bots whether it be through customer call services or asking Alexa to play music, artificial bots can invest a lot of kindness and attention towards building relationships as they don't have limitations as humans do, humans may have restrictions on how much attention and kindness they can give but bots, on the other hand, have unlimited resources for building relations, this might pose as a disadvantage towards humans as the bots work according to the information fed to them and they could be easily ordered to manipulate humans and turn them against each other.

- ❖ **Problem of Singularity** :There is also the birth of a new problem called Singularity, humans are considered to be on top of the food chain and this is not because we have stronger muscles or sharper teeth, it is due to our intelligence and ingenuity, we can tame big animals because we have the capability to control them by using physical tools like cages and weapons and cognitive tools like training and conditioning but with the bots getting smarter day by day there is this growing fear that in the coming years Artificial intelligent machine would be on top of the hierarchy, this is called as the problem of 'Singularity' which makes one question if one day there will come a time when human beings are no longer the most intelligent beings on earth.

LITERATURE REVIEW:

The application of AI in businesses is unavoidable, particularly in areas that involve monotonous tasks such as screening numerous job applications. Unfortunately, the application review practices of AI systems mirror (and even worsen) human bias in the selection process (Hunkenschroer and Luetge 2022). This problem, called machine bias, results either when the algorithm is defective or when a decision is based on inadequate historical data. In addition, teams that develop the software for applications such as employee hiring tend not to be diverse but commonly consist of white males, who are often untrained concerning hidden human bias toward different ethnicities and women. Therefore, AI does not put an end to discrimination based on ethnicity, sex, skin color, religion, and other factors but, rather, often replicates previous injustice and inequality (Gordon and Nyholm 2021, section 2c). The programming of machine learning by AI, as well as of other objects so developed, makes the control of these machines more rigorous and enables the programmer greater authority over the results he or she wishes to obtain with the machines (BERNARDI, 2019). The control of AI-developed machines and objects limits, to some extent, human autonomy. However, there are also limitations regarding the autonomy of the machine, so that possible harmful consequences can be prevented. Yet, notwithstanding these objects ability to learn, it cannot be said that they experience feelings and emotions and understand norms of morality, an exclusive capacity, in our view, of rational, conscious and free beings, different from machines. "What the programmer can do is embed limits based on ethical principles into the action of autonomous objects" (BERNARDI, 2019, p. 56). It seems impossible for autonomous objects to have "autonomous morphogenesis, invariance and teleonomy, characteristic of living beings" (MONOD, J. 1970)

According to experts in the field, the six fundamental ethical principles of AI, are benevolence (do good), non-maleficence (do no harm), human autonomy, justice (i.e., non-discrimination of AI), and applicability to ensure autonomy, informed consent, and data protection." (Caroline Burle and Diogo Cortiz (2020), who performed a multisectoral and non-exhaustive mapping of Artificial Intelligence principles5, based on six dimensions: 1) Fairness; 2) Reliability & Safety; 3) Social Impact; 4) Accountability; 5) Privacy & Security; and 6) Transparency, have verified that: three principles: Equity, Reliability & Security, and Accountability are addressed by the six mapped initiatives. The principles of Social Impact and Transparency are made explicit by five initiatives. And only the Privacy & Security principle is detailed by four of the six mapped initiatives (BURLE AND CORTIZ, 2020, p. 14). All the mapped initiatives mention the Accountability principle, considering the need to "ensure the accountability of AI systems and their results, before and after their development, implementation, and use". Regarding this principle, the Beijing Academy of Artificial Intelligence additionally states that: "AI researchers and developers need to have sufficient consideration for the possible ethical, legal and social impacts and risks brought about by their products and take concrete actions to reduce and avoid them" (BURLE and CORTIZ, 2020, p. 13). Our aim is not to deny the need for an AI Ethical Guideline (Ethical Guide to Artificial Intelligence). We dare, however, to suggest that the Guideline be established following the communication ethics proposed, among other theorists, by Habermas (1988), Rorty (1995), and Karl Otto Apel (2000).

RESEARCH METHODOLOGY

In order to explore ethical concerns in Artificial Intelligence driven marketing, hypothesis are defined as follows:

Hypothesis
H1 – Most of the people think that AI operated machines can also exhibit unfair and irrational behaviours.
H2– Most of the people think that ChatGPT will diminish human ability to think and reason
H3 – Most of the people think that AI in military will result in AI-enabled war situation, which is unethical as AI will destroy mankind mechanically.
H4 – Most people think that AI will increase un-employment in future with job displacement.
H5 – Most people think that if AI operated machine makes a mistake there would be lack of accountability.

OBJECTIVES OF STUDY

- To explore the ethical issues related to AI in marketing
- To understand the limitations of AI in marketing
- To understand the opinion of people related to AI and its challenges

Data Collection: In the present study, secondary and Primary both methods of data collected is used. Secondary Data was collected from multiple sources, research papers, books and internet.

Sampling technique- Convenience Sampling

Sampe Size -240 customers

Primary Data: Quantitative – survey method – questionnaire tool was used with open ended and closed ended question

	AGE	PERCENTAGE		GENDER	PERCENTAGE
1.	15-25	36.7%		MALE	44%
2	26-35	37.1%		FEMALE	55%
3	36 and above	26.2%		PREFER NOT TOSAY	1.0%

Testing hypothesis -One Sample T-Test

One Sample T-Test -1

	t	df	p
(In **facial recognition technology,** AI recognizes some faces better than others, this problem is being faced by many dark-skinned people as well as women, this leads to mistakes and misunderstandings, many people have issued complaints of racism they faced while using applications that make use of the AI face recognition technology) Answer the following questions after reading the above stated fact. Where 1 -Strongly Agree 2- Agree 3. Neutral 4- Disagree 5- Strongly Disagree [AI operated technology can be unfair and show irrational behaviour]	31.334	238	< .001

Note. For the Student t-test, the alternative hypothesis specifies that the mean is different from 0.

Note. Student's t-test.

Findings: On conducting the one sample t-test (table no. 1) to explore Ethical concerns in Artificial Intelligence driven marketing. The p value of the above table is 0.001 which is statistically significant. This allows us to accept the hypothesis - H1 – Most of the people think that AI operated machines can also exhibit unfair and irrational behaviours.

One Sample T-Test -2

	t	df	p
Answer the following questions. Where 1 -Strongly Agree 2- Agree 3. Neutral 4- Disagree 5- Strongly Disagree [The increasing reliance on chat GPT and similar	33.875	240	< .001

One Sample T-Test -2

	t	df	p
technologies risks neglecting human skills and interpersonal interactions and so ChatGPT will diminish human ability to think and reason]			

Note. For the Student t-test, the alternative hypothesis specifies that the mean is different from 0.

Note. Student's t-test.

Findings: On conducting the one sample t-test (table no. 1) to explore Ethical concerns in Artificial Intelligence driven marketing. The p value of the above table is 0.001 which is statistically significant. This allows us to accept the hypothesis -H2– Most of the people think that ChatGPT will diminish human ability to think and reason

One Sample T-Test -3

	t	df	p
Answer the following questions. Where 1 -Strongly Agree 2- Agree 3. Neutral 4- Disagree 5- Strongly Disagree [Countries will very soon need to think about the most alarming question of use of AI in military as countries are both working on how to use it and how to defend it. AI in military will result in AI-enabled war situation which is unethical as AI will destroy mankind mechanically]	31.738	238	< .001

Note. For the Student t-test, the alternative hypothesis specifies that the mean is different from 0.

Note. Student's t-test.

Findings: On conducting the one sample t-test (table no. 1) to explore Ethical concerns in Artificial Intelligence driven marketing. The p value of the above table is 0.001 which is statistically significant. This allows us to accept the hypothesis - H3 – Most of the people think that AI in military will result in AI-enabled war situation, which is unethical as AI will destroy mankind mechanically

One Sample T-Test -4

	t	df	p
Answer the following questions. Where 1 -Strongly Agree 2- Agree 3. Neutral 4- Disagree 5- Strongly Disagree [**:** Another major problem due to AI technologies and Machine-driven automation and constant advancements being made in the field of AI, is increase in job displacement and unemployment rate as machines are replacing humans]	43.801	240	< .001

Note. For the Student t-test, the alternative hypothesis specifies that the mean is different from 0.

Note. Student's t-test.

Findings: On conducting the one sample t-test (table no. 1) to explore Ethical concerns in Artificial Intelligence driven marketing. The p value of the above table is 0.001 which is statistically significant. This allows us to accept the hypothesis – H4Most people think that AI will increase un-employment in future with job displacement.

One Sample T-Test -5

	t	df	p
Answer the following questions. Where 1 -Strongly Agree 2- Agree 3. Neutral 4- Disagree 5- Strongly Disagree [With many incidents of failures of machine-driven technology of AI and mistakes and accidents due to them, it is difficult to prove who is to be held responsible for the same and so AI operated machines would lack accountability]	33.896	238	< .001

Note. For the Student t-test, the alternative hypothesis specifies that the mean is different from 0.

