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Atharva Educational Trust

Message

From the founder secretary AET

Atharva Group is symbolic of Growth fuelled by a Passion for Innovation

The growth of Atharva was a truly ardous journey with several challenges. Today, Atharva is established among Mumbai's leading institutes in higher education standing amongst the preferred institutes in the feilds of Engineering, Business Management, IT, Hotel Management, Fashion, Film and TV as well as Drama and Performing Arts

Our commitment to provide global levels of education is total and the Atharva Group of Institutes is supported by a spacious and beautifuuly landscaped infrastructure that blends contemporary and traditional architecture.

AIMS has rigorously worked towards imparting global management philosophies to its students through its faculty, coming from diverse industry experience with sound academic research background. This blend is vital since we have to compete with the IIMs to get the best students.

Today, with over a decade of academic & research experience - Atharva Institute of management studies continues to impart "Thought Leadership" knowledge through its faculities and published research journals thus sharpening the skills of its management graduate and also supporting the Industry with ready professionals. AIMS students have continued to bag the institute several awards and accolades at various forums.

AIMS is ranked amongst the highest among B-Schools. All members of the Faculty play a critical role in administering the diverse academic and non-academic activities of the institute. Our aim, as always, is to nurture young, promising talent who will take their rightful place in the world of business with Confidence, Commitment and Competence!!!

Shri Sunil Rane, Executive President AET

Advisory Board

Dear Readers,

Managing the triple bottom line i.e. People, Planet & Profit is absolutely crucial for business sustainability. It helps organizations to manage their economic, social & environmental opportunities & risks.

It is imperative that we as "Human" race have to use resources which are available today, wisely, making sure that we leave some of them for ourfuture generations. Thus sustainable development is crucial for society, economy &environment. There are major challenges to this perspective. But several ambitious, collaborative action-oriented strategies have evolved over a period of time.

We present select papers presented during the conference, in this issue of our Journal.

Happy Reading!

Editorial Team

Contents

1. A comparative study of financial planning among Businessmen and working professionals in Mumbai

Dwiti Sanghvi - Atharva Institute of Management Studies, Mumbai, India
Tanvi Pawar - Atharva Institute of Management Studies, Mumbai, India

Abstract

The purpose of the study is to analyze financial planning strategies among working professionals and businessmen in the region of Mumbai. Financial planning is a crucial part of any individual. It helps to determine the goals and objectives of an individual and how to achieve them. Financial planning is especially important for working professionals as well as businessmen since they need to be aware of the risks associated and understand how to manage their finances. With the constant rise of prices and taxes, financial planning has become an integral part of our lives. It is essential for both working professionals and businessmen to have a proper financial plan in place. This research aims to compare the financial planning habits of working professionals and businessmen. The research will aim to understand their saving patterns, investment strategies, and other important factors that affect their respective financial plans. Furthermore, we will also try to understand the challenges faced by different age groups and genders in achieving their financial goals.

The findings of this research will benefit both groups as it will help identify the most suitable financial planning strategies for each group. Additionally, the findings can be used to develop better financial planning tools and services tailored to the needs of Mumbai's working professionals and businessmen. This research will also help to improve the overall financial literacy of citizens in the region of Mumbai.

Keywords: Saving and investment, financial planning, retirement planning, investment planning.

1. <u>Introduction</u>

In Mumbai, financial planning is essential for both working professionals and business owners. Nonetheless, these two groups' approaches to and priorities for achieving their financial objectives differ noticeably. Compared to employed professionals, businessmen typically have a greater level of financial literacy because of their entrepreneurial mentality. Their background in business management has given them a stronger understanding of wealth generation, risk management, and investment methods. However, apart from their personal money, working professionals might not be as familiar with financial principles. Frequently, they depend on conventional retirement plans provided by their companies or consult financial experts for advice.

Salaried individuals can save a portion of their salary because they have a set income. People with higher salaries must plan their investments through tax planning. The salaried class's income increases steadily, so they save aside some of their pay and invest it in both financial and non-financial assets. Afeti, F. A. (2022).

By exploring the distinctions in financial planning strategies between businesspeople and working professionals, we hope to offer insightful information on how people from various backgrounds manage the complicated world of personal finance in Mumbai. The study talks about the different approaches taken by these groups to meet their long-term financial objectives.

<u>2. Literature Review</u>

G Sivaramakrishnan, T Kumarasamy (2018): "Financial smartness and behaviour of working employees with respect to Coimbatore city." The mindsets of entrepreneurs and salaried employees are quite different. Salaried employees are knowledgeable and qualified. But entrepreneurs earn more money. As per this study, entrepreneurs give more importance to investments in business and other motives. On the other hand, salaried employees give significance to savings, and they save money in chit funds for the general purpose of house building/buying.

Parth Solanki, Pankaj Patil (2022): “A study on financial planning for salaried employee and strategies for tax savings.” This study aimed to find out tax saving strategies by salaried employees. According to the study's findings, salaried workers want to understand their tax obligations in the proper context and the financial planning tools at their disposal so they may maximise their profits by lowering the incidence of tax. As a result, Financial Planning is not at all difficult and can be carried out with some understanding and application.

C. Nandhini, Dr. S. Kothai (2019): “A study on financial planning and strategies for tax savings among corporation school teachers in Coimbatore city.” When creating programmes to encourage savings and investment, the government must consider the people's saving habits. The results of this study shows that while people are aware of the value of saving and financial planning, they are less aware of investing options.

Mr. Aftab Shaikh, Ms. Neena Katkar, Ms. Lipika Koli, Dr. Jayashree Bhakay (2022): The study makes an effort to comprehend the goals of retirement planning for working professionals in various age cohorts as well as their preferred investing strategies. Additionally, the study seeks to determine the relationship between retirement planning and the many elements influencing retirement planning.

Felix Awuku Afeti and Vishakha Kuwar (2022): “Study on Financial Planning for Salaried Employee and Strategies for Tax Savings in North Tongu District, Ghana.” This study aimed to examine the tax-saving tactics used by salaried workers and how they affect their financial planning and investing objectives for a comfortable retirement. Salary workers have spent their entire lives working, consuming the income, and maybe setting aside some money for the future.

Dinesh Bansilal Shendkar and Dr. Ashok Vasant Kulkarni (2016); “Study of financial planning for retirement amongst individuals in a select age group of 25 years to 45 years in Pune city.” Researcher has tried to achieve an in-depth understanding of various concepts related to retirement planning like financial planning process, evolution of financial planning, life of financial planning and financial life cycle based on financial objectives etc.

Colin Mason and Matthew stark (2004): "Study of What do investors look for in a Business Plan? A comparison of the investment criteria of Bankers, ventures Capitalist and Business angels." This article illustrates the many investment criteria used by bankers, venture capital fund managers, and business angels using a real-time methodology. Bankers place more emphasis on the proposal's financial features and place less emphasis on its market, entrepreneur, or other difficulties.

3. Research Methodology

3.1 Research Gap

This study focuses on businessmen and working professionals of different age groups, gender, income groups. We try to understand the difficulties and challenges faced by them. We also try to understand their investment patterns and tax planning strategies, their opinion towards investment, retirement planning. Financial literacy among businessmen and working professionals is also explored in this study.

3.2 Objectives

● To study and understand the investment planning of working professionals and businessmen.

● To understand the retirement planning of the working professionals and businessmen.

3.3 Significance of the Study

This study focuses on how salaried employees and businessmen invest and save their money and invest their money. As both groups have different goals and income, there is a huge gap between their investment patterns and tax saving patterns. Therefore, through this study we would be able to understand challenges faced by businessmen and salaried employees of different age groups and gender.

3.4 Hypothesis

Hypothesis 1

H0 (Null Hypothesis): There is no significant difference in investment planning between businessmen and working professionals in Mumbai.

H1 (Alternative Hypothesis): There is a significant difference in investment planning between businessmen and working professionals in Mumbai.

Hypothesis 2

H0 (Null Hypothesis): There are no significant difference in retirement planning of businessmen working professionals.

H1 (Alternative Hypothesis): There are significant difference in retirement planning of businessmen and working professionals.

3.5 Variables

Independent Variable: Occupation (Businessmen or Working Professionals)

Dependent Variable: Investment Planning, Retirement Planning

3.6 Sources of Data

Primary Data: The study is based on primary information that was gathered through a structured questionnaire that was created following a discussion with a small number of working individuals and business experts.

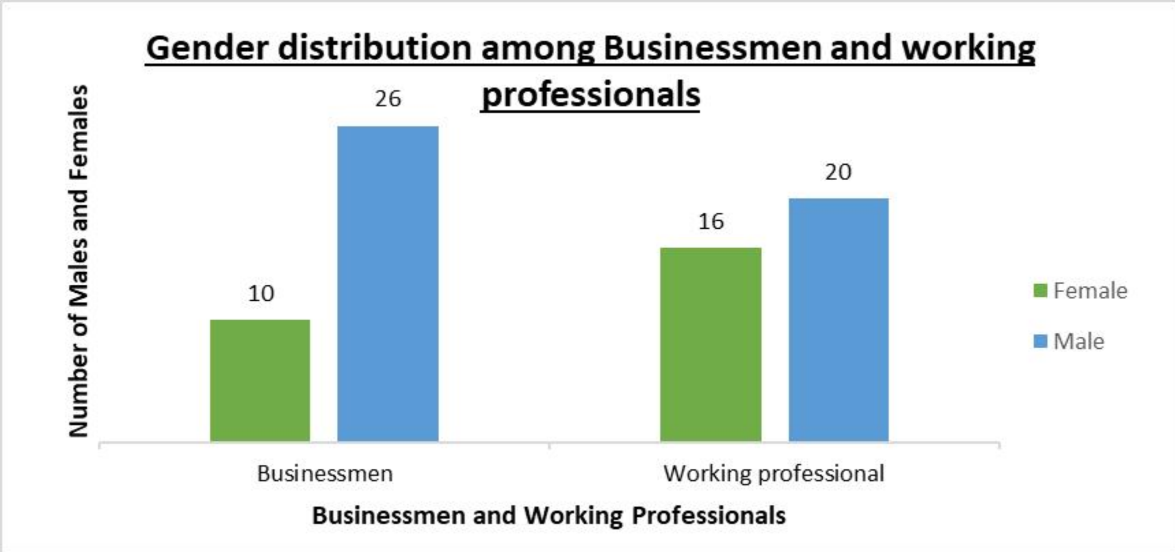
Secondary Data: Secondary data collected from websites, magazines, journals.

3.7 Sampling and collection of data

The researchers have circulated and collected a total of 72 responses. This is a descriptive study. The convenience sampling technique is used, which is a non-probability sampling technique. The study is only limited to the western region of Mumbai.

4. Data Analysis & Interpretation

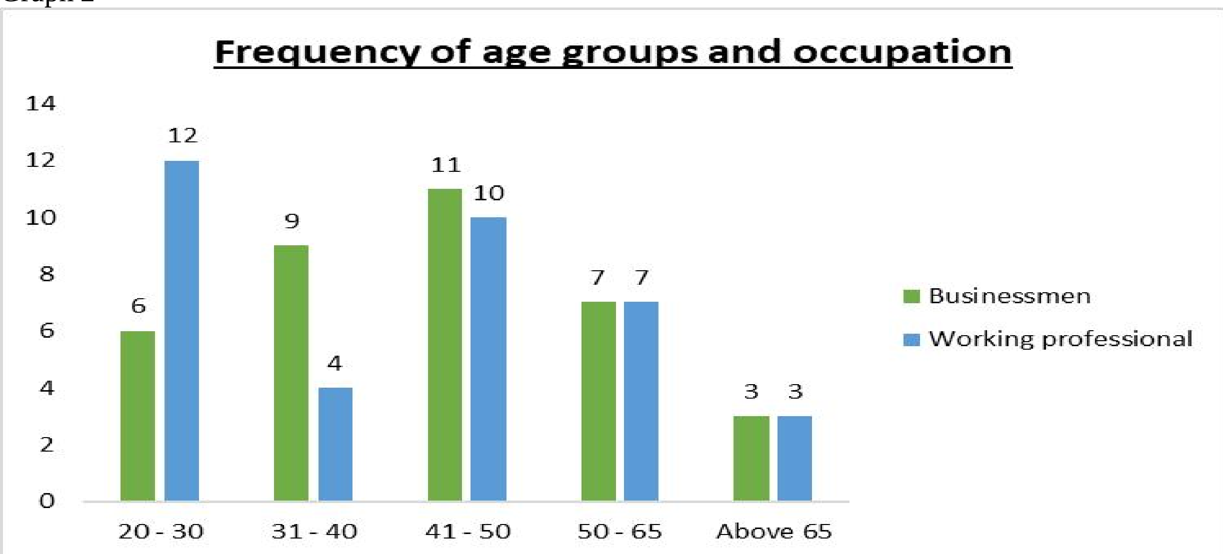
Graph 1



(Source: Primary Data)

Inference: Graph 1 indicates that women entrepreneurs are quite less compared to male entrepreneurs. Whereas women working professionals and men working professionals aren't equal. But women working professionals are more than women entrepreneurs.

Graph 2



(Source: Primary Data)

Inference: Entrepreneurs from the age range of 31-50 years are the highest. While young entrepreneurs and from the age above 50 years are the lowest. Working professionals who have responded to our questionnaire are mostly from the age group of 20-30 years and 41-50 years.

Graph 3

(Source: Primary Data)

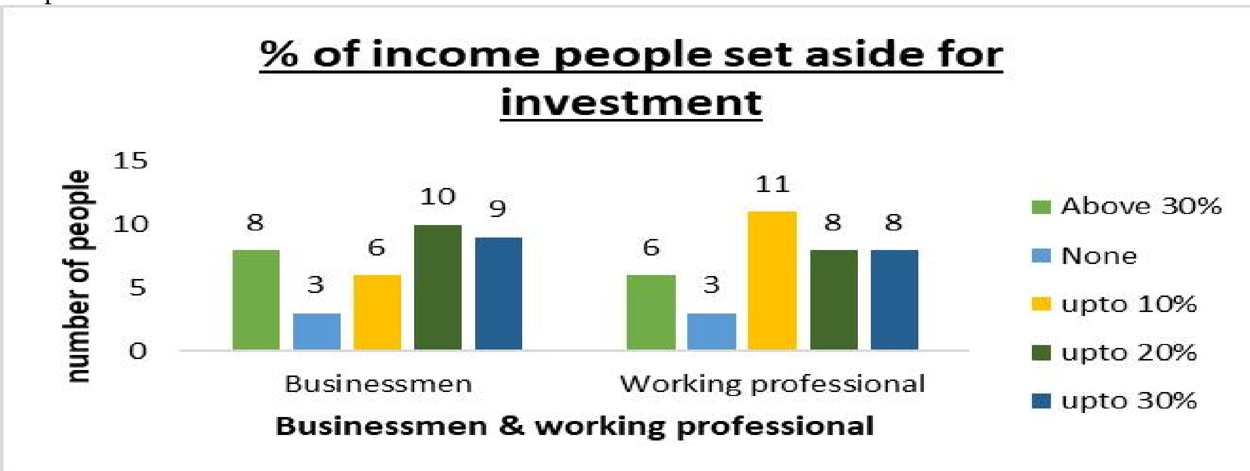
Inference: Most of the businessmen earn above Rs 12 lakhs. Most of the working professionals earn under the range of Rs 3 lakhs and up to Rs 6 lakhs.

Graph 4

(Source: Primary Data)

Inference: Most of the businessmen and working professionals set aside part of their income for savings. It can be interpreted that most businessmen and working professionals have built a saving habit, which is a good sign of financial planning.

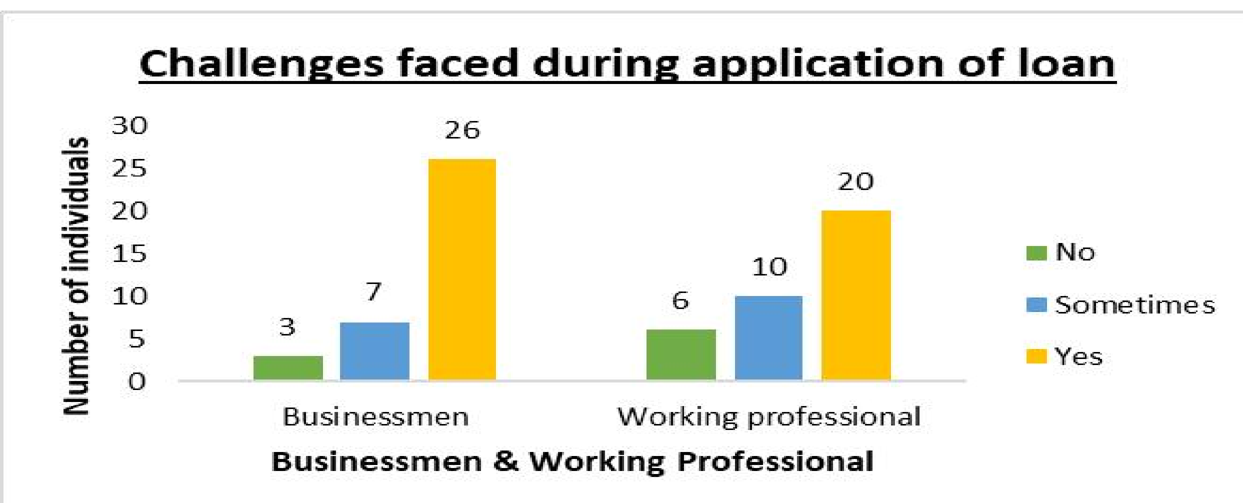
Graph 5



(Source: Primary Data)

Inference: Businessmen tend to save up to 20-30 % of their income, or above 30% of their income. Working professionals tend to save up to 10% of their income. Only a few working professionals save up to 20-30% or above 30%. It can be interpreted that the more people earn, the more they save, which explains why most businessmen save more than what working professionals save.