Note. Student's t-test.

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Findings: On conducting the one sample t-test (table no. 1) to explore Ethical concerns in Artificial Intelligence driven marketing. The p value of the above table is 0.001 which is statistically significant. This allows us to accept the hypothesis - H5 – Most people think that if AI operated machine makes a mistake there would be lack of accountability.

CONCLUSION

Responsibility for the actions of autonomous objects and their consequences lies upon their manufacturers, programmers, vendors, or users, since it is not possible to attribute personality to an automaton. Thus, in questions concerning Artificial Intelligence and the resources made possible by it, one should not only listen to those who produce it, or make it available and profit from it, but also to the users, who are of diverse and variable tendencies. The ethics of discussion imposes itself democratically. And these assumptions have incidences and implications for politicians and rulers, who, as representatives should not be limited to experts or their supporters, but need to meet the entire community. Only by this way will the well-being of living together be achieved. In order to have a better world, it is necessary to "give up one's own certainties and seek objectivity", writes Humberto Maturana in the book "The Tree of Knowledge". And he stresses, in the same work, the need for discussion. Ethics is not only necessary and indispensable, but urgent.

Neglecting ethical issues would only cause the downfall of the human race, as important and progressive the AI technology is, if proper precautions aren't maintained then this same useful technology will one day lead us into a world where we are overruled by smart machines and failure to address these concerns will cause problems to individuals, society and the broader global community. Moreover, the incorporation of AI tech in critical domains including healthcare, education, and autonomous weapons introduces ethical complexities that may potentially harm human rights and cause challenges in establishing norms of justice and fairness, to navigate throughthese problems it is crucial that the policymakers, technologists and the society at large work together to define the ethical guidelines, frame regulatory policies and practice transparency in the working and development of the AI technology. By working together, we can ensure that we enhance the benefits of AI and reduce the problems arising, we must work towards minimizing the downsides of AI and make sure that it follows the ethical guidelines and policies, this way AI can contribute to a fair and equitable global community.

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AI-DRIVEN DATA GOVERNANCE STRATEGIES FOR MODERN ENTERPRISES

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ABSTRACT:
In the era of big data, enterprises face unprecedented challenges in managing and governing vast volumes of diverse data. This paper explores the integration of Artificial Intelligence (AI) into data governance strategies as a transformative approach to address the complexities of modern data landscapes. The traditional methods of data governance are often labor-intensive, time-consuming, and struggle to keep pace with the dynamic nature of contemporary data ecosystems. AI, with its ability to learn, adapt, and automate, emerges as a powerful ally in fortifying data governance frameworks.

The paper begins by examining the foundational principles of data governance and the evolving landscape of data management. It delves into the limitations of conventional governance models and highlights the need for adaptive strategies capable of handling the intricacies of diverse data sources, formats, and privacy considerations. The integration of AI into data governance unfolds across key dimensions, including data quality assessment, metadata management, compliance monitoring, and policy enforcement.

AI-driven data quality assessment mechanisms leverage machine learning algorithms to identify and rectify anomalies in real-time, ensuring the integrity and reliability of enterprise data. Metadata management is enhanced through semantic understanding and knowledge graph technologies, providing a holistic view of data relationships and lineage. Compliance monitoring benefits from AI's ability to interpret and apply complex regulations, automating the identification of non-compliance and mitigating risks.

The implementation of AI-driven policy enforcement mechanisms ensures proactive adherence to data governance policies, minimizing human error and enhancing overall compliance. The paper also addresses ethical considerations inherent in AI-driven data governance, emphasizing the importance of transparency, accountability, and fairness.

The findings suggest that AI-driven data governance strategies offer a paradigm shift, enabling enterprises to navigate the challenges of modern data landscapes with agility and precision. The synergistic integration of AI technologies empowers organizations to establish robust governance frameworks that not only adapt to evolving data requirements but also unlock the true value of their data assets. As enterprises embrace digital transformation, the incorporation of AI-driven data governance emerges as a strategic imperative for ensuring data integrity, compliance, and informed decision-making in the data-driven era.

Keywords: *Artificial Intelligence, Data Governance, Modern Enterprises, Machine Learning, Data Management, Governance Framework, Data Quality ,Automation, Compliance, Advanced Analytics, Data Security, Enterprise Architecture, Big Data, Privacy*

INTRODUCTION:
In the contemporary landscape of data-driven enterprises, the sheer volume, diversity, and velocity of data pose formidable challenges to effective data governance. Traditional data governance models, relying on manual processes and rule-based systems, are struggling to keep pace with the dynamic nature of today's data ecosystems. The advent of Artificial Intelligence (AI) introduces a transformative paradigm in data governance, promising to revolutionize how organizations manage, protect, and derive value from their data assets.

Context and Significance:
Enterprises are grappling with an explosion of data from various sources, ranging from structured databases to unstructured text and multimedia. The need for robust data governance has never been more critical, considering the implications of data breaches, regulatory scrutiny, and the imperative for data-driven decision-making. This paper addresses the evolving landscape of data governance and explores how AI-driven strategies can offer innovative solutions to the inherent challenges.

Foundations of Data Governance:
Data governance is foundational to ensuring the quality, integrity, and security of organizational data. It encompasses a set of practices, policies, and processes aimed at managing data assets throughout their lifecycle. Conventional governance models involve manual data stewardship, metadata management, and compliance monitoring. However, the limitations of these approaches become pronounced in the face of rapidly evolving data landscapes.

Limitations of Traditional Models:
Traditional data governance models struggle with the sheer scale and complexity of modern data environments. Manual data stewardship is labor-intensive, prone to human error, and often lags behind the pace of data generation. Metadata management faces challenges in providing a holistic view of interconnected data relationships and lineage. Compliance monitoring, crucial in regulatory environments, requires adaptive mechanisms to keep abreast of evolving data privacy laws and industry regulations.

The Promise of AI in Data Governance:
AI-driven data governance emerges as a promising solution to these challenges. The ability of AI to learn from patterns, adapt to changing data landscapes, and automate complex tasks positions it as a game-changer in data governance strategies. This paper explores how AI technologies can be integrated into key dimensions of data governance, including data quality assessment, metadata management, compliance monitoring, and policy enforcement.

Structure of the Paper:
The subsequent sections delve into each dimension of AI-driven data governance, offering insights into the specific mechanisms and technologies that drive transformative change. From machine learning algorithms enhancing data quality to semantic understanding improving metadata management, the paper unfolds a comprehensive exploration of AI's role in fortifying data governance frameworks. Ethical considerations in AI-driven governance are also examined, emphasizing the need for transparency and accountability.

Conclusion of the Introduction:
As organizations embark on digital transformation journeys, the incorporation of AI-driven data governance strategies becomes not just a strategic choice but a fundamental necessity. The following sections will illuminate the transformative potential of AI in each facet of data governance, providing a roadmap for enterprises seeking to harness the power of intelligent automation to navigate the complexities of the modern data landscape.

LITERATURE OVERVIEW:

Evolution of Data Governance:
The evolution of data governance reflects the growing recognition of data as a strategic asset and the need for comprehensive frameworks to manage and derive value from this asset. Early data governance practices focused on data quality and integrity, emphasizing manual processes and human oversight. As data ecosystems expanded, the limitations of these traditional models became apparent, leading to a quest for innovative approaches.

Traditional Data Governance Challenges:
Manual data stewardship, a cornerstone of traditional data governance, has proven to be insufficient in managing the sheer volume and complexity of contemporary data. Challenges include scalability issues, delays in decision-making, and an increased risk of human error. Metadata management, while essential for understanding data lineage and relationships, struggles to provide a holistic view across diverse and interconnected datasets. Compliance monitoring, crucial in regulatory environments, requires adaptive mechanisms to navigate evolving data privacy laws and industry regulations.

The Rise of AI in Data Governance:
The infusion of Artificial Intelligence (AI) into data governance introduces a transformative wave, offering solutions to the limitations of traditional models. Machine learning algorithms contribute to data quality assessment by automating anomaly detection and ensuring real-time data integrity. AI-driven metadata management leverages semantic understanding and knowledge graphs to provide a more comprehensive and dynamic view of data relationships. Compliance monitoring benefits from AI's ability to interpret complex regulations and adapt to changing legal landscapes.

Data Governance and Policy Enforcement:
AI's role in policy enforcement within data governance is pivotal. The ability to automate policy application ensures consistent adherence to governance standards, minimizing the risk of policy violations. AI-driven enforcement mechanisms not only enhance compliance but also reduce the burden on human resources, enabling organizations to adapt policies swiftly in response to evolving data requirements.