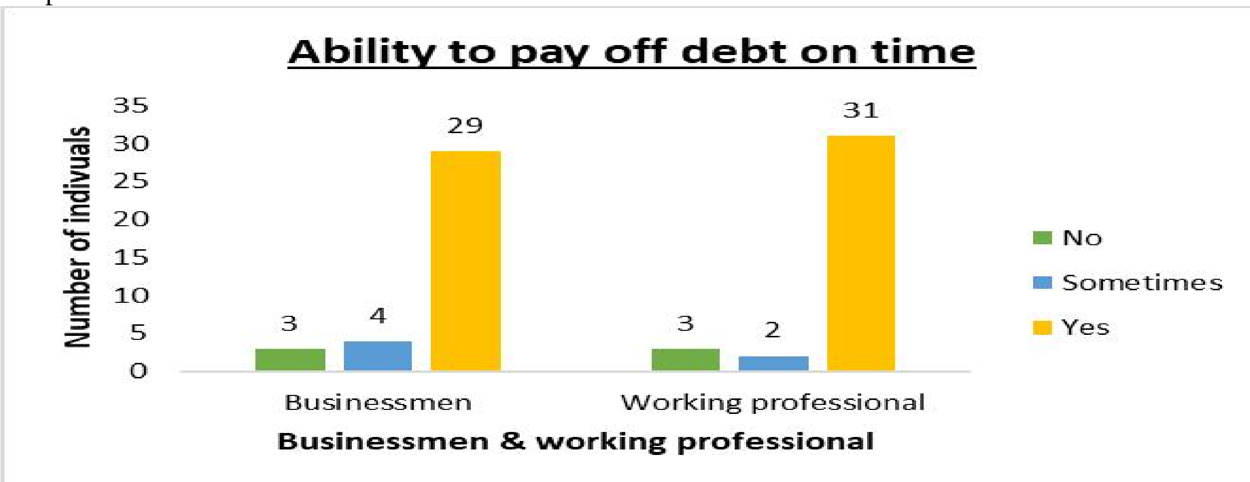
Graph 6



(Source: Primary Data)

Inference: Both businessmen and working professionals face challenges during loan application. Although, businessmen tend to face more challenges during loan application than working individuals according to the survey taken.

Graph 7



(Source: Primary Data)

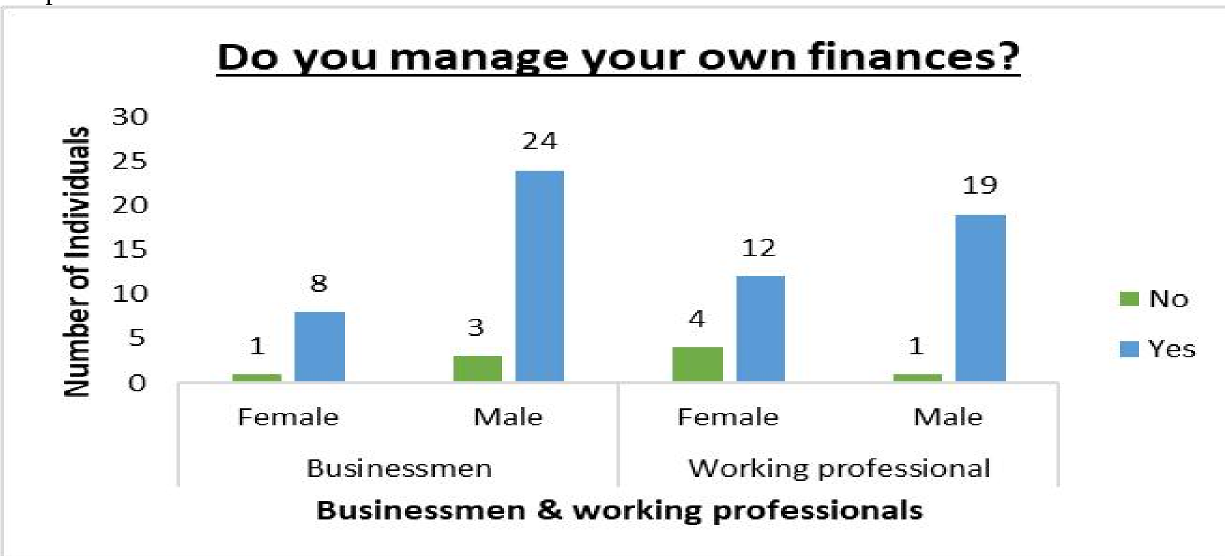
Inference: Both businessmen and working professionals can pay off debt in time. Only a fewof them seem to face challenges to pay off the debt.

Graph 8

(Source: Primary Data)

Inference: Most of the businessmen and working professionals have set financial goals for themselves. Only a few of the businessmen and working professionals have not set any financial goals for themselves.

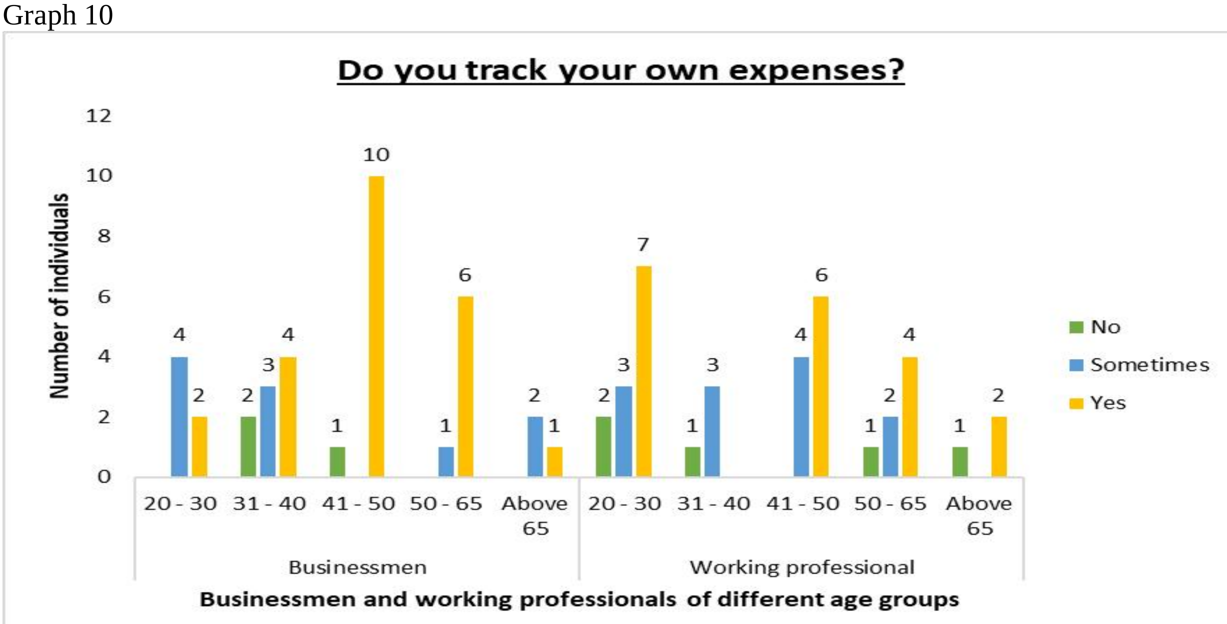
Graph 9



(Source: Primary Data)

Inference: Most of the female and male businessmen and working professionals manage their own finances.

Graph 10



(Source: Primary Data)

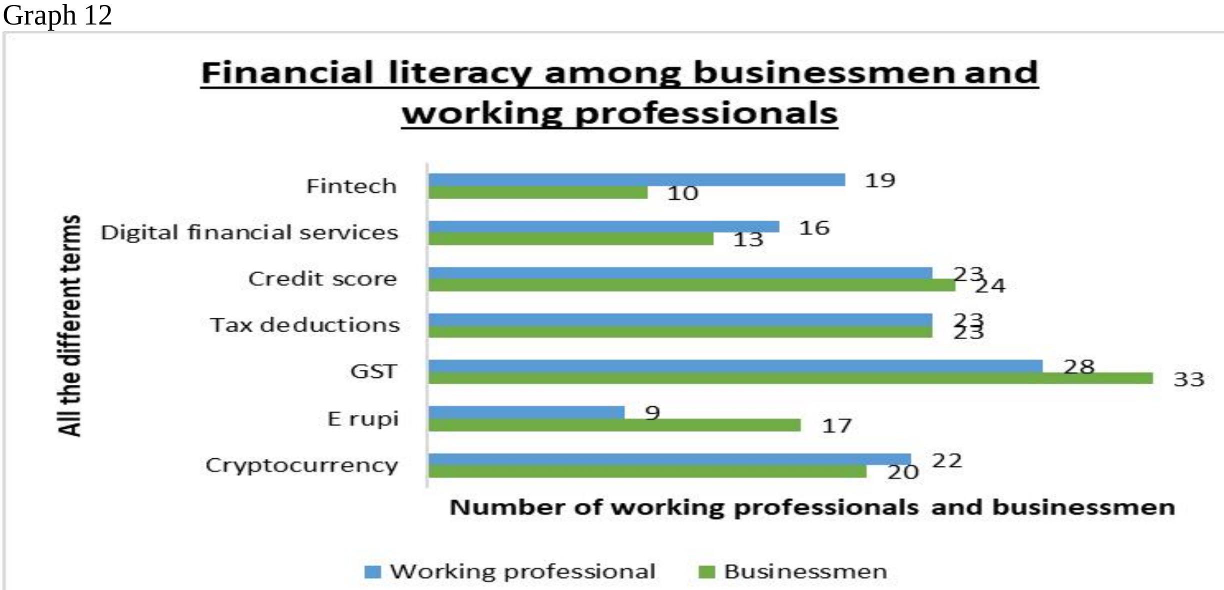
Inference: From Graph 10, it can be understood that all the age groups try to track their expenses regularly or sometimes.

Graph 11

(Source: Primary Data)

Inference: It can be understood by Graph 11 that businessmen and working professionals prefer taking advice from family, friends, and financial planners.

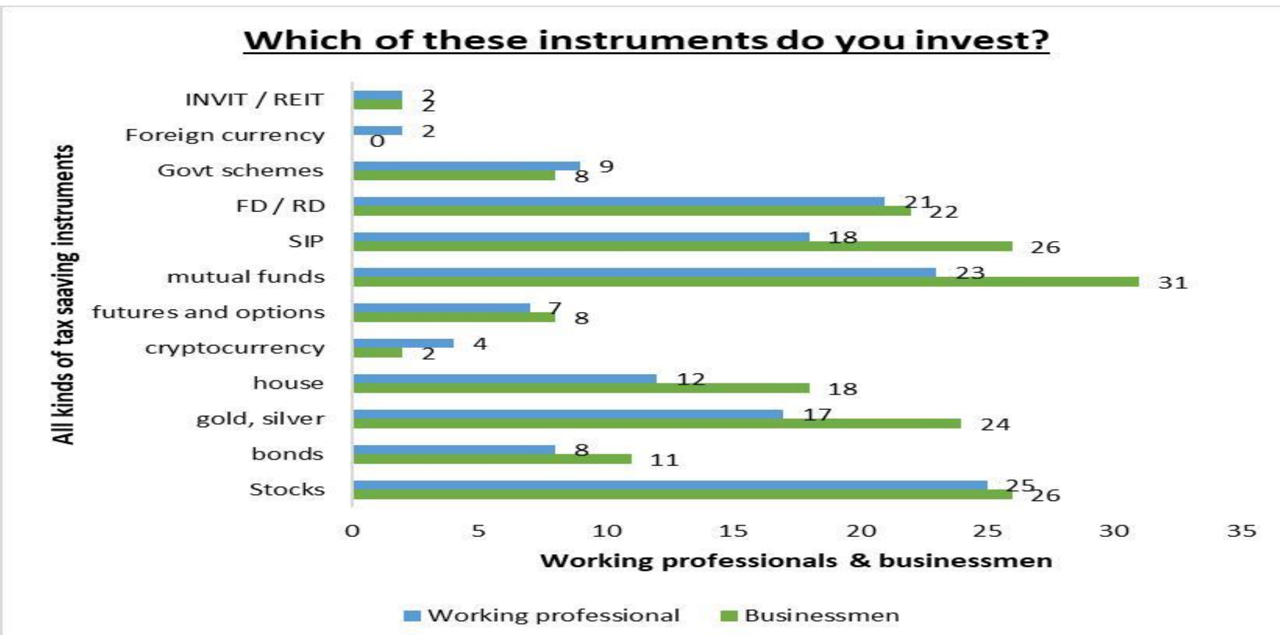
Graph 12



(Source: Primary Data)

Inference: From Graph 12, it can be interpreted that businessmen are aware of GST, since they might be claiming ITC (Input Tax Credit). Since, E-Rupi is a much newer concept, many working professionals are not aware of it. Overall, the financial literacy of the respondents is quite great and still can be improved. Working professionals have comparatively better awareness of fintech and digital financial services than the businessmen.Both working professionals and businessmen are aware of tax deductions and credit score,and cryptocurrency.

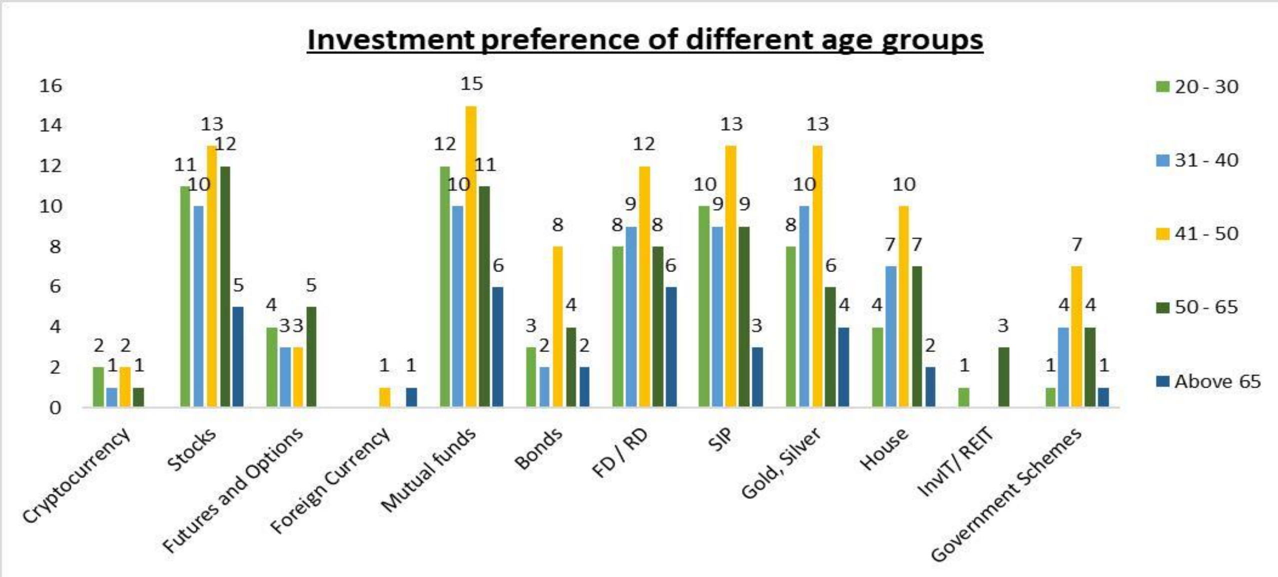
Graph 13



(Source: Primary Data)

Inference: Businessmen prefer investing in stocks, Mutual funds, SIP, FD, RD, gold, silver, house. While, working professionals prefer investing in SIP, stocks, FD, RD and Mutual funds.

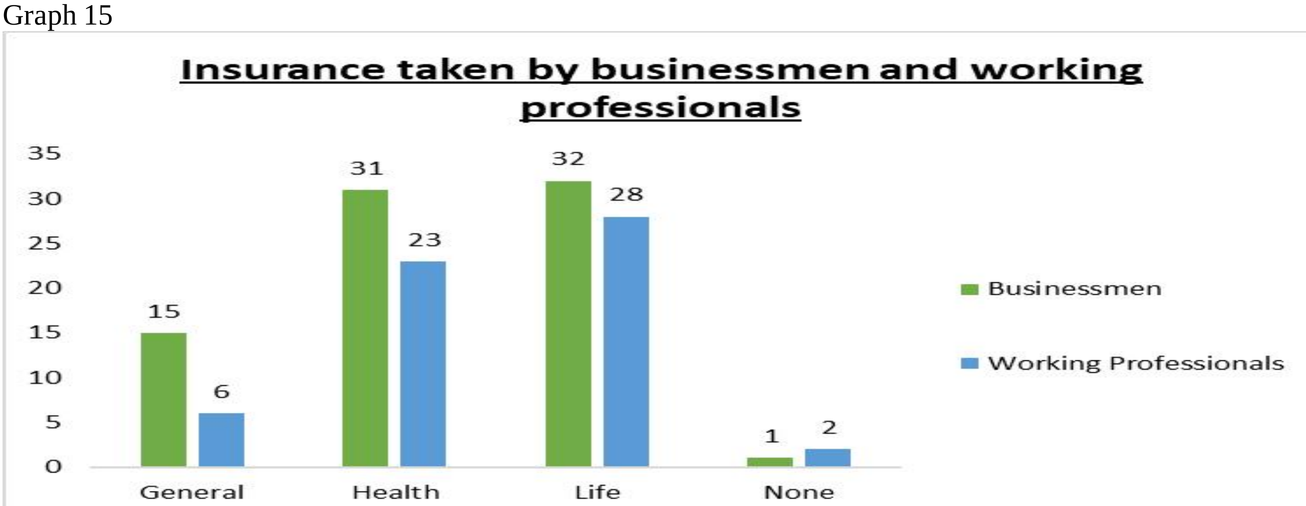
Graph 14



(Source: Primary Data)

Inference: Among all the age groups investing in stocks, mutual funds, FD, RD, SIP is common. Very few people are investing in crypto currency, trading forex, investing in government schemes, investing in InvIT, REIT, bonds and futures and options. All the senior citizens were comfortable investing in future options. Most of the individuals of the age group of 20-30 do not invest in gold, silver, and houses.