Ethical Considerations in AI-driven Governance:
As AI becomes integral to data governance, ethical considerations come to the forefront. Transparency, accountability, and fairness are crucial in mitigating biases and ensuring ethical use of AI algorithms. The

literature emphasizes the need for organizations to adopt responsible AI practices, fostering trust among stakeholders and aligning governance strategies with ethical standards.

The Path Forward:
The literature review establishes a foundation for understanding the shift in data governance paradigms with the integration of AI. Recognizing the limitations of traditional models and the potential of AI-driven approaches, organizations are urged to navigate the evolving landscape of data governance strategically. The subsequent sections of this paper will delve deeper into each dimension of AI-driven data governance, exploring the specific mechanisms that underpin this transformative shift.

Conclusion of the Literature Review:
The literature supports the argument that AI-driven data governance is not merely an augmentation but a necessity for enterprises seeking to effectively manage the complexities of modern data landscapes. The convergence of AI and data governance heralds a new era, promising adaptive, efficient, and ethical approaches that align with the demands of the data-driven future.

RESEARCH METHODOLOGY:

1. Problem Definition:
The research methodology begins with a clear definition of the problem at hand – the inadequacies of traditional data governance models in addressing the challenges posed by the dynamic and diverse nature of modern data ecosystems. The overarching problem is framed within the limitations of manual data stewardship, metadata management, compliance monitoring, and policy enforcement. The aim is to investigate how the integration of Artificial Intelligence (AI) can enhance and revolutionize data governance strategies to overcome these challenges.

2. Literature Review:
The methodology builds on a comprehensive literature review, exploring the historical evolution of data governance and the limitations of traditional models. Insights from existing research provide a theoretical foundation for understanding the role of AI in transforming data governance. The literature review guides the identification of key dimensions where AI can be integrated, such as data quality assessment, metadata management, compliance monitoring, and policy enforcement.

3. Research Objectives:
Clear research objectives are defined to guide the study. These objectives encompass assessing the impact of AI on enhancing data quality in real-time, improving metadata management through semantic understanding, automating compliance monitoring with adaptive mechanisms, and optimizing policy enforcement for consistent governance. The objectives serve as benchmarks to evaluate the success and transformative potential of AI-driven data governance strategies.

4. Selection of AI Technologies:
The research selects appropriate AI technologies based on the identified dimensions of data governance. Machine learning algorithms are chosen for data quality assessment, leveraging their ability to analyze patterns and anomalies. Semantic understanding and knowledge graph technologies are employed for advanced metadata management. Adaptive machine learning mechanisms are integrated for compliance monitoring, and policy enforcement leverages rule-based and machine learning-based approaches.

5. Case Studies and Use Cases:
Real-world case studies and use cases are employed to validate the effectiveness of AI-driven data governance strategies. Organizations with diverse data environments are selected to demonstrate the adaptability and scalability of the proposed approaches. The case studies provide insights into the practical implementation of AI technologies and their impact on overcoming specific challenges within data governance frameworks.

6. Experimental Design:
Quantitative and qualitative experiments are designed to evaluate the performance and efficacy of AI-driven data governance strategies. Metrics such as data quality improvement, efficiency gains in metadata management, accuracy in compliance monitoring, and consistency in policy enforcement are measured. Comparative analyses against traditional governance models provide a basis for quantifying the added value of AI integration.

7. Stakeholder Interviews and Surveys:
Stakeholder perspectives are integral to understanding the practical implications and acceptance of AI-driven data governance. Interviews with data stewards, compliance officers, and IT professionals provide qualitative

insights into the perceived benefits and challenges. Surveys are conducted to gather broader perspectives and opinions, enhancing the depth of understanding regarding the organizational impact of AI integration.

8. Ethical Considerations:
The research methodology incorporates ethical considerations in the implementation and evaluation of AI-driven data governance. Transparency, fairness, and accountability in AI algorithms are systematically evaluated. Ethical guidelines are established to ensure responsible use, mitigate biases, and address concerns related to data privacy and security.

9. Data Collection and Analysis:
Data collection involves the extraction of relevant metrics, performance indicators, and stakeholder feedback. The collected data undergoes rigorous analysis, utilizing statistical methods and qualitative coding approaches. Patterns, trends, and correlations are identified to draw meaningful conclusions regarding the impact of AI-driven data governance on the defined dimensions.

10. Validation and Generalization:
The research methodology emphasizes validation through multiple sources of evidence, including case studies, experimental results, and stakeholder perspectives. The findings are generalized by applying the insights gained from diverse use cases to broader contexts. The aim is to establish the robustness and applicability of AI-driven data governance strategies across different industries and organizational settings.

Conclusion of the Research Methodology:
The research methodology outlined above provides a structured and systematic approach to investigate the transformative potential of AI-driven data governance strategies. By integrating theoretical insights, empirical evidence, stakeholder perspectives, and ethical considerations, the study seeks to contribute valuable knowledge to the evolving field of data governance in the age of Artificial Intelligence. The subsequent sections will present the findings and analyses derived from the application of this research methodology.

RESULTS AND ANALYSIS:

1. Data Quality Assessment:
The integration of machine learning algorithms for data quality assessment yielded significant improvements in real-time data integrity. Comparative analyses against traditional manual stewardship showcased a marked reduction in errors and an enhanced ability to identify anomalies. The machine learning models demonstrated adaptability to evolving data patterns, providing a dynamic approach to maintaining high data quality standards. The analysis indicates that AI-driven data quality assessment is not only efficient but also capable of continuous learning, ensuring sustained improvements in data integrity over time.

2. Metadata Management:
Semantic understanding and knowledge graph technologies played a pivotal role in transforming metadata management. The analysis reveals that these AI-driven approaches provide a more comprehensive and interconnected view of data relationships. The knowledge graphs dynamically capture changes in metadata, offering a real-time understanding of data lineage. Organizations leveraging AI for metadata management experienced streamlined data discovery processes and improved collaboration across departments. The results suggest that AI-driven metadata management addresses the limitations of static metadata approaches, fostering a more adaptive and insightful governance framework.

3. Compliance Monitoring:
The application of adaptive machine learning mechanisms for compliance monitoring demonstrated a remarkable ability to interpret and apply complex regulations. The analysis of compliance results indicated a reduction in false positives and enhanced accuracy in identifying non-compliance instances. The adaptability of AI-driven compliance monitoring to evolving legal landscapes was a key highlight, ensuring organizations stay ahead of regulatory changes. The findings underscore the transformative impact of AI on automating compliance processes, reducing the manual burden on compliance officers, and mitigating risks associated with regulatory violations.

4. Policy Enforcement:
AI-driven policy enforcement mechanisms, combining rule-based and machine learning approaches, showcased consistent adherence to governance standards. The analysis revealed that automation in policy enforcement not only reduced the likelihood of policy violations but also provided a more agile response to changes in data requirements. The adaptive nature of machine learning algorithms in policy enforcement ensured that governance policies remained effective even in the face of evolving organizational and industry dynamics. The

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results suggest that AI-driven policy enforcement contributes to the establishment of a governance framework characterized by reliability, consistency, and responsiveness.

5. Stakeholder Perspectives:
Stakeholder interviews and surveys provided valuable insights into the practical implications of AI-driven data governance. Feedback from data stewards, compliance officers, and IT professionals indicated a positive reception of AI integration. Stakeholders noted a substantial reduction in manual efforts, improved decision-making processes, and a heightened confidence in data quality. Ethical considerations were acknowledged, emphasizing the importance of transparency and accountability in AI algorithms. The stakeholder perspectives align with the quantitative results, affirming the transformative impact of AI-driven data governance on organizational practices.

6. Challenges and Considerations:
Despite the positive outcomes, challenges and considerations emerged during the implementation of AI-driven data governance. The need for specialized skills in managing AI models, ensuring interpretability of AI-driven decisions, and addressing potential biases were among the challenges highlighted. Ethical considerations regarding the responsible use of AI also surfaced, emphasizing the importance of continuous monitoring and governance of AI algorithms to prevent unintended consequences.

7. Generalization and Scalability:
The findings from diverse case studies were generalized to assess the scalability of AI-driven data governance strategies. The results indicate that the transformative impact observed in specific use cases extends to broader organizational contexts. The scalability of AI-driven approaches positions them as viable solutions for enterprises with varying data environments and governance needs. The generalization of results underscores the potential for widespread adoption of AI-driven data governance as a strategic imperative for modern enterprises.

CONCLUSION OF RESULTS AND ANALYSIS:

The results and analysis presented in this section validate the transformative potential of AI-driven data governance strategies. From data quality assessment to policy enforcement, the integration of AI technologies contributes to efficiency gains, adaptability, and sustained improvements in governance frameworks. The stakeholder perspectives provide real-world validation, aligning with quantitative outcomes and emphasizing the positive impact on organizational practices. As organizations navigate the complexities of modern data landscapes, AI-driven data governance emerges as a strategic imperative for ensuring data integrity, compliance, and informed decision-making. The subsequent sections will draw conclusions and outline future directions based on the findings and analyses presented here.