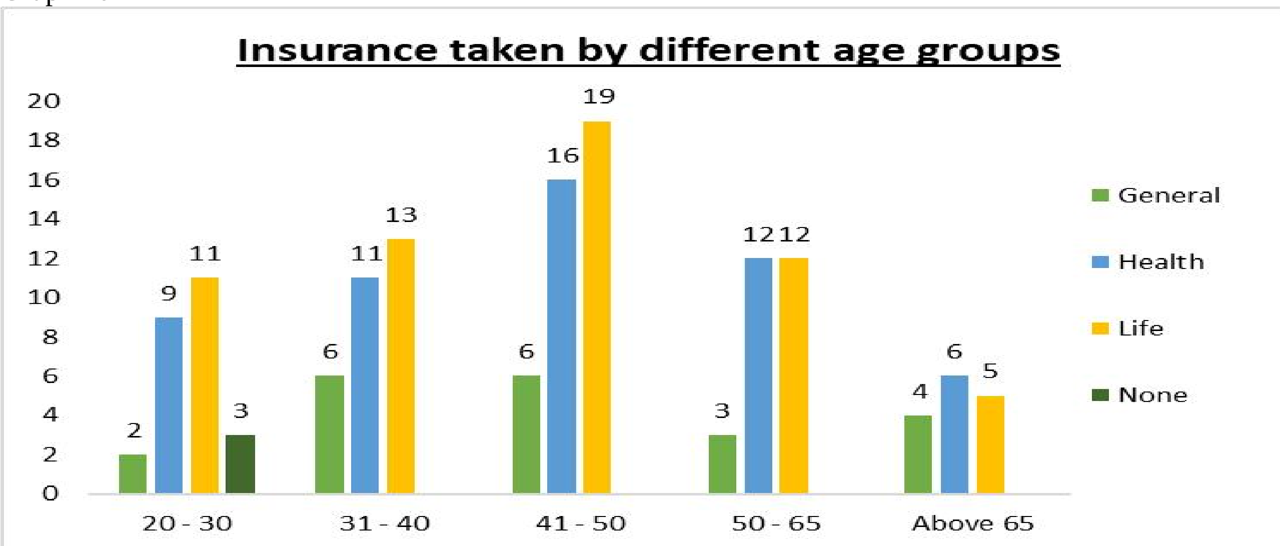
Graph 15



(Source: Primary Data)

Inference: Mostly both businessmen and working professionals have health and life insurance. Few have general insurance and only a minority of both the groups have no insurance.

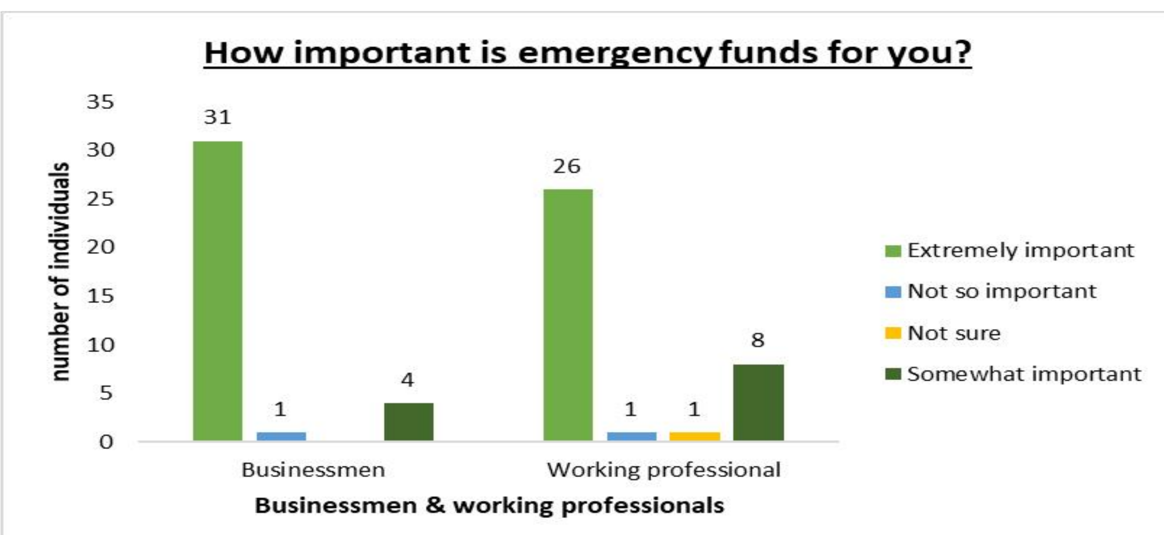
Graph 16



(Source: Primary Data)

Inference: Individuals from every age group have life insurance. Only the age group of 20-30 years have no insurance, which is quite likely as they are the ones who are just starting out their career. Health insurance is the second highest among all the groups. All the senior citizens have health insurance, as they are more prone to diseases. Only a few people from all the age groups have general insurance.

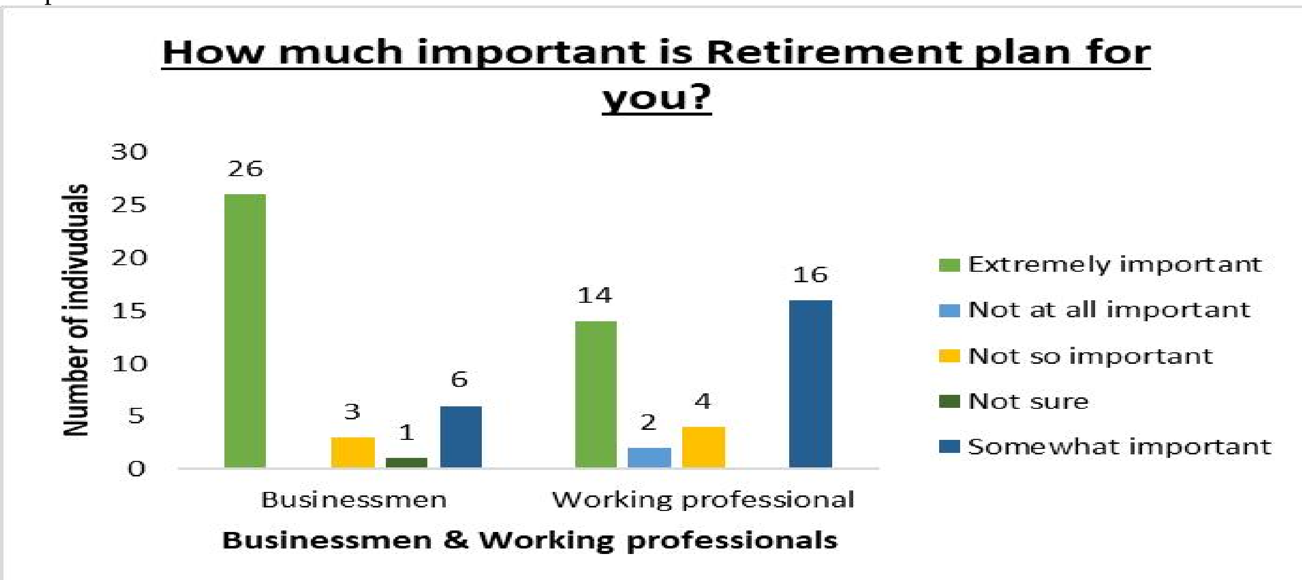
Graph 17



(Source: Primary Data)

Inference: Emergency funds are important for both businessmen and working professionals.

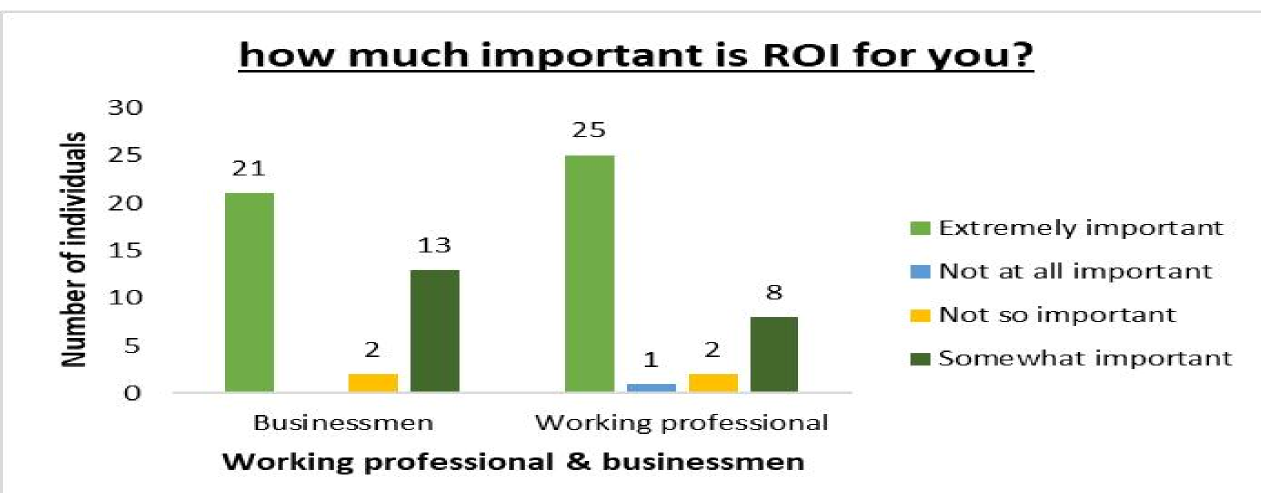
Graph 18



(Source: Primary Data)

Inference: More number of businessmen have replied that for them retirement plan is important compared to the number of working professionals.

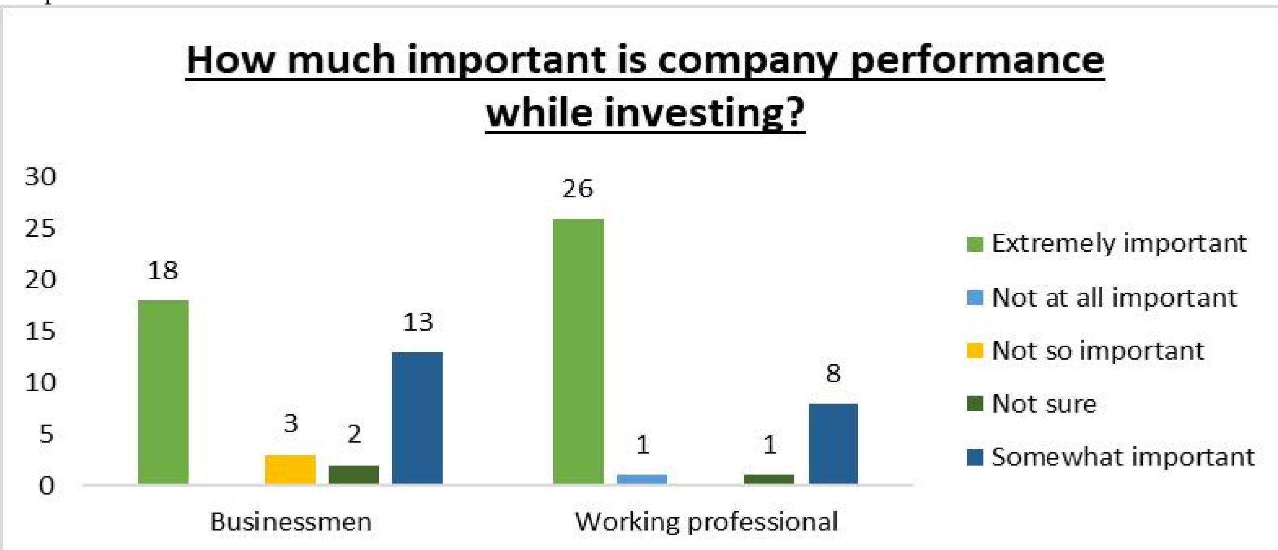
Graph 19



(Source: Primary Data)

Inference: Almost all employees and entrepreneurs replied that Return of investment isextremely or somewhat important.

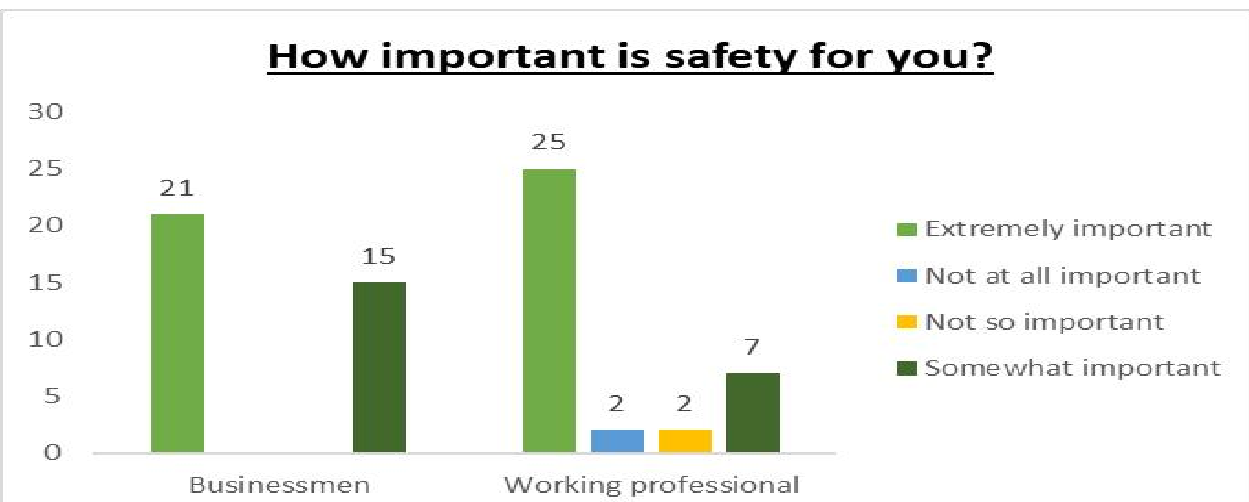
Graph 20



(Source: Primary Data)

Inference: Almost all employees and entrepreneurs replied that company performance beforeinvesting is extremely or somewhat important

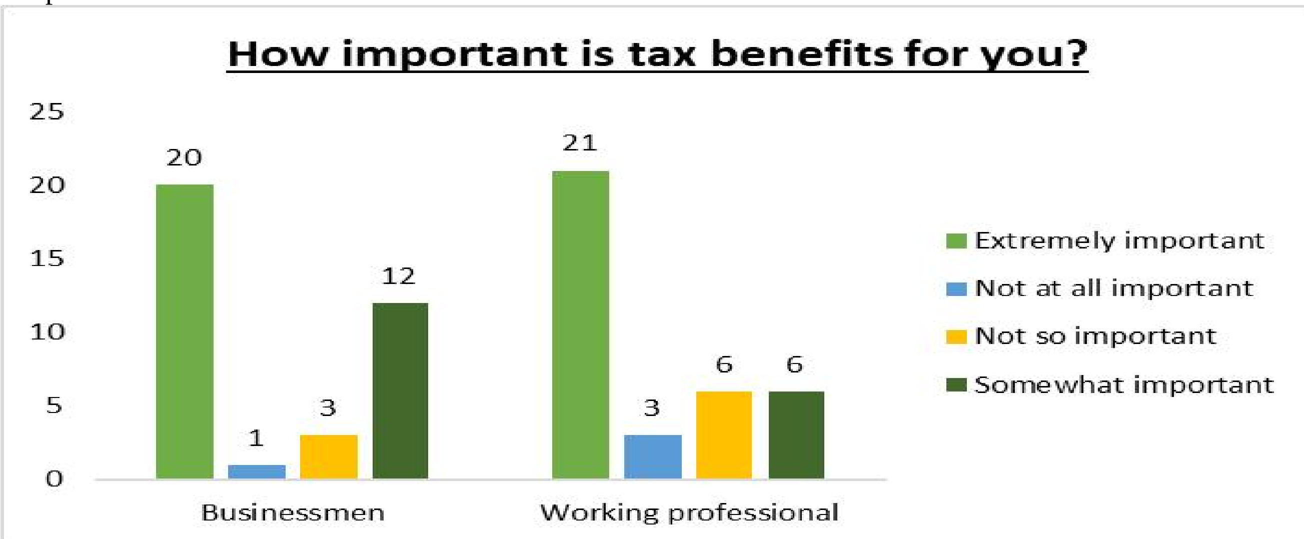
Graph 21



(Source: Primary Data)

Inference: Almost all employees and entrepreneurs answered that safety is extremely orsomewhat important.

Graph 22



(Source: Primary Data)

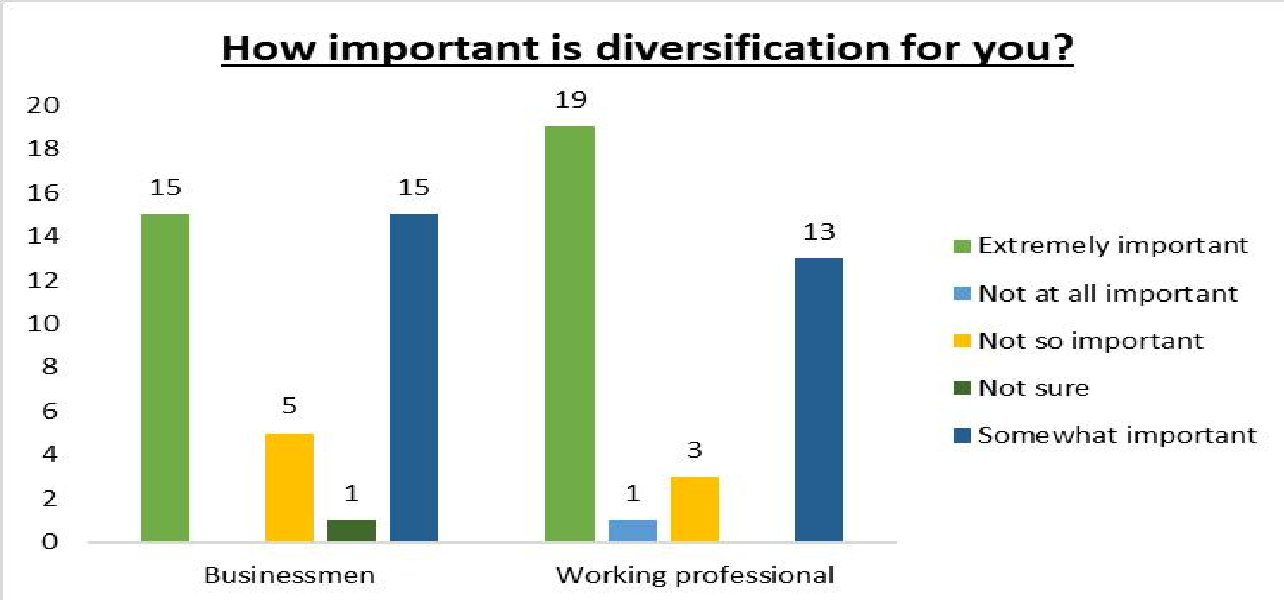
Inference: Almost all businessmen and working professionals feel that tax benefits are important for them. Some working professionals and businessmen seem to think that tax benefits are not so important or not at all important.

Graph 23

(Source: Primary Data)

Inference: Almost all businessmen and some working professionals say that expert advice is important for them.

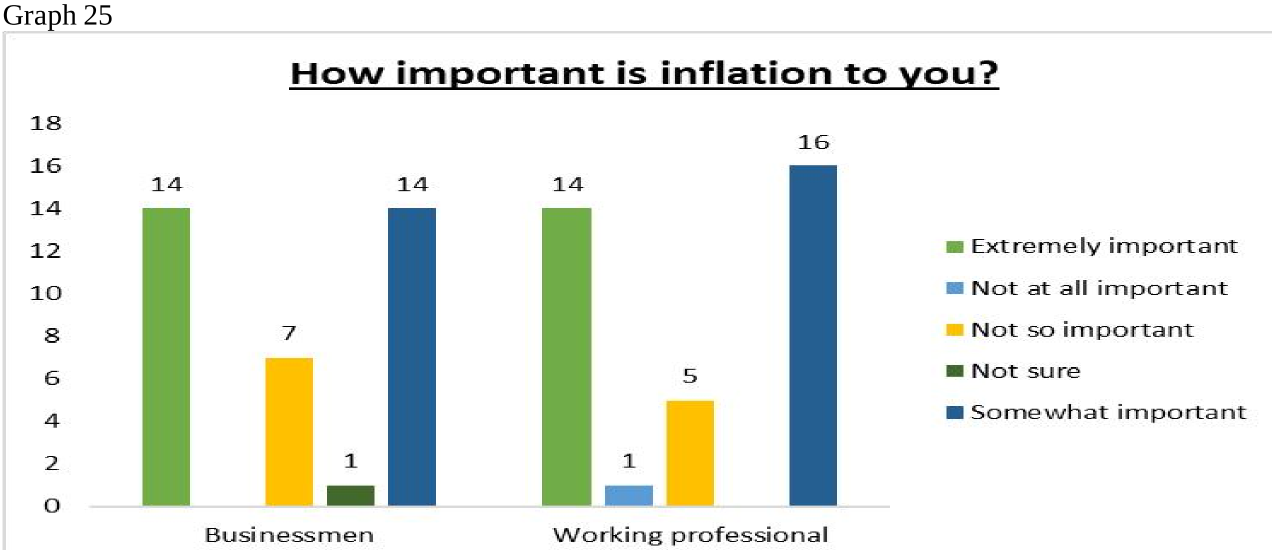
Graph 24



(Source: Primary Data)

Inference: Almost all businessmen and working professionals said that diversification is important for them.

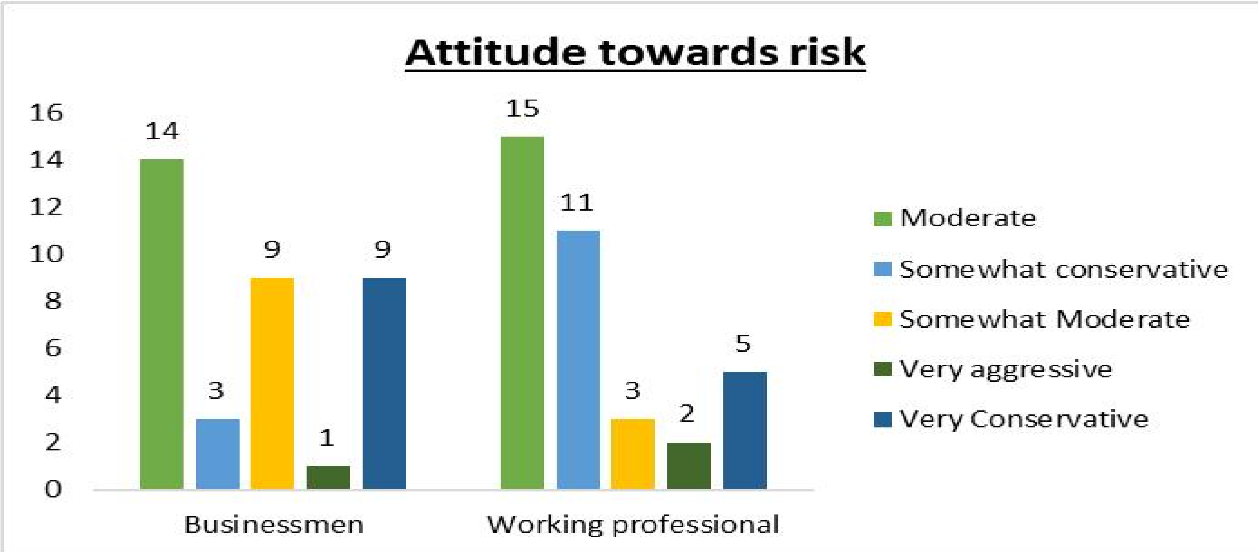
Graph 25



(Source: Primary Data)

Inference: Almost all businessmen and working professionals said that inflation is an important factor for them.

Graph 26



(Source: Primary Data)

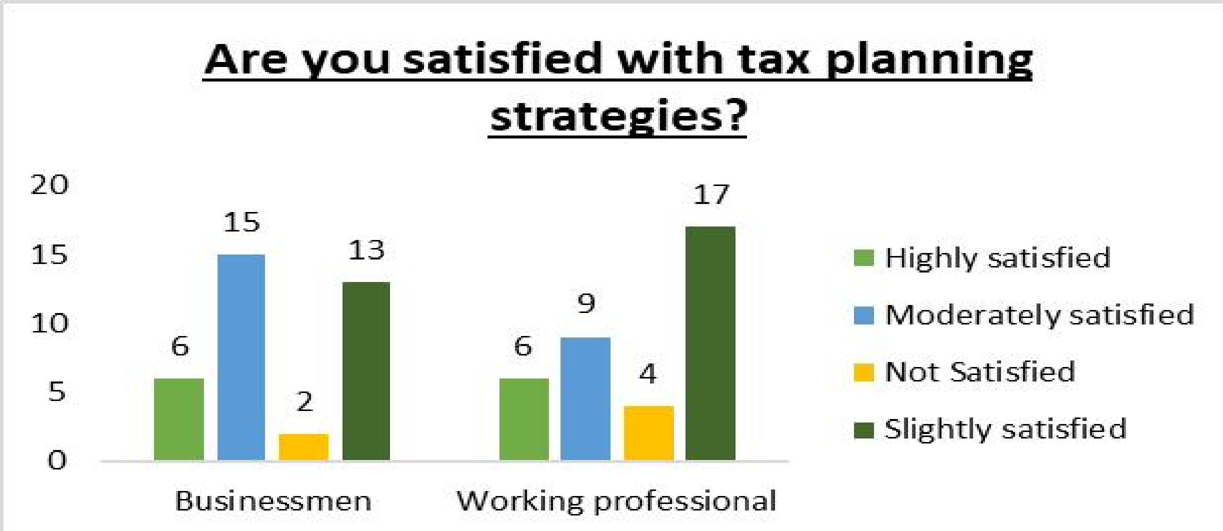
Inference: Working professionals are more conservative than businessmen, while businessmen take moderately more risk than the salaried employees.

Graph 27

(Source: Primary data)

Inference: From Graph 27, it can be understood that both businessmen & working professionals are satisfied equally. As the responses are almost the same.

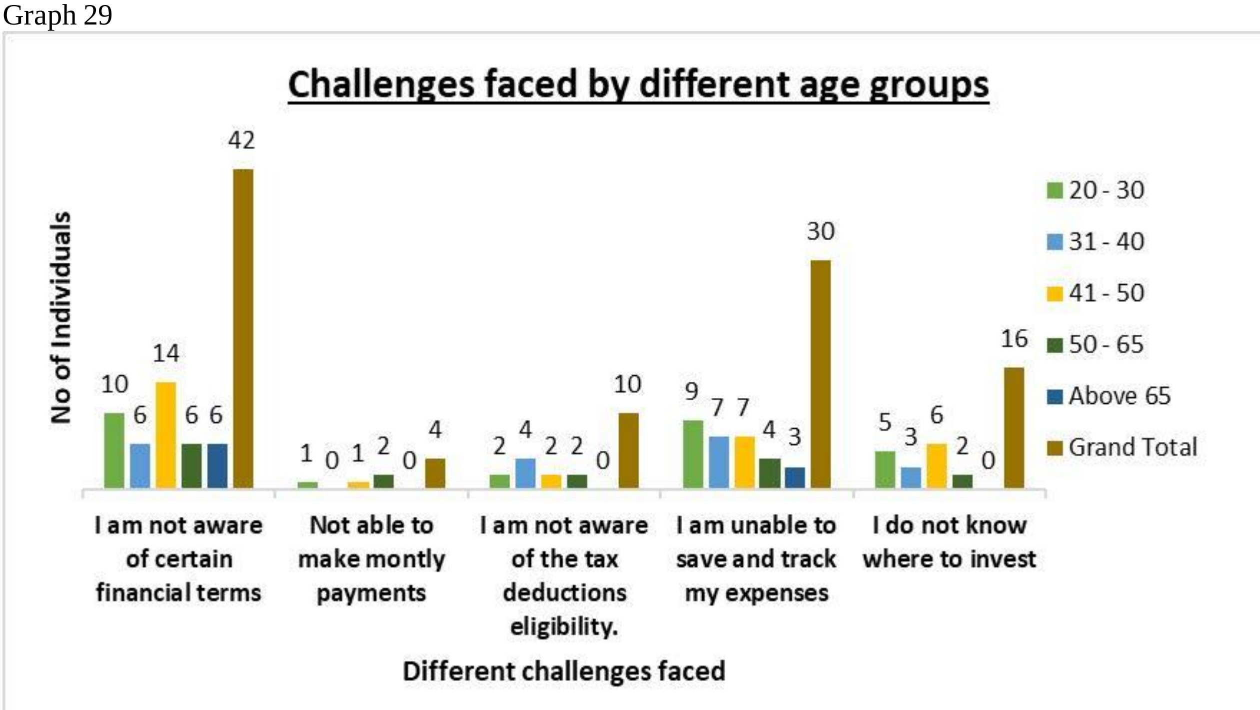
Graph 28



(Source: Primary data)

Inference: Most of the individuals are slightly satisfied. Some of the businessmen are moderately satisfied. While some individuals are slightly satisfied.

Graph 29



(Source: Primary Data)

Inference: Most of the individuals are not aware of certain financial jargons and some are not able to track their expenses. From Graph 29, it can be observed that the age group 20-30 face a lot of challenges as compared to other groups. Age group of 41-50 face issues in understanding financial terms.

4.1 Hypothesis Testing

z-Test: Two Sample for Means

	Occupation	*Investment planning*
Mean	1.53030303	2.5
Known Variance	0.25	0.5
Observations	66	66
Hypothesized Mean Difference	0	
z	-9.096563898	
P(Z<=z) one-tail	0	
z Critical one-tail	1.644853627	
P(Z<=z) two-tail	0	
z Critical two-tail	1.959963985	

For the above Null Hypothesis, Z test was applied. The calculated Z value is -9.096563898. P(Z≤z) for a two-tailed test is 0, indicating that the observed mean difference is highly statistically significant. At a 5% significance level, we have enough evidence to reject the null hypothesis. This means that there is a statistically significant difference in investment planning means between the two occupations.

z-Test: Two Sample for Means

	Occupation	*Retirement plan*
Mean	1.53030303	1.954545455
Known Variance	0.25	0.84
Observations	66	66
Hypothesized Mean Difference	0	
z	-3.301207435	
P(Z<=z) one-tail	0.000481348	
z Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.000962697	
z Critical two-tail	1.959963985	

For the above Null Hypothesis, Z test was applied. The calculated Z value is -3.301207435. P(Z≤z) for a two-tailed test is 0.000962697, indicating that the observed mean difference is highly statistically significant. At a 5% significance level, we have enough evidence to reject the null hypothesis. This means that there is a statistically significant difference in investment planning means between the two occupations.

5. Conclusion

Businessmen and salaried employees have very different mindsets. Therefore, their investment and retirement strategies differ. Financial institutions, stock exchanges, and regulatory organizations have a significant opportunity to educate the public by providing financial planning education to every individual. Many age groups are not aware of certain financial terms, tax deductions, and government schemes that help reduce tax burden. Financial literacy is a dire need, it will help many individuals to save money. Also, many of them are facing challenges in keeping track of their expenses. Businessmen seem to have comparatively more knowledge when it comes to saving money and where to invest than working professionals. It is also understood that businessmen take comparatively more risk than salaried employees and are also able to save more percentage of money from their income. Salaried employees tend to spend first and then save and invest. So, in conclusion, businessmen and working professionals' behaviour, mindset, goals towards saving, investment, retirement planning differs to a certain extent

5.1 Limitation of the Study

● This study is mainly based on primary data collected from businessmen and working professionals in the region of Mumbai, and therefore, the conclusions drawn upon may not be applicable to other regions.

● The research is completely based on the responses of the individuals who have filled the form.

● Primarily only working adults and businessmen were included in the study's target group; additional studies are required for students, women, and retirees.

5.2 Findings

● Most of the respondents are aware of investment in Fintech, Digital Financial Services, Crypto currency, E-Rupee, GST, Tax deductions like S. 80 G, S. 80 C, Credit score. People are aware of the effects of inflation, and the importance of Return of investment.

● Most of the working professionals fall into the income range of Rs. 3,00,000 to Rs. 9,00,000. While most of the businessmen fall into the range of Rs 12 lakh and above.

● The age group of 20-30 face a lot of problems than the other age groups, since most of them aren’t aware of financial terms, and do not know where to invest. Since this age group is just starting to invest, it might be confusing for them, as there are many terms, and options for investment. The financial literacy among this age is comparatively less than the other groups.

5.3 Suggestions

● Allocate part of the income for savings and investments before one start spending it.

This would help one to avoid spending where it's unnecessary. The 50- 30-20 rule can be applied.

The rule divides a person's monthly net income into three categories: necessities, wants, and savings, with 50% going towards requirements, 30% going towards wants, and the remaining 20% on savings. This rule can help individuals save money and stop overspending on things that are unnecessary.

● To lower risk, investments can be diversified. But this depends on person to person and their individual market knowledge and goals, as too much diversification is also not good.

● Financial literacy should be taught in schools. Tax saving schemes and tax deductions Awareness should be made by the government. Financial advisors should help people understand various deductions and how they can save their money. They should help them understand what the various investment options are, as some people do not seem to be aware of where they should be investing.

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2. To study the factors that contribute to customers switching electronic brands in mumbai

Ms. Kinjal More - Athava Institute of Management Studies, Mumbai, India

Abstract

This study sheds light on the interplay between customer perception, brand quality and outside influence summarizing the elements influencing brand switching behavior. It means having marketing strategies, providing great product quality and presenting the best customer service which will increase the brand loyalty and lower the consumer churn rate. The phenomenon of brand switching in which customer migrate from one brand to another within a product category has grown to be major worries for marketers and companies. It is significant to understand that consumer behavior is fundamental. The purpose of this study is to highlight and evaluate the key elements influencing consumer decision to switch brands. Keywords: Product, price, satisfaction, marketing, brand switching.

1. Introduction

Customer retention has evolved into a top priority for businesses in a variety of industries in today's fiercely competitive business environment. Because consumers have so many options, brand loyalty is no longer a guarantee, and consumers frequently show an inclination to switch brands. For marketers and organizations alike, deciphering the fundamental causes of this brand switching behavior has become a vital problem. Companies looking to improve customer retention and gain a competitive edge can benefit from understanding the key elements that influence customers to switch brands.