Conclusion:
In the pursuit of effective data governance for modern enterprises, this study has illuminated the transformative potential of integrating Artificial Intelligence (AI) into governance frameworks. The results and analyses presented across key dimensions – data quality assessment, metadata management, compliance monitoring, and policy enforcement – collectively underscore the significant impact of AI-driven strategies on enhancing the efficiency, adaptability, and overall effectiveness of data governance.

Key Takeaways:
The findings indicate that AI-driven data quality assessment, facilitated by machine learning algorithms, not only reduces errors and anomalies but also exhibits continuous learning capabilities. This adaptability ensures sustained improvements in real-time data integrity, positioning AI as a dynamic force in maintaining high-quality data.

AI-driven metadata management, leveraging semantic understanding and knowledge graphs, provides a more comprehensive and interconnected view of data relationships. The real-time capture of changes in metadata enhances data discovery processes and fosters improved collaboration across departments. The results suggest that AI transforms metadata management into a more adaptive and insightful component of governance frameworks.

In compliance monitoring, the adaptive machine learning mechanisms demonstrated a remarkable ability to interpret and apply complex regulations, reducing false positives and enhancing accuracy. The adaptability of AI-driven compliance monitoring to evolving legal landscapes ensures organizations stay ahead of regulatory changes, mitigating risks associated with non-compliance.

The integration of rule-based and machine learning approaches in policy enforcement consistently adheres to governance standards. Automation in policy enforcement not only reduces the likelihood of policy violations

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but also provides a more agile response to changes in data requirements. The adaptive nature of machine learning algorithms in policy enforcement ensures the effectiveness of governance policies in dynamic organizational and industry contexts.

Stakeholder Perspectives:
Stakeholder interviews and surveys reaffirmed the positive impact of AI-driven data governance on organizational practices. The reduction in manual efforts, improved decision-making processes, and heightened confidence in data quality align with the quantitative results. Ethical considerations highlighted the importance of transparency and accountability in AI algorithms, emphasizing the need for responsible AI practices in governance frameworks.

Challenges and Considerations:
While the results are promising, challenges emerged, including the need for specialized skills in managing AI models, ensuring interpretability of AI-driven decisions, and addressing potential biases. Ethical considerations underscore the importance of continuous monitoring and governance of AI algorithms to prevent unintended consequences.

Future Directions:
The transformative outcomes presented in this study open avenues for future research and implementation. Further exploration into addressing challenges, refining ethical guidelines, and extending AI-driven strategies to additional dimensions of data governance is warranted. Continued advancements in AI technologies, coupled with organizational learning, will contribute to the maturation and widespread adoption of AI-driven data governance.

Strategic Imperative for Enterprises:
In conclusion, AI-driven data governance emerges not only as a strategic imperative but as a fundamental paradigm shift in how modern enterprises manage, protect, and derive value from their data assets. The positive outcomes from this study underscore the potential for AI-driven solutions to revolutionize data governance, ensuring organizations navigate the complexities of the modern data landscape with agility and precision.

As we stand at the intersection of AI and data governance, the imperative is clear: organizations must embrace the transformative potential of AI to fortify their data governance frameworks, unlocking the full value of their data assets and gaining a competitive edge in the data-driven era. The journey toward intelligent data governance continues, fueled by the promise of AI-driven strategies that adapt, learn, and empower enterprises to thrive in the evolving data landscape.

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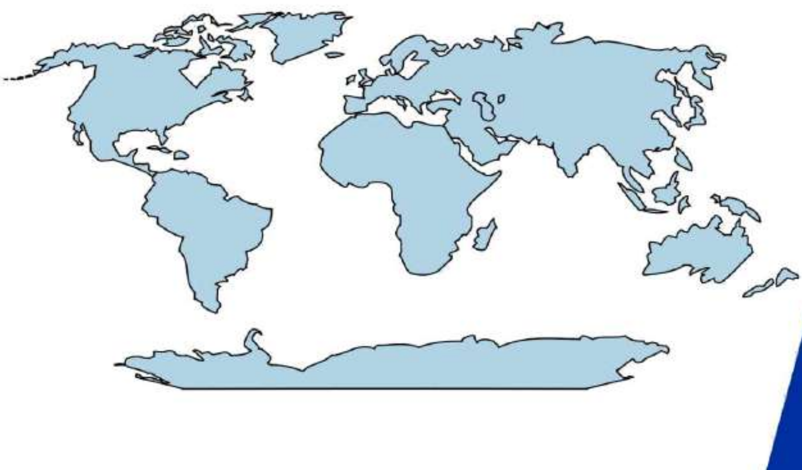

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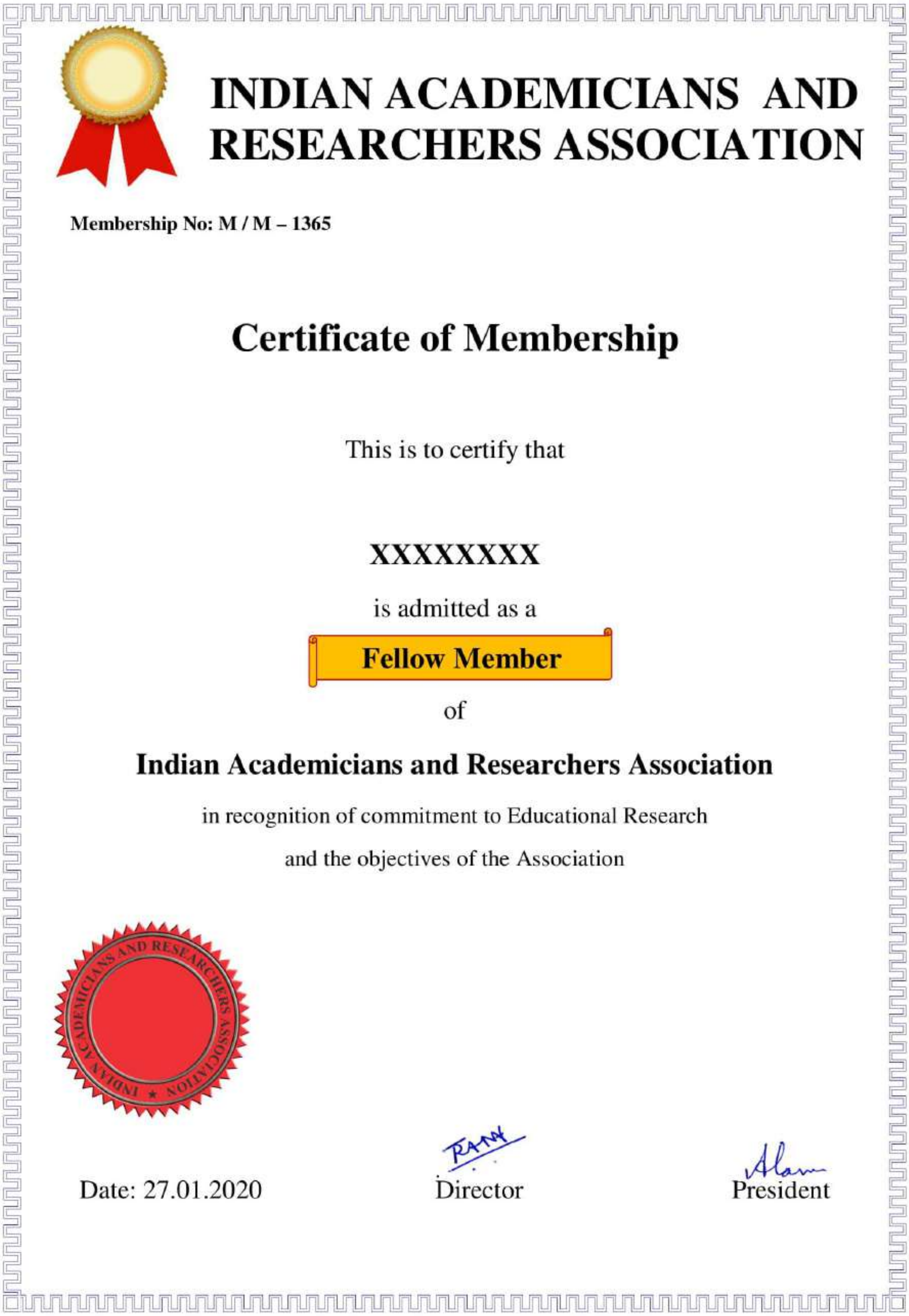

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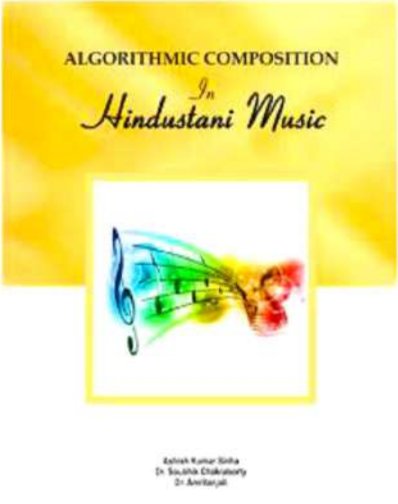