The process through which customers renounce their loyalty to a certain brand in favor of a competitive alternative within the same product or service category is referred to as brand switching, also known as customer disengagement or churn. It is a diverse and dynamic field of study since this pattern of behavior is influenced by an extensive combination of individual, social, economic, and environmental factors.

Consumers may transfer brands for a variety of reasons, but research and empirical data have revealed a number of typical causes. Product dissatisfaction, price sensitivity, changing requirements and choices, perceived worth, the reputation of the brand, customer service experiences, and external influences like advertising and word-of-mouth recommendations are major reasons why consumers frequently switch brands.

Research in this area combines quantitative approaches to develop a thorough understanding of the most important elements influencing brand switching. The goal of this study project is to sort through the complex web of variables affecting brand-switching behavior. Businesses can improve their capacity to respond to consumer requests, provide excellent customer experiences, and create marketing activities that resonate with their target audience by looking into these variables. As a result, companies can develop long-lasting relationships with clients, encourage brand loyalty, and establish themselves as market leaders in a constantly changing competitive environment.

2. Literature Review

Bettman et al., (2000) according to behavioral decision theory, preferences are at least partially created in response to the options that are available. Most of the time, when presented with several possibilities, buyers lack a defined set of preferences that would allow them to choose a product. When people begin to digest information about specific possibilities, these are starting to be built. As a result, customers are faced with a great deal of confusion about which choice best suits their future preferences at the decision-making stage

Czinkota et al., (2001) says that understanding and meeting consumer demands and values is at the heart of contemporary marketing activity. Businesses today must put a strong emphasis on their consumers and devote the majority of their resources to marketing initiatives in order to be successful. One of the key elements in measuring the value a client gives to the business is maintaining a long-term relationship with them. A long-term connection is seriously threatened by the customer's tendency to swap vendors.

Assael (2002) stated that customer brand change is a complicated phenomenon that is affected by competition, time, and behavior. The current study aims to investigate the causal relationships between dissatisfaction, product category characteristics, perceived price, competitors' marketing campaigns, and customers' switching from Samsung smartphones to other brands, both directly and indirectly through customers' desire for variety as a moderator variable

Ahmed et al., (2015) according to him consumer switching behavior is regarded as a complicated analysis of the variables influencing consumers' propensity to switch brands when making purchasing. The choice of consumers to switch brands from the ones they now use is known as brand switching. This could be a response to consumer unhappiness with their current brand, the allure of recently introduced brands, or their need for variety. As a result, brand flipping may be prompted by promotional activities created by rival companies. The influencing factors listed below can be used to understand the cause-and-effect connections between various variables and how they affect changing consumer behavior.

Alisa Tri Nawarini(2018) stated that marketing managers should be able to prioritize marketing strategy to fulfill the customer requirement for variety seeking in order to reduce their customers' brand switching behavior. Making use of a variety of technology advancements is one strategy to adapt smartphone products to changing consumer needs, wants, and preferences while also improving their quality and use. Because switching brands can be positively influenced by perceived pricing from one brand to another, the price policy offerings must be prioritized by the company's marketing manager. The methods include setting prices that are less expensive than those of competitors' electronic devices while maintaining the quality and benefits, determining the price level that are competitive and in line with the financial capabilities of the consumer targeted, and other methods as well.

3. Research Methodology

3.1 Research Gap

The world has changed since the electronic sector began to grow. The tendency of consumers to switch brands has increased recently. In the electronic industry, there were a variety of variables that were both in favor of and against brand switching. The pricing of your product doesn't reflect its worth, your quality of customer service is poor or nonexistent, your customers are experiencing brand weariness, or there may be other reasons why consumers switch brands.

3.2 Objectives

1) To study how often customer switch brands if a more affordable option for a product or service is available.
2) To know if the product or service a customer usually buys exceeds a certain price point, it may also lead to a brand switch.
3) To understand when consumer switch the brand when they seek items that have similar value or when they see any difference.

3.3 Data collection

Primary Data - The study is based on primary data that was collected using a structured questionnaire that was developed after consultation with a small group of employed people and business professionals. The primary data for the study were collected using a convenience sample method. The respondents were given explanations of the questions, and the data was collected objectively.

Secondary Data – Secondary Data is obtained from websites, magazines and journals. The secondary data was acquired from publicly accessible sources, including books, journals, websites run by the government, official Twitter accounts, and other blogs.

3.4 Hypothesis

H0 (Null Hypothesis): Customer satisfaction is not associated with customer switching behavior.

H1 (Alternative Hypothesis): Customer satisfaction is significantly associated with customer switching behavior.

3.5 Variables

Independent Variable: Customer satisfaction

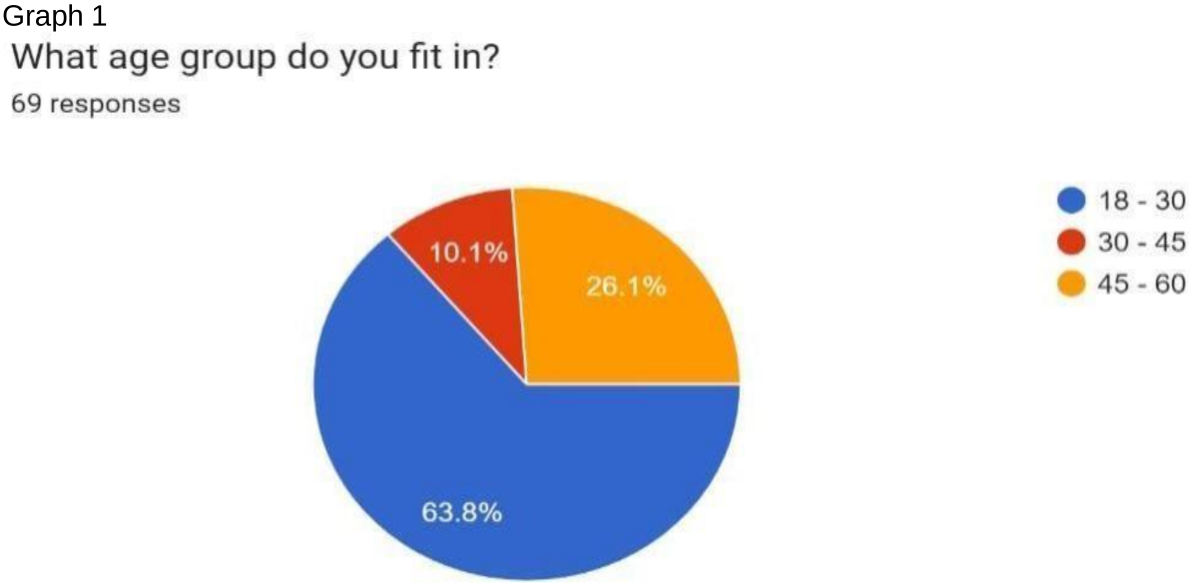
Dependent Variable: Brand switching

3.6 Sampling

The researchers have circulated and collected in total 69 responses, out of which responses are received from 18-30 which are young buyers, followed by 26.1% in the age group of 45-60 years and 10.1% in the age group of 30-34 years. For this study we have used convenience sampling, as this study is only limited to Mumbai.

4. Data Analysis and Interpretation

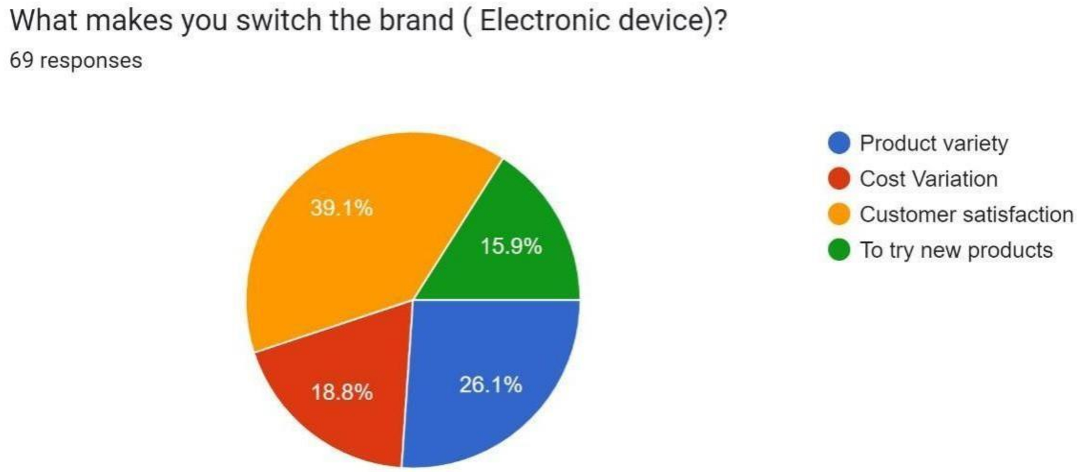
Graph 1



(Source: Primary data)

Inference: The study consisted of age group 18-60. The majority of the responses were gathered from age group 18-30 which are young buyers, followed by 26.1% in the age group of 45-60 years and 10.1% in the age group of 30-34 years.

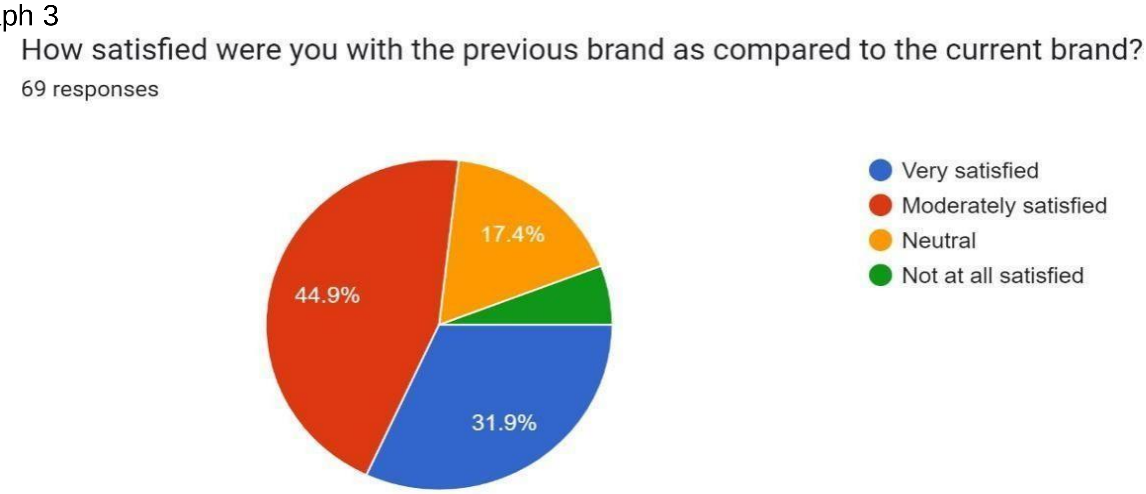
Graph 2



(Source: Primary data)

Inference: According to the study, the major factor which contributes to customer switching brand is customer satisfaction. It is then followed by product variety. Comparatively the factors like cost variation and the willingness to try a new product has less effect on a customer switching a brand.

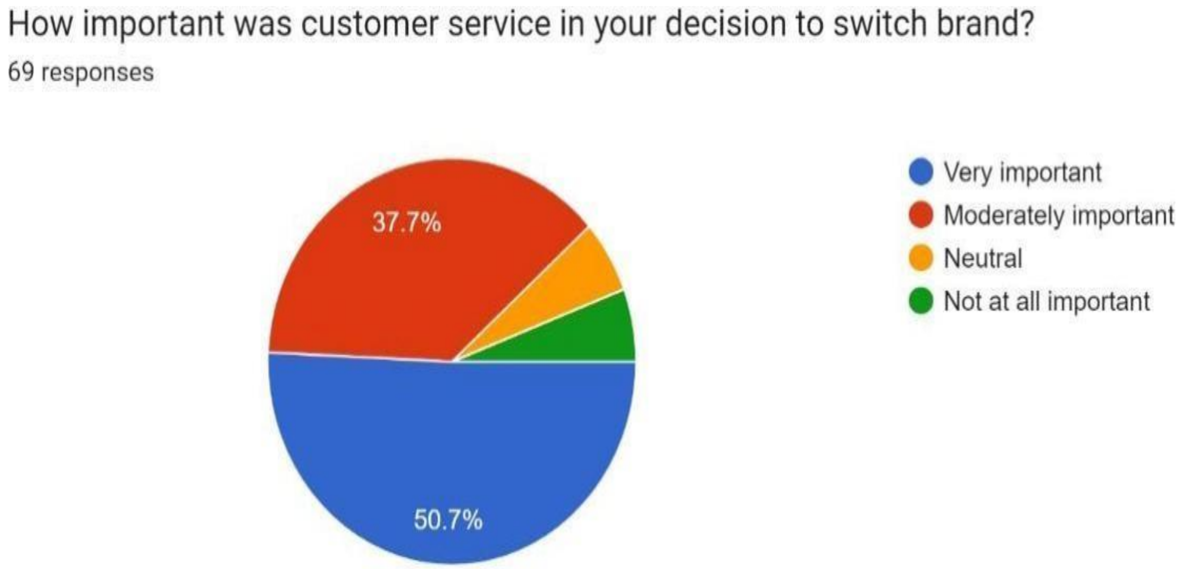
Graph 3



(Source: Primary data)

Inference: The majority of the people were moderately satisfied with their previous brand with respect to the current brand and hence it proves that customer satisfaction plays an important role. Whereas 31.9% of respondents were satisfied and 17.4% of respondents were not surewhether they were happy or not or satisfied or not as they were neutral.

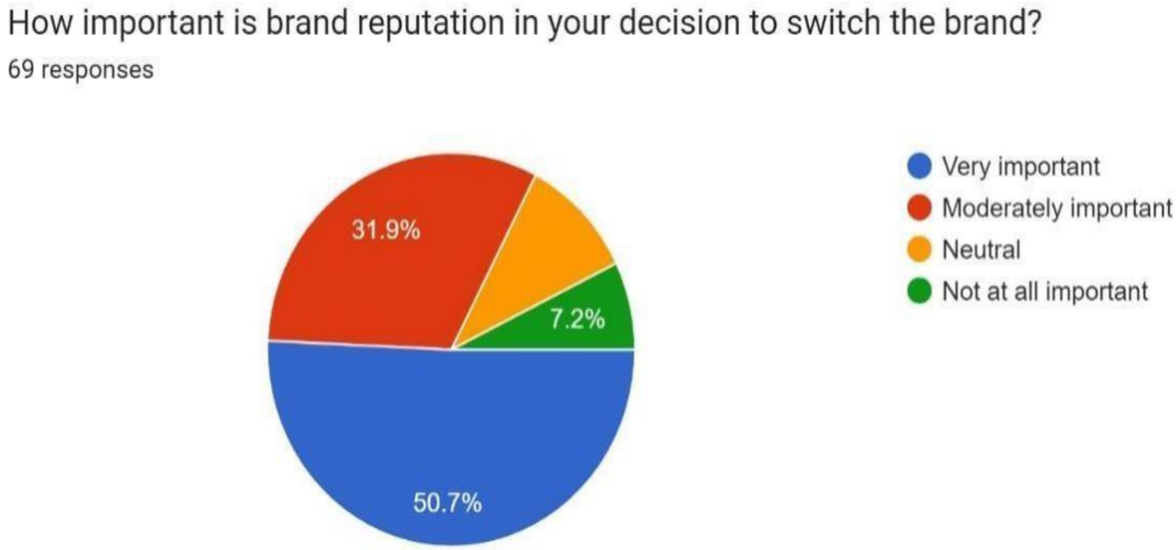
Graph 4



(Source: Primary data)

Inference: Customer service played an important role in the decision to switch brand as from theabove chart almost half of the respondents find it important.50.7% of respondents says that customer service is very important in their decision to switching brand. This shows that customer satisfaction is very important, if the brand is able to fulfill the customer demands it led to customer satisfaction.

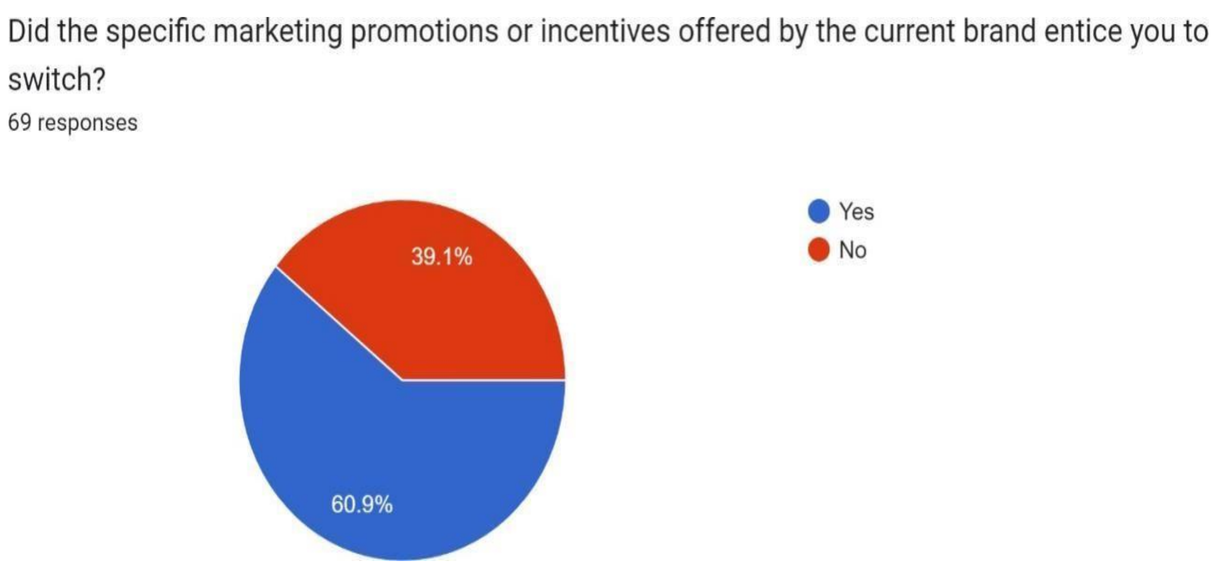
Graph 5



(Source: Primary data)

Inference : From the above chart, the reputation of the brand matters to the majority of the respondents in their decision to switch the brand. 50.7% of respondents feel that brand reputationplays in vital role in customer satisfaction where as 31.9% of respondents found that it is moderately important in there decision making.