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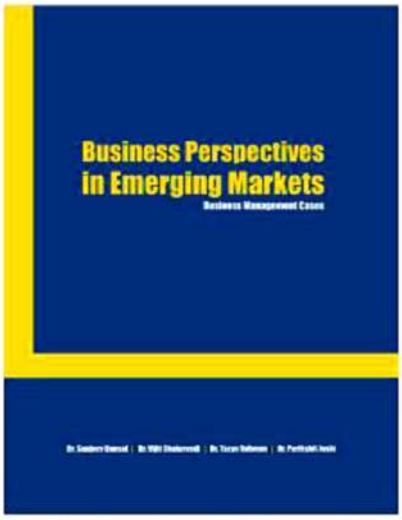

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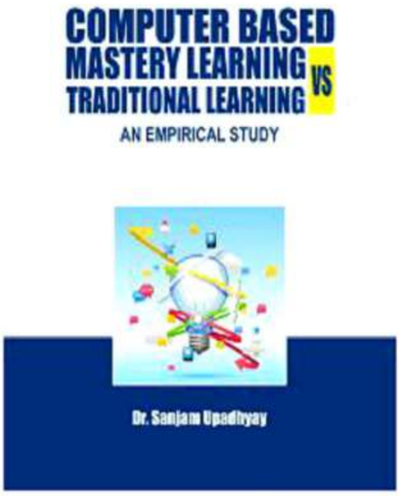

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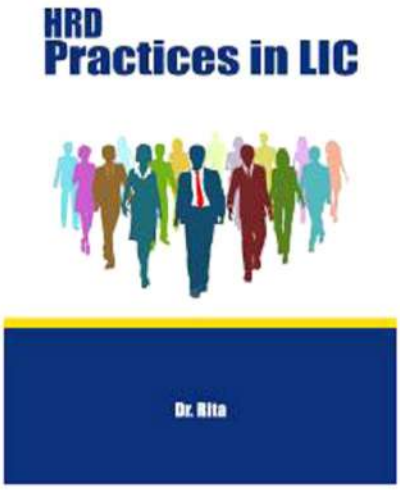

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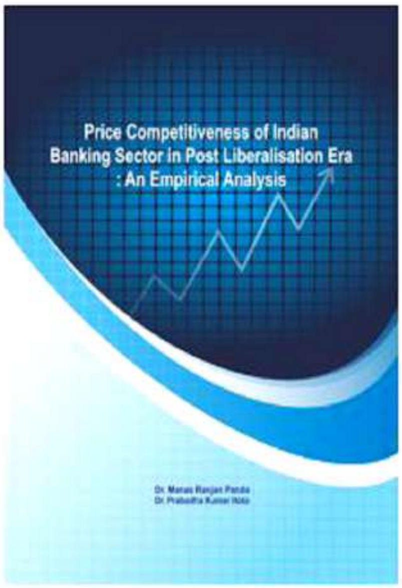

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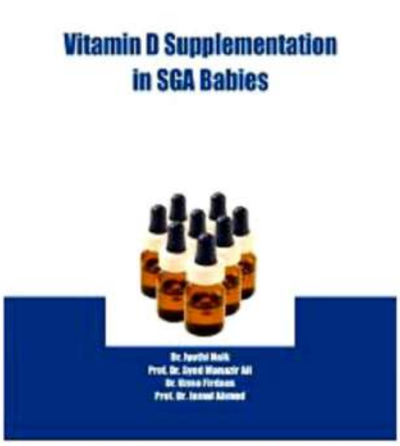

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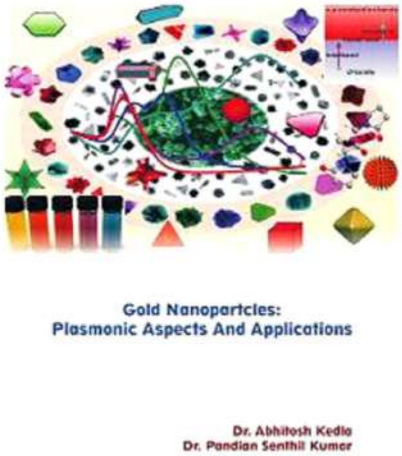

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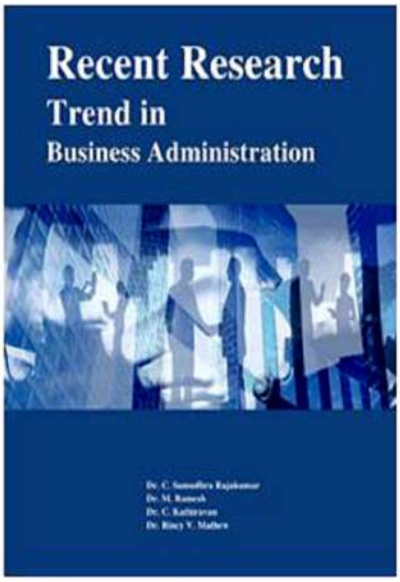

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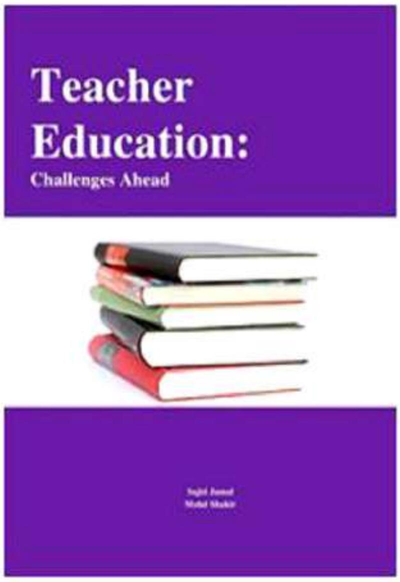

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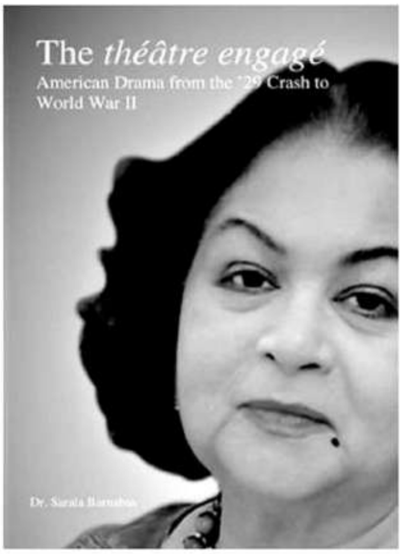

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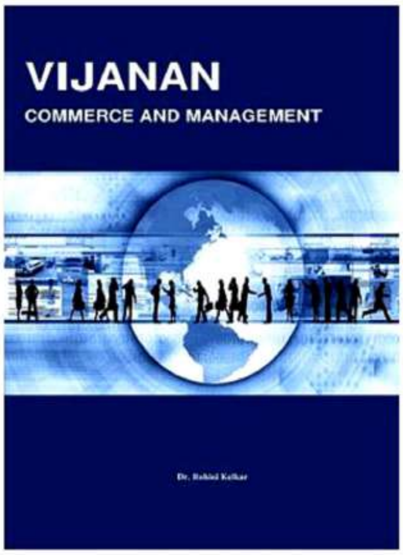

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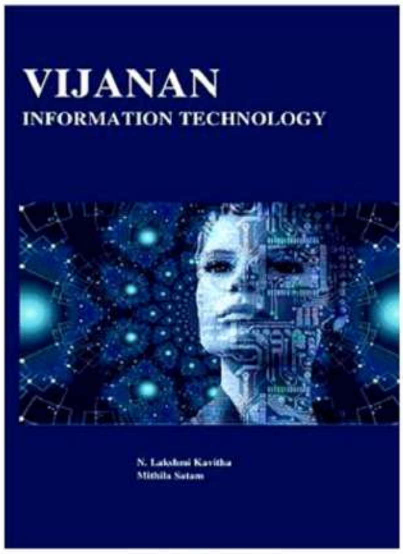

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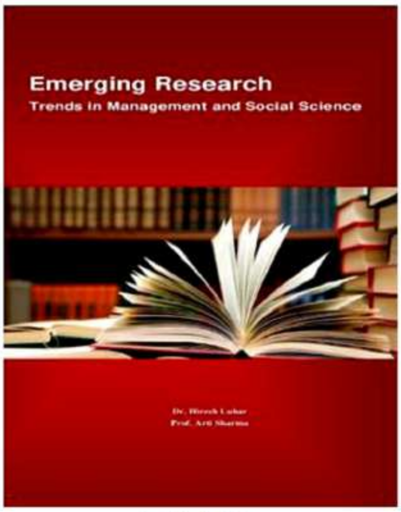