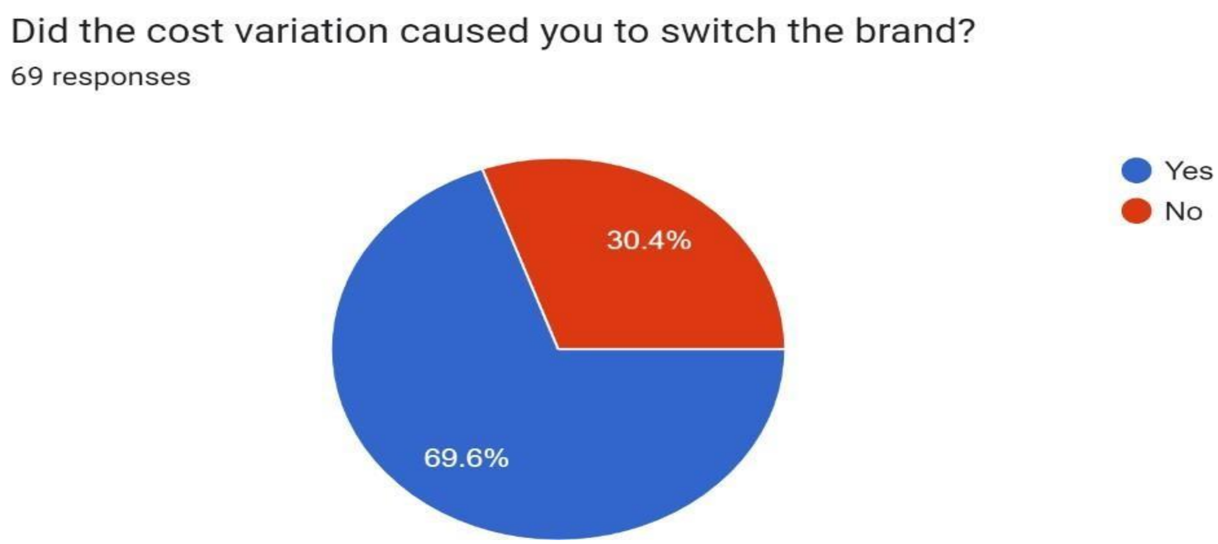
Graph 6



(Source: Primary data)

Inference: The majority of the respondents were attracted towards the marketing promotions which contributed to their decision to switch the brand. In India, consumer gets easily attracted towards the promotion and other marketing tactics so it is very important for consumer to get good promotions and they definitely switch the brand and tries the new product which is pocketfriendly to them.

Graph 7



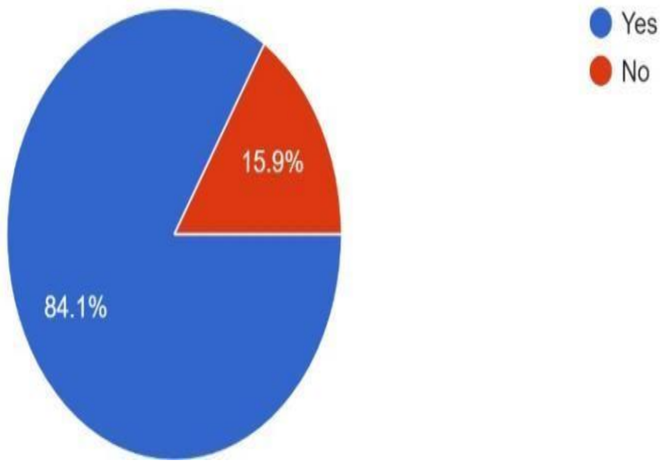
(Source: Primary data)

Inference: Most of the respondents preferred to switch the brand on the basis of cost variation. Yes 69.6% of consumers found that cost variation plays a vital role in switching brand. In India, the consumer is Price centric. So it’s very important or brands to keep the cost of product as per target audience and try to attract consumers through various discounts or other pricing strategy.

Graph 8

Did the current brand offer better accessibility or convenience compared to the previous brand?

69 responses



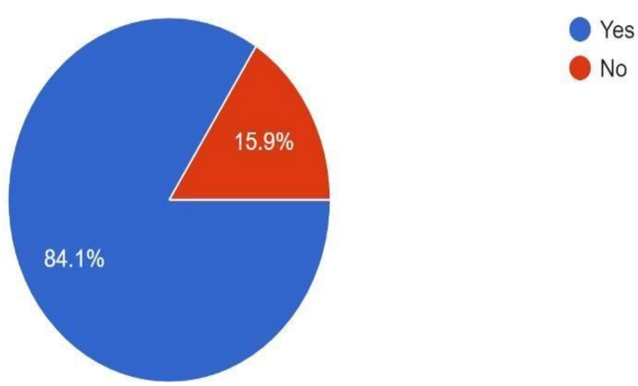
(Source: Primary data)

Inference: The majority of the respondents found better accessibility or convenience with respect to the current brand which enticed their decision to switch the brand. 84.1% of respondents feel that they found better accessibility or convenience with respect to the current brand which enticed their decision to switch the brand as compared to other.

Graph 9

Did you perceive any difference in the product quality between the previous brand and the current brand?

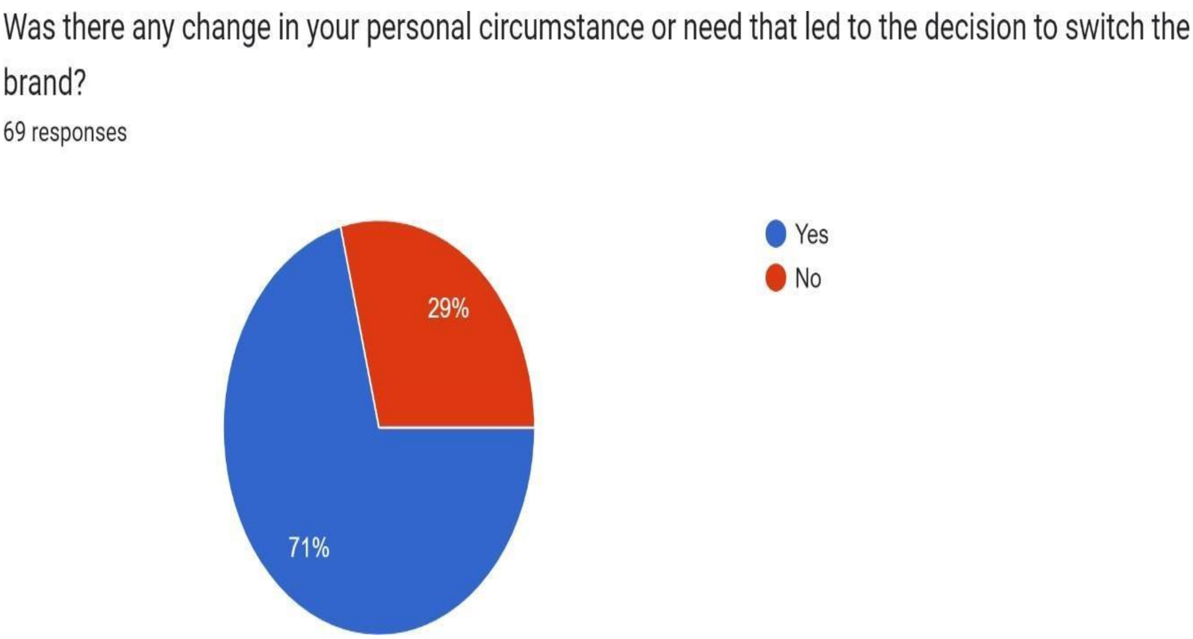
69 responses



(Source: Primary data)

Inference: There was a change in the product quality as compared to it’s previous quality which led to a decision to switch for the majority of the people. 84.1% of respondents found that if there is better quality of product available in market as compared to current brand they are using

Graph 10



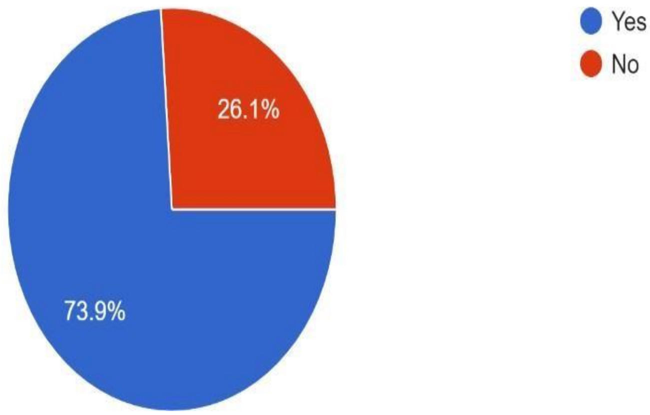
(Source: Primary data)

Inference: Change in personal circumstance led to the decision to change the brand for the majority of the respondents highlighting the fact that change according to the needs is necessary.

Graph 11

Did you encounter any issues or problems with the previous brand that led to your decision to switch?

69 responses



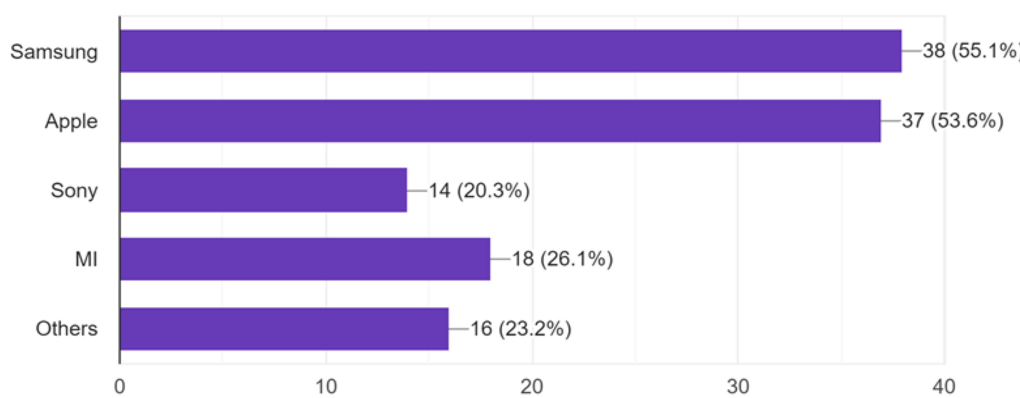
(Source: Primary data)

Inference: Most of the people encountered with a problem with respect to the previous brand and hence it was not able to fulfill the demand of the customer which led to the customer switching brand.

Graph 12

Which brand would you prefer?

69 responses



(Source: Primary data)

Inference: According to the table, majority of the respondent prefer electronic devices of the brand Samsung which is immediately followed by Apple. Other companies like Sony, MI, andothers are not comparatively preferred by the customers.

4.1 Hypothesis Testing

Contingency Tables

Contingency Tables

	Did you perceive any difference in the product quality between the previous brand and the current brand?		
Did you encounter any issues or problems with the previous brand that led to your decision to switch?	1	2	Total
1	46	5	51
2	12	6	18
Total	58	11	69

χ^2 Tests

	Value	df	p
χ^2	5.50	1	0.019
z test difference in 2 proportions	2.34		0.019
N	69		

The study aims to determine if text blasts has an effect on the timeliness of submission of worksheets. We have conducted a z-test in Jamovi with a sample size exceeding 30,and obtaining P-value below 0.05 in table -1,so we reject the null hypothesis that Customer satisfaction is not associated with customer switching behavior.

5. Conclusion

This particular study aims to investigate the causes of brand switching in Mumbai's electronic industry. A questionnaire method has been used to gather primary data. 67 respondents reported having switched brands within the previous years. The results show that there is strong evidence that these characteristics influence brand switching by consumers. It is discovered that elements including price, marketing tactics, network quality, brand perception, and value-added services are crucial in determining brand loyalty in Mumbai's electronic sector.The results of the study demonstrate that the majority of respondents transfer service providers in reaction to changes in promotional offers, which suggests that having promotional tools is the most important aspect in customer decisions regarding brand switching.

5.1 Findings

Value-added services are the first most important factor that motivates consumers to switch brands. The pricing is the third most important element in driving people away from one brand and toward another. Charges for electrical gadgets that are too exorbitant may cause consumers to switch to other brands. Product quality is the fourth most important factor that motivates consumers to switch brands. The investigation demonstrates that a client may move to a different brand if their current provider is unable to deliver a high-quality good. The brand image of the service provider company is the factor that has the least impact on consumers' decision to transfer brands. It has been discovered that brand image also plays a significant role in influencing consumers' final choice to switch brands. According to the findings, out of all the variables, promotional activities are the one that has the biggest impact on respondents' decisions to transfer service providers. The mobile service provider needs to be aware of all elements, including marketing initiatives. Promotional activities have the greatest impact on consumers' willingness to switch brands, followed by value-added services, price, product quality, and brand image, which has the least bearing.

There are various managerial implications of these research findings. Price, network quality, value-added services, promotions & offers, and brand image all have a significant impact on brand switching. Dissatisfaction will arise if the customer is not receiving any of these services from a similar brand, which will ultimately result in brand switching and cause the brand to lose its customer base. Managers should create strategies to keep clients by concentrating on these aspects to prevent this.

5.2 Limitations of the study

Mumbai is the only city in which this study is focused. It can be expanded to include more areas, but it was unable to do so because of a lack of time and resources. Due to time and financial restrictions, the sample size was lowered; a higher sample size would have produced more accurate results. However, a qualitative viewpoint might also be undertaken by approaching management views; however, due to a limited time constraint, mixed-method techniques were not applied. This research is dependent on quantitative procedures. This research report only examines five variables; other elements influencing customer switching are not considered. Additionally, it only examines the consumer's perspective; the service provider's viewpoint is not considered.

5.3 Future Direction

To improve the accuracy of the study, additional factors might be used. Additionally, a qualitative research approach could be used in the future to thoroughly understand customer switching behavior, which would also incorporate the managerial perspective. They can use the information from this study to develop methods for luring in additional clients. Future research should take into account additional factors like consumer demographics, such as consumption patterns and life cycles, to make it more solid. Customer service representatives and technical support workers are essential in the electronic sector as they are in constant direct touch with subscribers who describe their issues and want quick fixes.

Customer dissatisfaction is unavoidable if a customer service representative is unable and unwilling to handle the customer's problems. Additionally, technical staff members need to be quick and witty in order to resolve customer service representatives' problems as quickly as feasible. Additionally, to boost customer retention and brand loyalty, short, well-thought-out, powerful, tailored service quality initiatives must be handled in order to compete in this dynamic climate.

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5. An Empirical Study on the effect of Brand Equity of Mobile Phones on Customer SatisfactionFarah Ahmad1 & Najeeb U. K. Sherwani1 1 Jamia Millia Islamia, New Delhi, India.

3. To study the customer outlook towards green infrastructure on sustainable development

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Abstract

Human-induced climate change is caused by increased greenhouse gases, population growth, consumerist lifestyles, and industrial remnants. This results in rising temperatures, severe weather, and health concerns. Green infrastructure (GI) delivers solutions by reducing harmful effects and enhancing urban life. For their advantages, green parks, gardens, roofs, and walls are attracting attention. GI is capable of creating communities that are environmentally friendly, safe and equitable. Through surveys and a literature review in Mumbai, this research seeks to learn about residents' perspectives on environmental development and sustainability.

Key Words: Ecological, Urban Green Infrastructure, Usability, Economic, Climate change, Health, SUDS

1. Introduction

In recent years, there has been a growing global recognition of the need for sustainable and environmentally friendly development practices. As concerns about climate change, resource depletion, and pollution continue to escalate, there is a pressing need to transition towards greener and more sustainable infrastructure. Green infrastructure refers to the planning, design, and implementation of natural and nature-based systems that provide multiple environmental, social, and economic benefits. Customers, as end-users and stakeholders, play a significant role in shaping the demand and acceptance of sustainable practices. Their perceptions, attitudes, and behaviours towards green infrastructure can have a profound impact on its implementation and effectiveness.

This research aims to delve into the customer outlook towards green infrastructure on sustainable and environmentally friendly development. By examining the perspectives of customers, their preferences, motivations, and barriers to adopting sustainable practices, this study seeks to provide valuable insights for policymakers, urban planners, and businesses involved in sustainable infrastructure development. The study will employ a mixed-method approach, combining qualitative and quantitative research methods to gather comprehensive data. Through surveys, interviews, and focus groups, we will explore customers' awareness and knowledge of green infrastructure, their perceptions of its benefits, and their willingness to engage in sustainable behaviours. Additionally, we will investigate the factors that influence customer decision-making, such as economic considerations, social norms, and environmental consciousness. The findings of this research will contribute to the existing body of knowledge on green infrastructure and sustainable development, providing a deeper understanding of the customer outlook in this domain.