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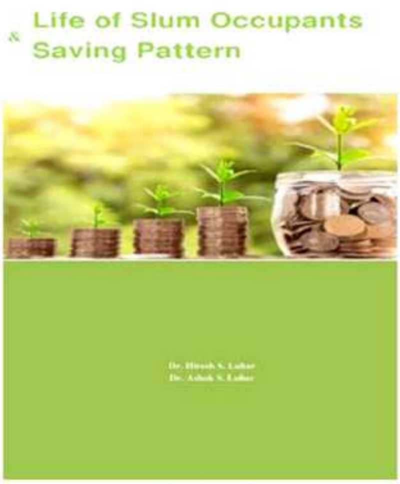

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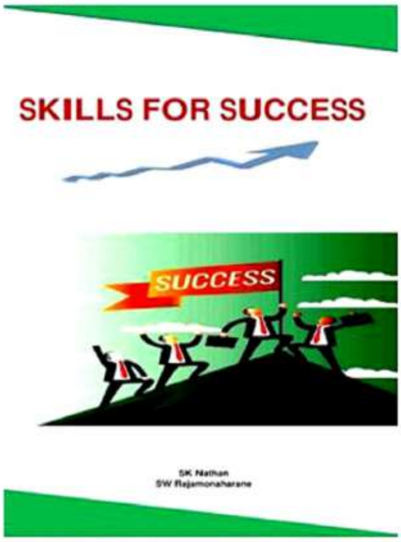

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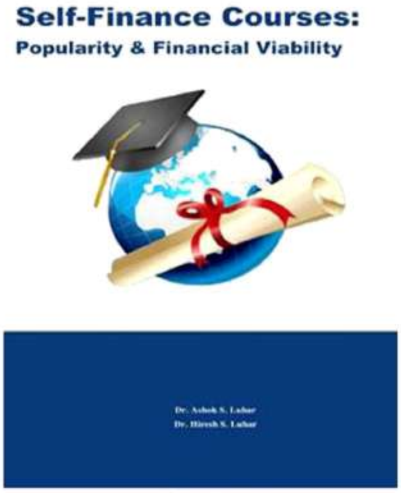

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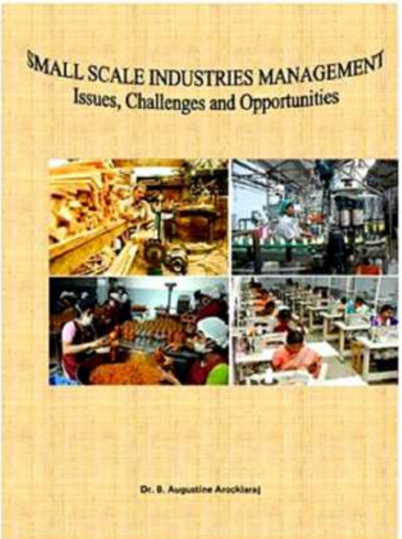

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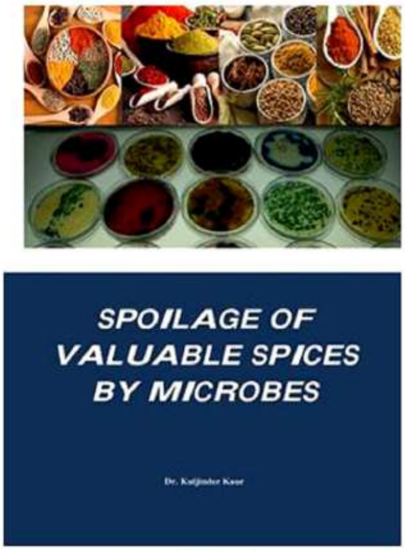

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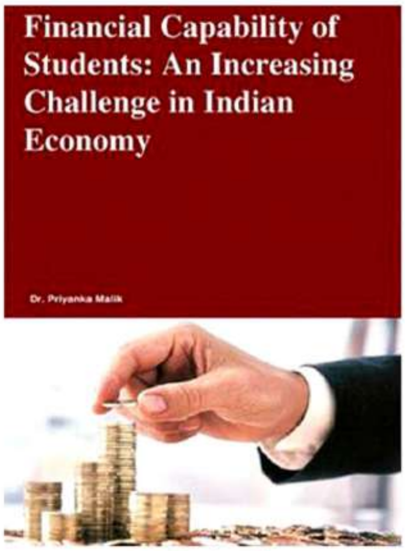

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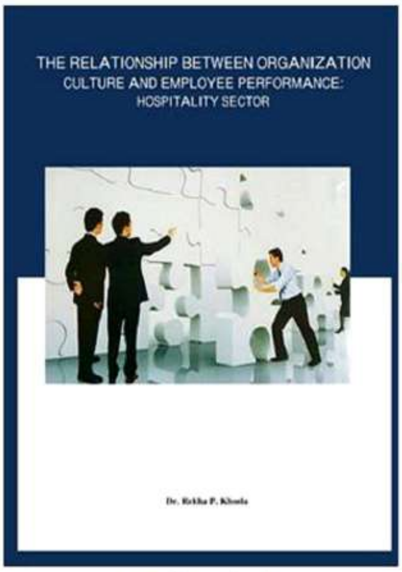

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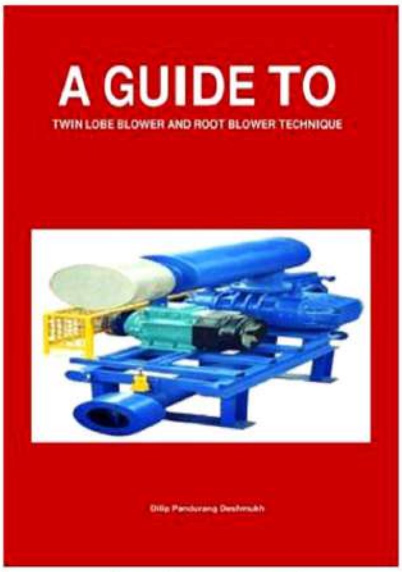

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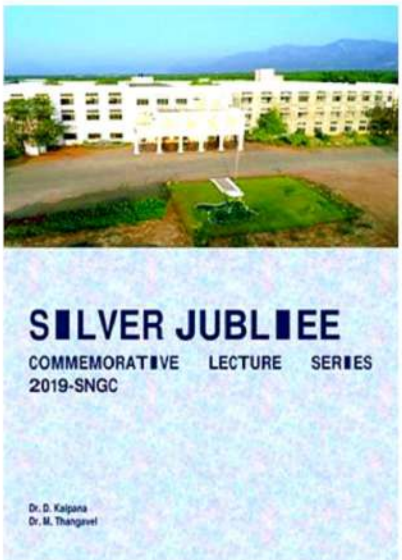

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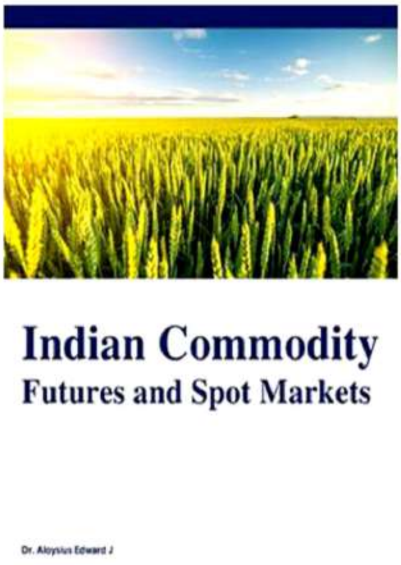

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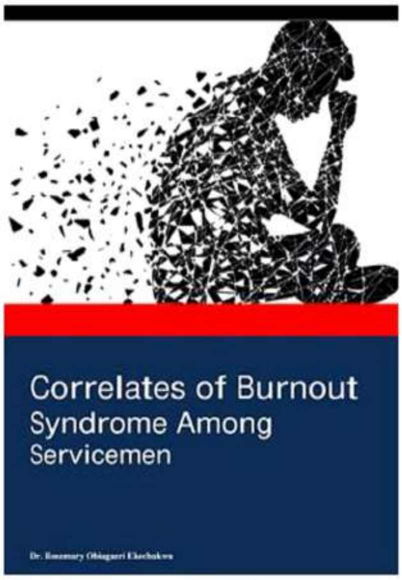

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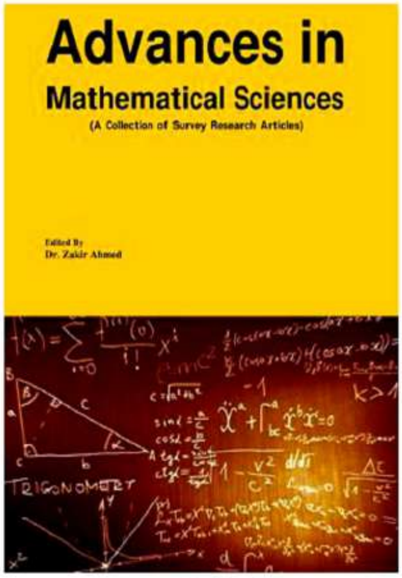