2. Literature Review

John Symons, Roger Jones, Celeste Young, Bruce Rasmussen (2015) The have been working on a project that will result in an economic framework to assess the advantages of green infrastructure and provide a business case for commencing a process of climate change adaptation. The project is looking into the many advantages of green infrastructure, as well as its viability, in order to comprehend potential returns on investment by transforming urban settings at the local government level. The ultimate goal of this project is to level the playing field among green infrastructure investment and grey infrastructure investments at the local government level.

Barton Robison and Arjun Viray of Willamette Partnership (2019) The objective of their research was to discover any evidence to support for the link between green infrastructure and health. They determined health benefits findings in four main categories: human health, environmental health, economic health, and social health using the Green Infrastructure Evaluation Framework developed by the National Recreation and Park Association (NRPA), which broadly encompasses the social determinants of health.

Renato Monteiro, José C. Ferreira, Paula Antunes (2020) Their study finds out why it can be difficult for urban planners and other experts in the field to develop a solid green infrastructure in some parts of the world because, despite recent advances, there remains lack of consensus among researchers and practitioners with regard to the idea of green infrastructure as well as its execution approaches. In order to solve this problem, an in-depth examination of the research was carried out to find out which green infrastructure planning concepts should be taken into account in spatial planning procedures in order to support sustainability and resilience. The eight prevailing green infrastructure planning principles—connectivity, multifunctionality, applicability, integration, variety, multiscale, governance, and continuity—were chosen as a result of the research. These rules aim to encourage and make it easier for various academic and implementation groups to build and utilise green infrastructure.

Amaral, M. H. Benites-Lazaro, L. L., Antonio de Almeida Sinisgalli ,Prates da Fonseca Alves, H.& Giatti (2021) In their research, they studied the linkages between the supply and production of water, energy, and food in the Brazilian city of So Paulo. Based on the urban centre concept, the percentage of green infrastructure, and human development, its 180 communities were evaluated and divided into "losers" and "winners." They used a neural network with a self-organizing map to identify clusters of municipalities using various combinations of 19 variables from officially publicly available data. The results of the study revealed four clusters, three of which (Capital, Hinterland, and Developed Receivers) included characteristics of receivers and one of which (Providers) collected municipalities with an essential function in providing food, water, and incentives for energy production.

Kirsten McEwan (2022) In this research, the effects of implementing a Sustainable Urban Drainage (SuDs) system on people's buy-in and sustainable practises were assessed. 180 residents (in the impacted n = 79 and surrounding streets n = 101) completed surveys prior to the scheme's execution, and 51 residents completed surveys one year after the scheme's execution. Green infrastructure might promote more sustainable practises within residents. Importantly, after the SuDs finished their work, neighbours started to desire them and displayed more sustainable behaviours, which indicates spillover effects.

Recently, the 26th United Nations Climate Change Conference (COP26) took place and England has begun to think about obligatory SuDs like those in the strategy presented here. Therefore, local governments as well as other stakeholders who might discover it difficult to communicate the many advantages of sustainable urban design solutions will discover this research to be of special interest.3. Research Methodology

The suggested method relies on landscape ecology, which efficiently handles the complex link between humans and the environment. It focuses on a multi-scale strategy for developing multipurpose green infrastructure (GI) that promotes ecological, productive, and cultural objectives. The top problems that need to be resolved through GI planning at the sub-regional level are (i) raising habitat connectivity outside of protected areas in order to improve ecosystem services; (ii) raising the standard of agricultural regions within a territory; and (iii) minimising urban pressures that hinder the territorial fabric. The preservation of GI functionality and enhancement of ecosystem services, like as food supply, are vital for increasing urban resilience and sustaining the identity and cohesion of traditional civilizations.

3.1 Research Gap

The implementation of green infrastructure has been viewed as an effective approach for reducing the impacts of climate change, improving urban resilience, and improving quality of life in society. However, in order to fully fulfil the promise of green infrastructure and ensure its successful integration into urban planning and development, there are still substantial research gaps that need to be filled. It is essential to figure out whether Mumbai’s residents believe in improving their environmental sustainability towards the atmosphere they work in that could indirectly enhance their prospects for a pleasant future. Not only will these findings benefit Mumbai's residents, but they will also help policymakers in determining the level of public awareness surrounding it and what must be done specifically to ensure its success.

3.2 Objectives of Study

• It offers an organized approach to preserve and enhance ecological and biological systems at various urban scales, from suburban areas to a metropolitan area.

• It helps in maintaining urban ecosystems by regulating and assisting the passage of water, energy, materials, and organisms.

• It enhances the efficiency of conventional systems of infrastructure and minimizes their carbon footprint through incorporating ecological functions into it.

• It improves the built environment's resilience. The lives of everyone will be improved by creating a green infrastructure evaluation framework for enhancing ecological services.

3.3. Data Collection & Sampling

1. To collect data that would serve as the source of primary data, a standardized questionnaire was given to Mumbai residents aged 21 and older.
2. The primary data for the study were collected using a convenience sample method. The respondents were given explanations of the questions, and the data was collected objectively.
3. The secondary data was acquired from publicly accessible sources, including books, journals, websites run by the government.

3.4 Scope of the Study

The study will concentrate on a sample of 114 citizens from different Mumbai areas. To ensure representation from an array of population backgrounds, the sample will be chosen using a combination of random and stratified sampling approaches, taking into account factors including age, familiarity with the idea, and willingness to work towards its adoption. The participants should be informed or acquainted with green infrastructure in cities.

The study will utilise a combination of both qualitative and quantitative methods of data collection to collect information on Mumbai customers' opinions of green infrastructure. The questionnaire will evaluate participants' knowledge, perception, attitudes, and opinions on Mumbai's green infrastructure.

3.5. Hypothesis

Hypothesis 01

H0: Implementing green infrastructure has no significant impact on the quality of life, urban resilience, and environmental sustainability.

H1: Implementing green infrastructure positively impacts on the quality of life, urban resilience, and environmental sustainability.

Hypothesis 02

H0: There is no significant difference in the preservation and enhancement of ecological and biological systems between the organized approach and existing urban planning methods across various urban scales.

H1: The organized approach significantly enhances the preservation and enhancement of ecological and biological systems compared to existing urban planning methods across various urban scales.

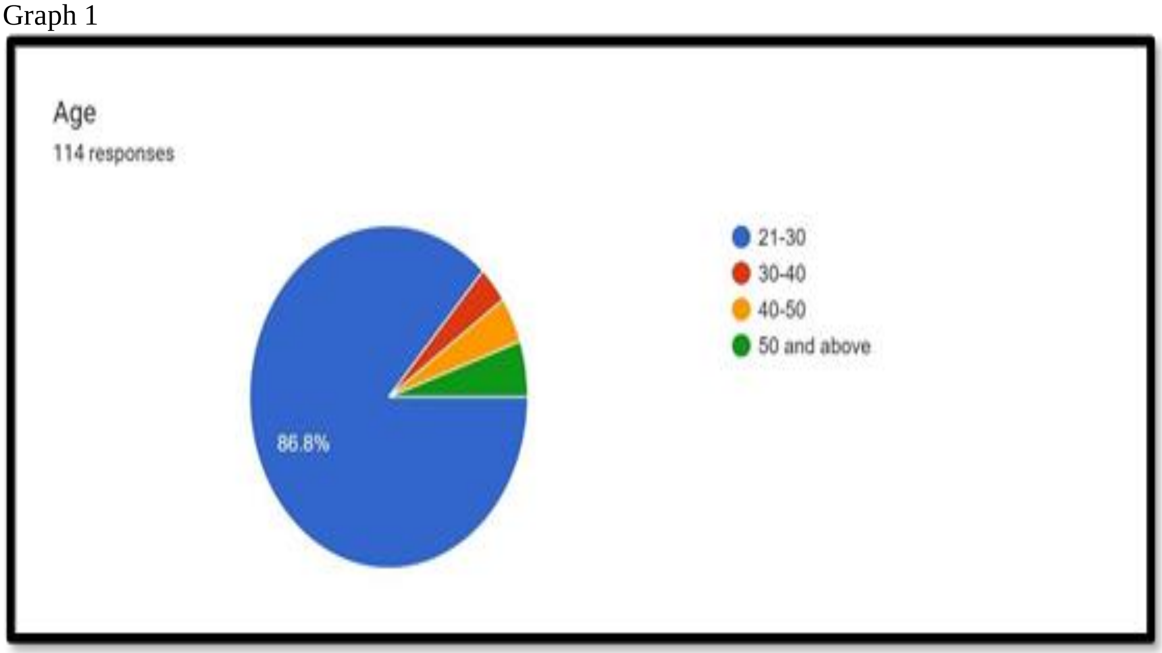
3.6 Variable

Independent Variable: Flexible working arrangements

Dependent Variable: Employees Work Life Balance

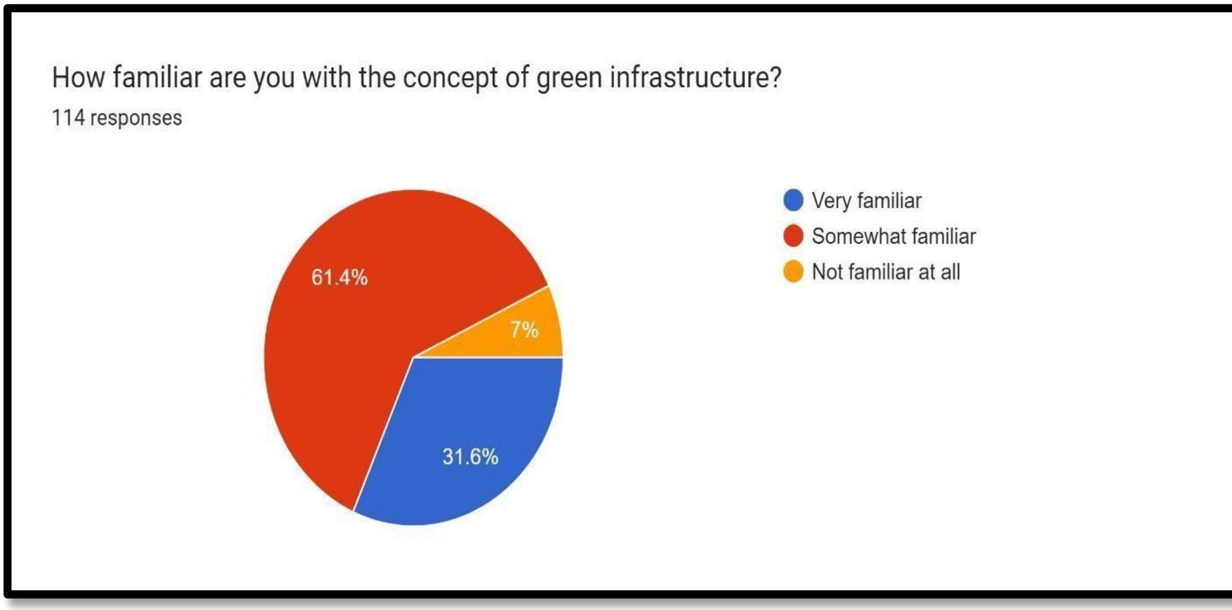
4. Data Analysis & Interpretation

Graph 1



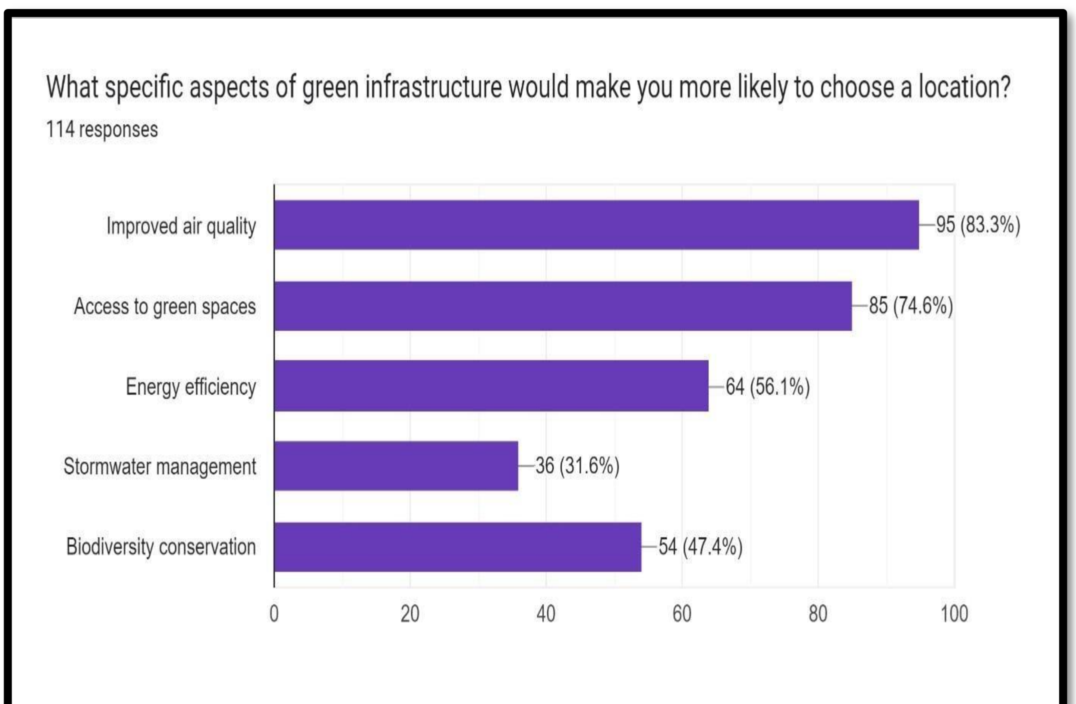
(Source: Primary data)

Graph 2



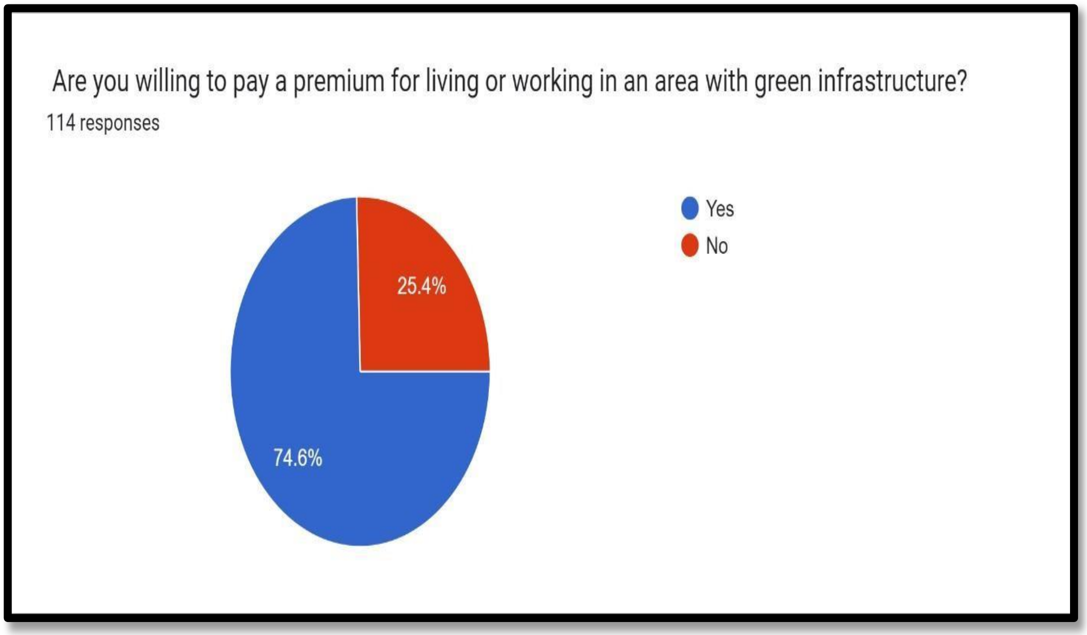
(Source: Primary data)

Graph 3



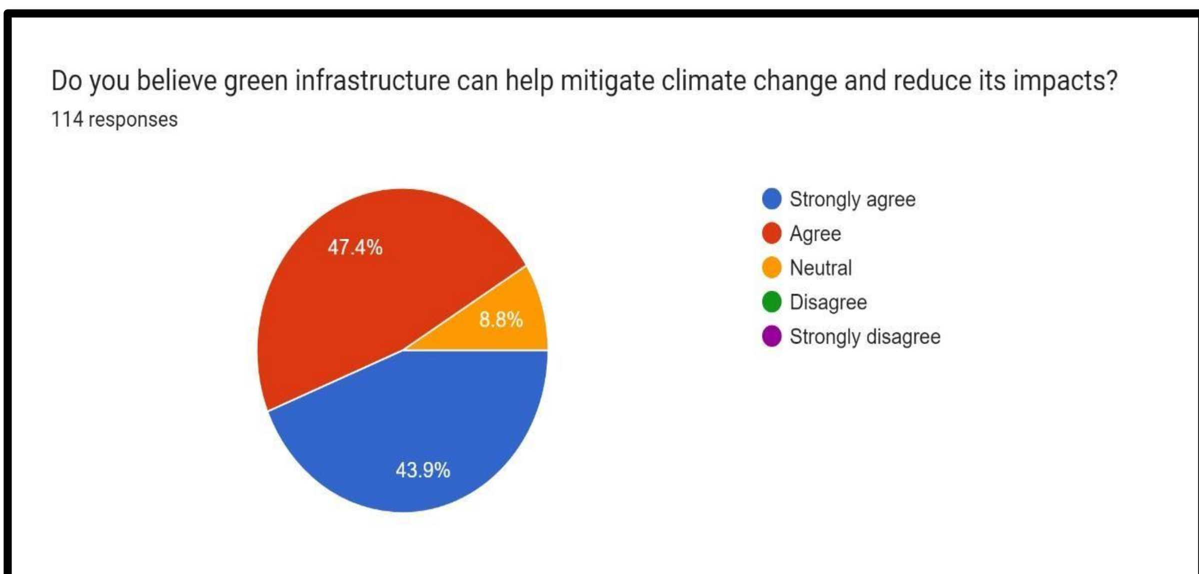
(Source: Primary data)