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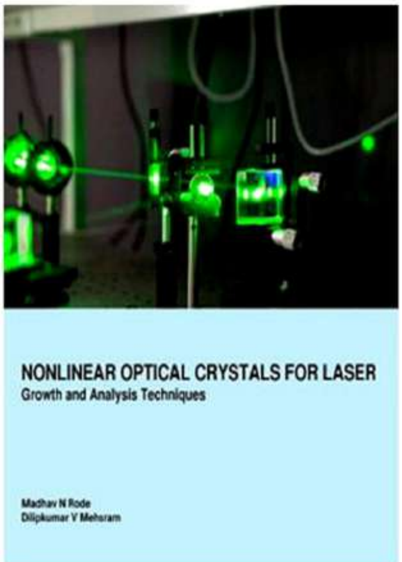

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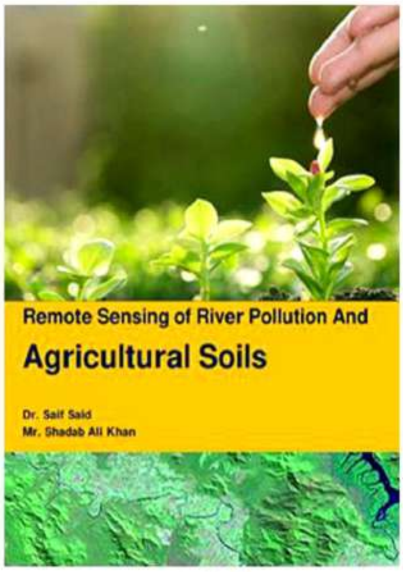

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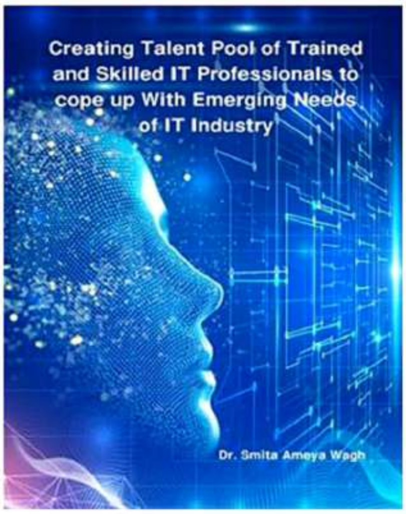

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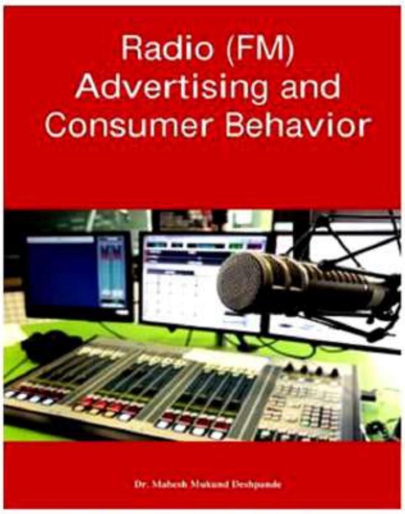

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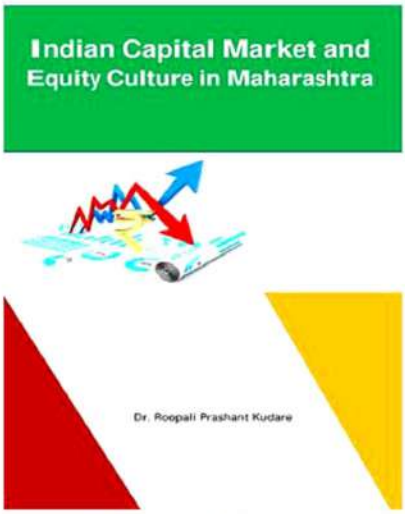

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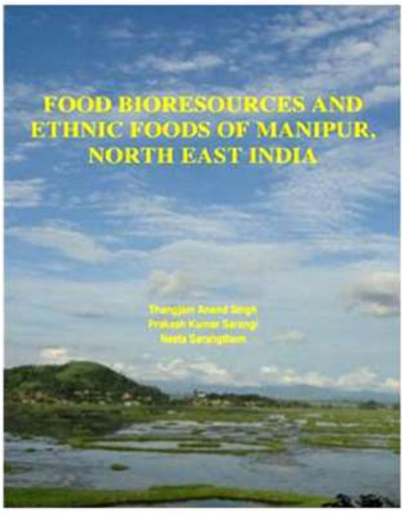

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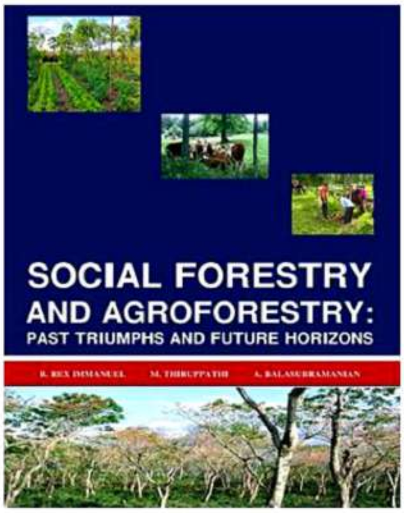

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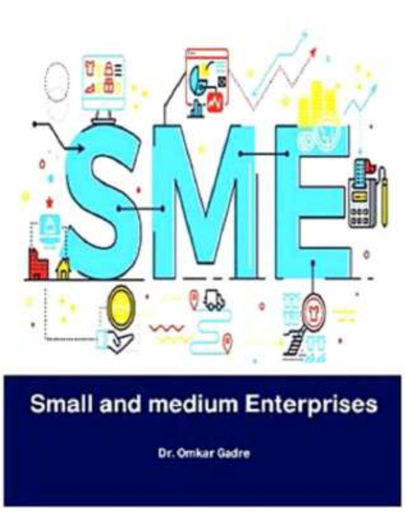

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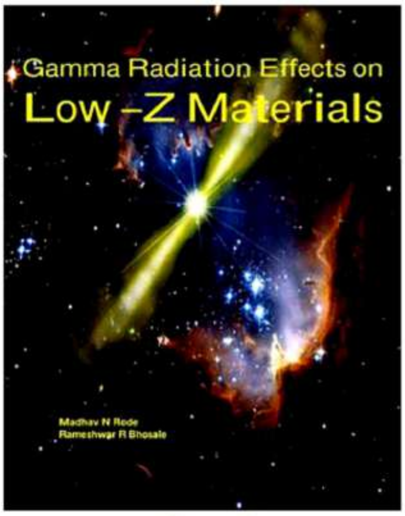

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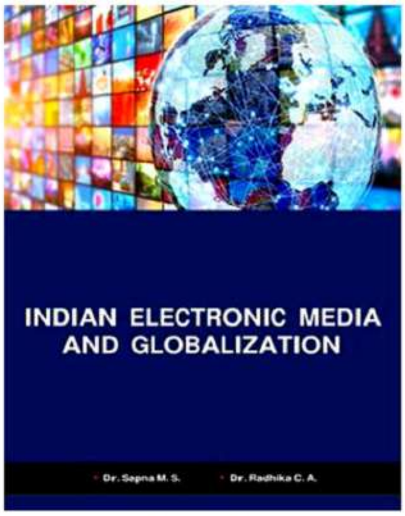

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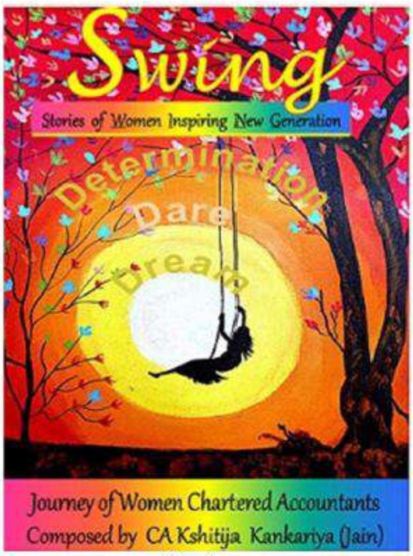

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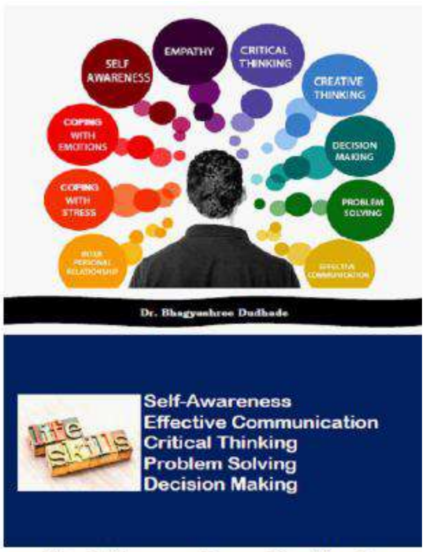

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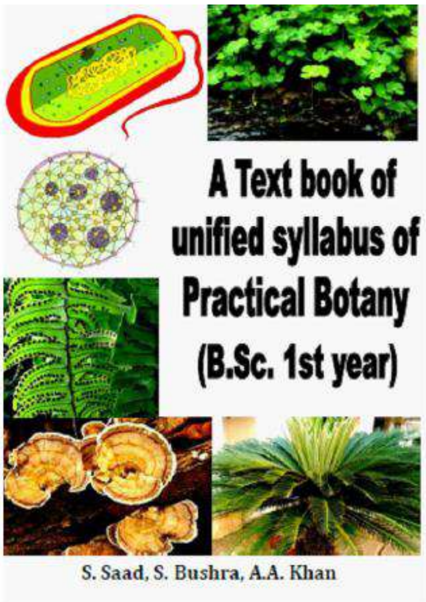

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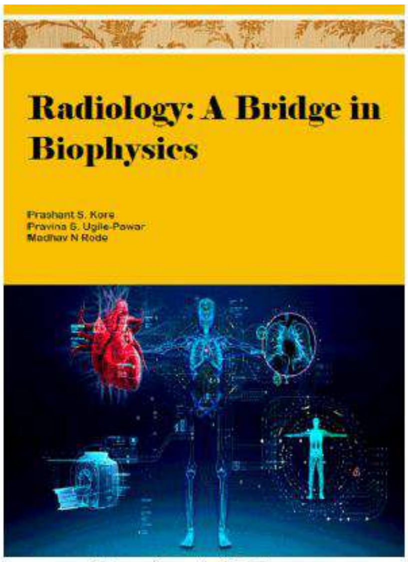

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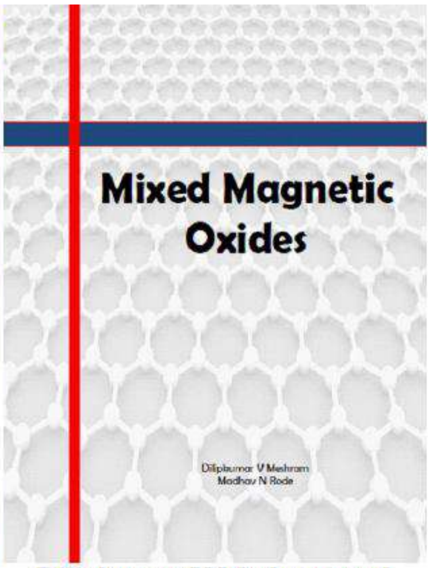

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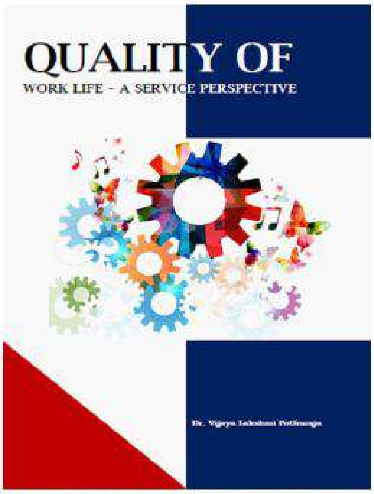

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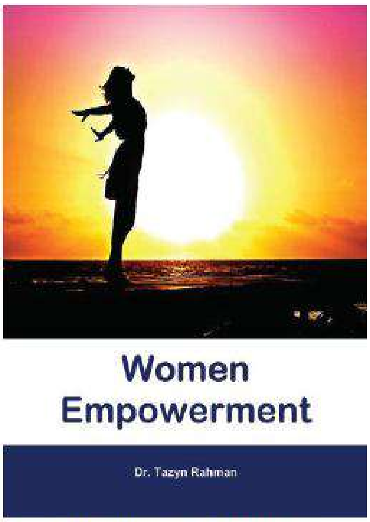

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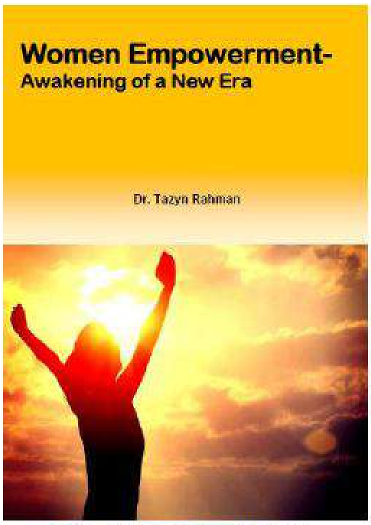

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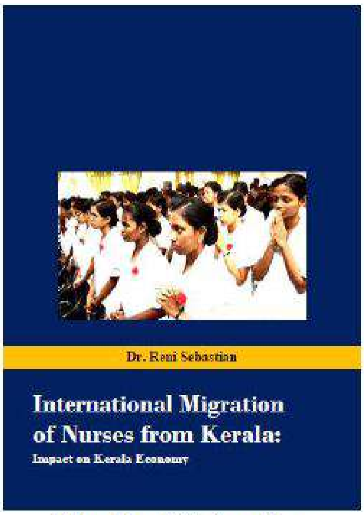

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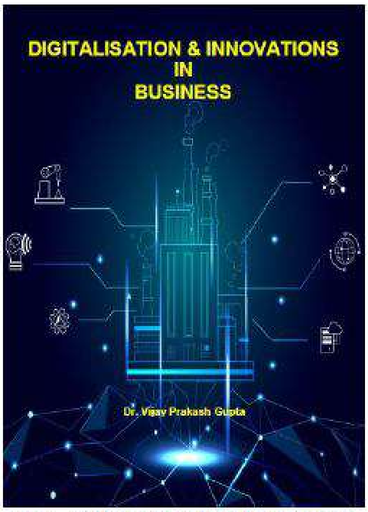

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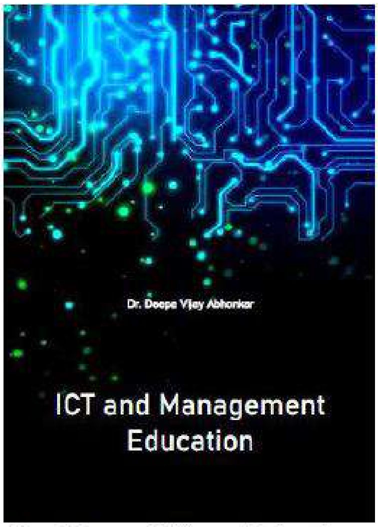

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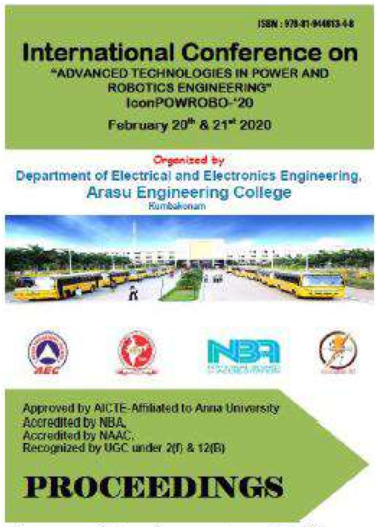

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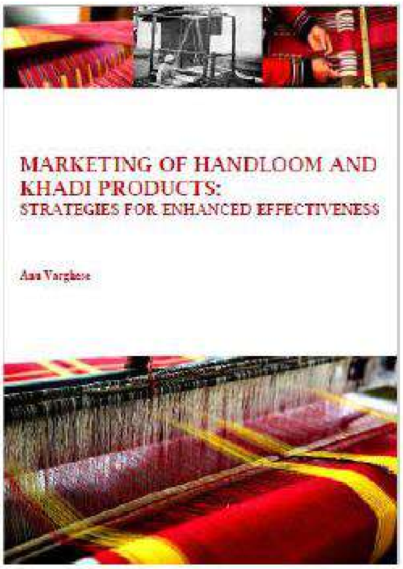

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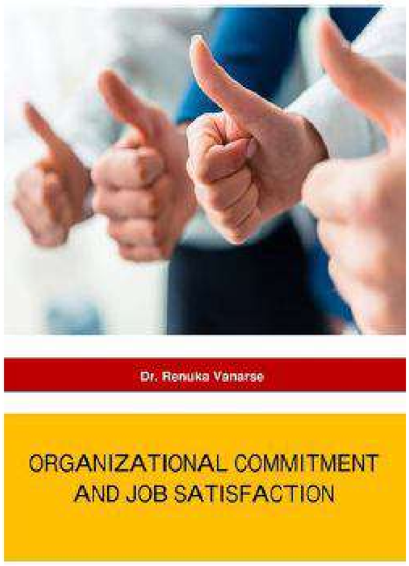

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