Graph 4



(Source: Primary data)

Graph 5



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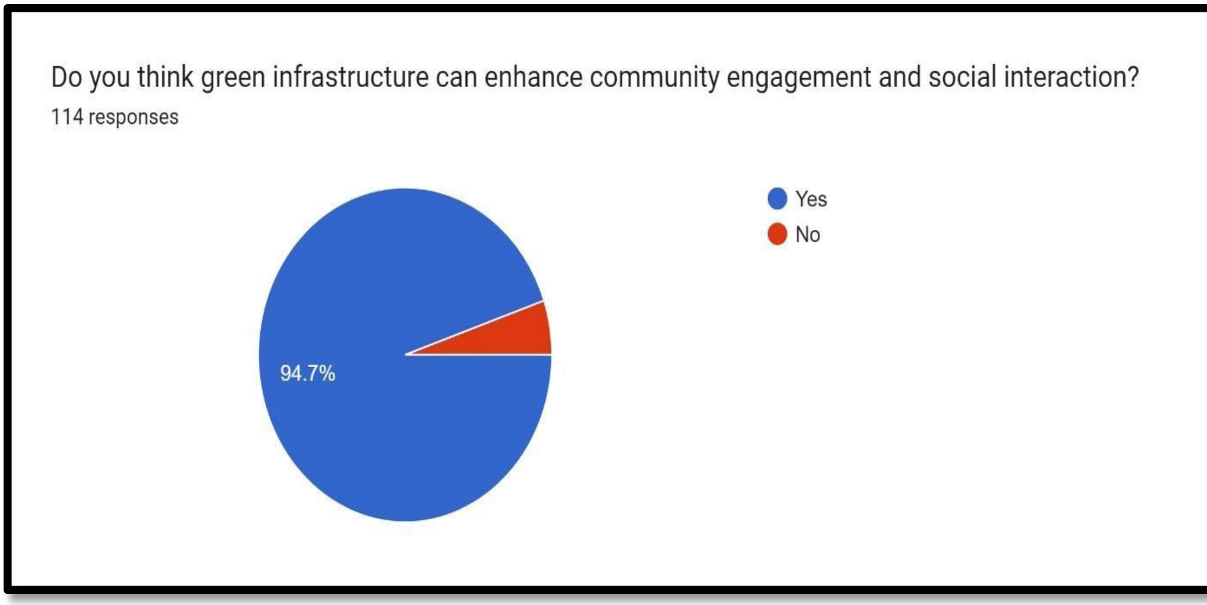
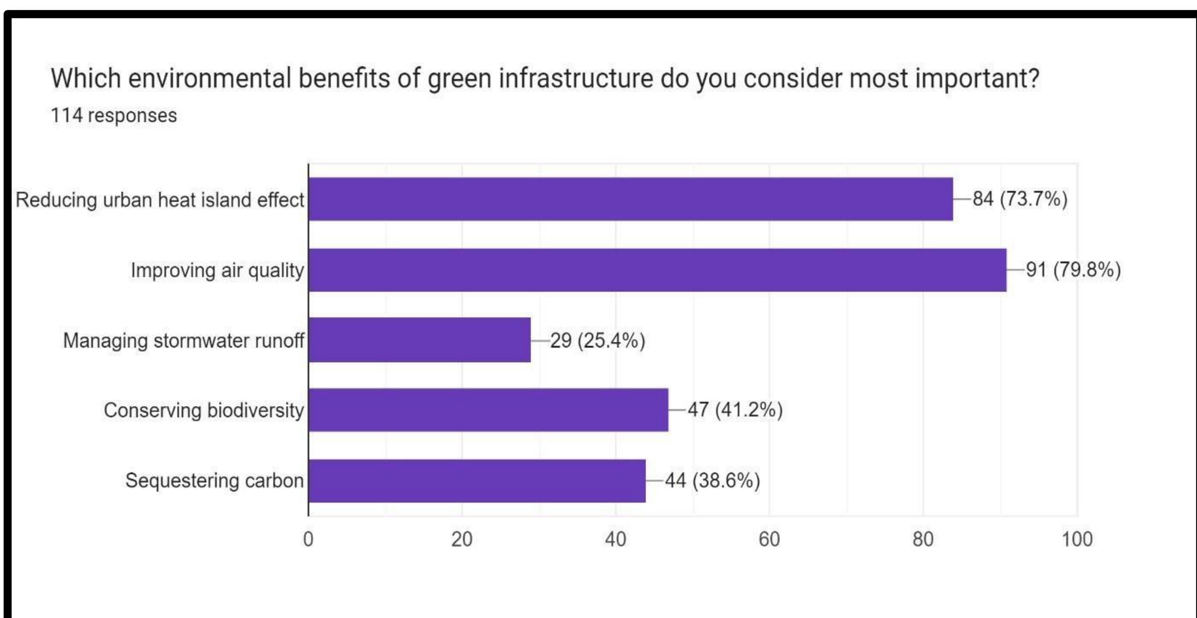
Graph 6



(Source: Primary data)

Graph 7



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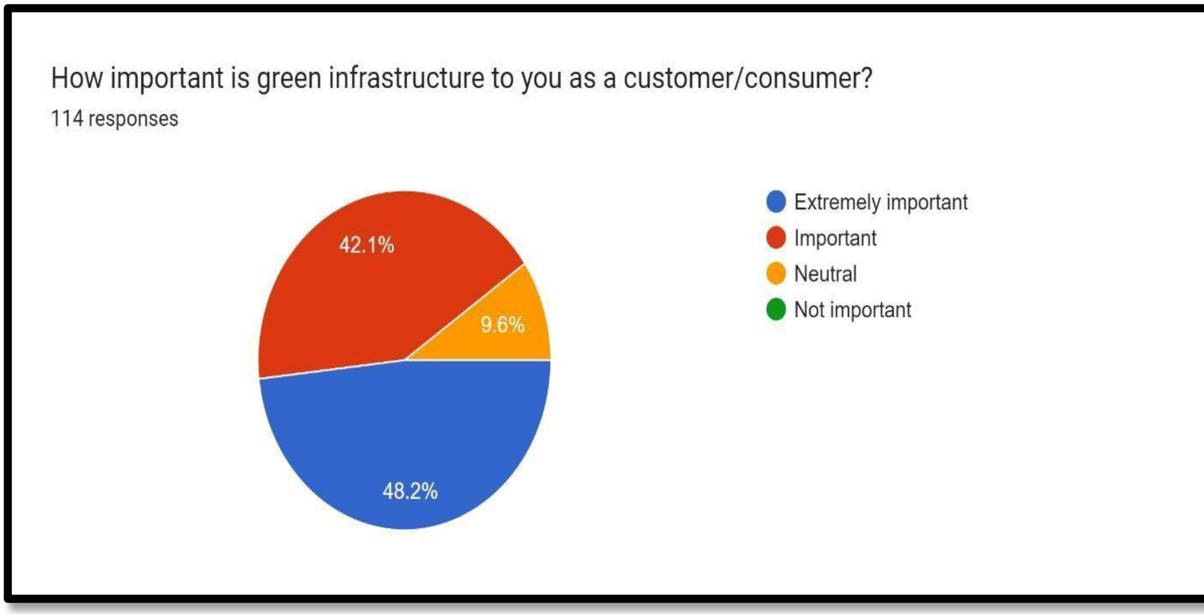
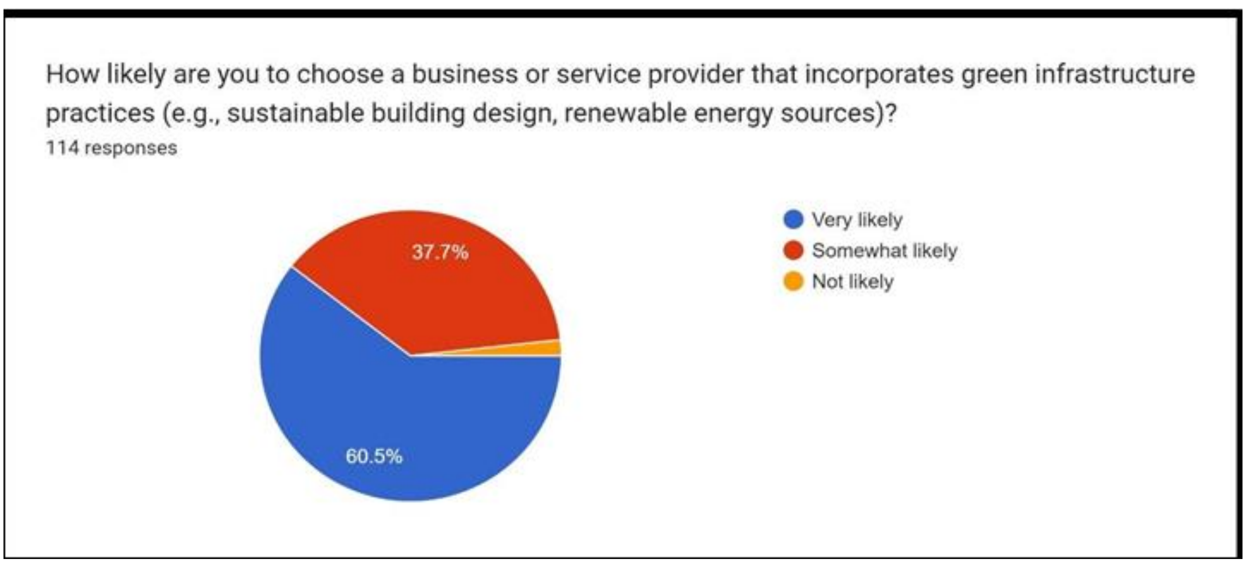
Graph 8



(Source: Primary data)

Graph 9



(Source: Primary data)

•The ultimate reason for studying the customer outlook towards green infrastructure on sustainable development is to gather insightful data that can be analyzed to identify potential barriers, incentives, and preferences. This will inform policy decisions, shape effective marketing strategies, and foster the widespread adoption of eco-friendly practices.

•**Familiarity with Green Infrastructure**:

Very Familiar: 31.6% of the respondents indicated that they are "very familiar" with the concept of green infrastructure. This suggests that a significant portion of the participants have a deep understanding of the topic.

Somewhat Familiar: 61.4% of the respondents reported being "somewhat familiar" with green infrastructure. This indicates that a majority of the participants have some level of knowledge about the concept, although it may not be as extensive as those who are "very familiar."

Not Familiar at All: 7% of the respondents stated that they are "not familiar at all" with green infrastructure. This small percentage suggests that only a few participants lack any knowledge or awareness of the topic.

•**Improving Air Quality**: This benefit received the highest percentage of agreement at 79.8%. Respondents recognize the positive impact of green infrastructure in enhancing air quality by filtering pollutants and releasing oxygen.

•**Reducing Urban Heat**: The second most important benefit, with 73.7% agreement, indicates a strong acknowledgment of green infrastructure's role in mitigating the urban heat island effect and creating cooler, more comfortable environments in cities.

•**Managing Storm water**: 25.4% of respondents identified this benefit, emphasizing the potential of green infrastructure in effectively managing stormwater runoff and reducing the risk of flooding and water pollution.

•**Conserving Biodiversity**: 41.2% of respondents recognized the significance of green infrastructure in supporting and preserving biodiversity by providing habitats for various species within urban areas.

•**Sequestering Carbon**: With 38.6% agreement, respondents acknowledged the role of green infrastructure in absorbing and sequestering carbon dioxide, contributing to mitigating the effects of climate change.

5. Conclusion

The outcomes of this study add a variety of broad concepts (trends, areas, and innovative terminology) to ongoing studies in fields regarding green infrastructures and the environmental benefits they offer.

We have highlighted the research areas associated to green infrastructures, environmental services, and climate change via the analysis of the Keyword and Keyword Plus. In order to accomplish this, a cluster analysis and a research trends study were developed. In the first instance, five clusters have been identified that center on the adaptability and multi-functionality of green infrastructures in urban settings, their role in providing environmental amenities for society, their connection to biodiversity preservation, their significance for climate change policies, how they can improve human health, and finally the way they can be applied to particular urban design and planning issues.

5.1 Limitation

As the survey is cross-sectional, it is able to reflect the customer's perspective on green infrastructure at certain points in time. The customer's perspective might change over time. When analysing their attitudes towards green infrastructure, customers could have varying interpretations of their encounters and may be influenced by personal biases, sentiments, or expectations.

The various kinds of green infrastructure that are accessible are not taken into account in the study. The methods that customers participate with green infrastructure are not taken into account in the study. The survey does not take into account the various elements that impact consumer support for environmentally and sustainable friendly growth.

5.2 Findings

Most survey participants exhibited moderate to substantial levels of knowledge of green infrastructure and its potential advantages. Strong environmental concerns as a rising interest in environmentally friendly practises were indicated by customers. One key element influencing consumer adoption of green infrastructure is its affordability. Customers' adoption of green infrastructure is heavily influenced by its accessibility and availability. When executing green infrastructure projects, customers underlined the significance of trust in both the public and private sectors.

5.3 Suggestions

To close knowledge discrepancies and improve consumer understanding of the benefits of green infrastructure, create broad awareness and education campaigns. Introduce monetary incentives to encourage customer engagement and reduce the cost of initial investment, such as tax credits, credits, and subsidies. Invest in the development and growth of green infrastructure, particularly in underserved and remote regions.

Encourage firms to give the development of sustainable and environmentally friendly products and services as the first priority. Promote partnerships between corporations, governments, and communities at large to create and put into operation green infrastructure projects. Establish trust by promoting transparency and accountability in green infrastructure projects. Engage the community in promoting ownership and participation in green infrastructure projects.

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4. A study on impact of HRIS on organizational efficiency

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Abstract

The purpose of this research is to examine the impact of Human Resource Information Systems (HRIS) on organizational efficiency in the Mumbai area. It examines employee and HR professional understanding of HRIS and evaluates its effects on several aspects of efficiency. While the findings indicate that HRIS is well known, the study reveals that its full potential remains unexplored. To improve organizational efficiency, the report recommends improving HRIS education and strategic utilization. The study assesses the impact of HRIS on eliminating manual HR operations, lowering costs, improving data security, and increasing employee satisfaction and competitive advantage. It emphasizes the automation of HR procedures, allowing for data-driven decisions and employee self-service possibilities. The report emphasizes the importance of HRIS in strategic decision-making, overall efficiency, and the evolution of HR professionals' roles. HRIS contributes considerably to organizational planning and performance development by focusing on optimising data handling, minimizing errors, and improving accessibility. For organizations wanting to improve efficiency through cost control, time efficiency, and strategic decision-making, the research advises a well-implemented HRIS system.

Keywords: Human Resource Management (HRM), Human Resources Information System (HRIS), Organizational Efficiency, Employee Performance.

1. Introduction

Human Resource Information Systems (HRIS) are essential for improving organizational efficiency because they streamline HR procedures, encourage data-driven choices, and reinvent the employee experience. These technologies save time and lower the possibility of error by streamlining processes including benefits enrolment, payroll processing, and attendance monitoring. By offering insights into workforce demographics, performance indicators, and skill shortages, HRIS promotes a data-driven strategy that makes informed decisions for strategic planning possible.

HR staff members are relieved of some of their administrative duties when employees use the employee self-service portals in HRIS to manage their data, seek time off, and access benefits on their own. Notwithstanding the obvious advantages, incorporating HRIS into current technological ecosystems necessitates resolving privacy and data security issues in addition to implementing efficient change management to overcome resistance from staff members used to conventional procedures.

Companies claiming increases in HR speed and accuracy as well as significant operational cost reductions serve as real-world examples of the revolutionary influence of HRIS on operational efficiency. HRIS features include enhanced communication, scalability and adaptability, data-driven decision-making, automation and time-saving, employee self-service, and more. The payroll and compensation management, attendance and time tracking, applicant tracking as well as recruitment, performance management, training and development, analytics and reporting, legal compliance, and succession planning are all important parts of HRIS.

2. Literature Review

(Nikhal Aswanth Kumar, Sanjana Brijball Parumasur) - This research looked at how a Human Resources Information System (HRIS) improves how well an organization works as a whole. They studied how the HRIS affects different areas likeHR tasks, time management, saving costs, and how satisfied managers are with the system. They asked 101 managers from a Municipality in South Africa to answer a setof questions about the HRIS. They checked if the questions were good and reliable by doing some math tests.

Then, they looked at the answers using special math methods. The results showed that the HRIS does make the organization work better overall and in different ways, like handling HR jobs, managing time, saving money, and making managers happy. This means that if a good HRIS is used, the organizationcan become more effective in doing its work and achieving its goals

(Dr. Srinivasa rao, Sharon Jyothi Kannipamula, Dharma Teja) - A Human Resource Information System (HRIS) is like a well-organized tool that helps a company manage its employees. It includes technology, software, forms, rules, ways of doing things, and data. With HRIS, companies collect, keep track of, study, and share information about their employees and jobs. We know that HRIS can make companies perform better, but not many studies have proven it yet. This study looked at how HRIS affects how well a company does, specifically in the IT industry. First, they figured out the important parts of HRIS and company performance by looking at what others have written. Then, they made a survey based on these ideas. They asked 63 people who work with HRIS in different companies to answer the survey. They used a math method called "multiple regression" to see if there's a link between HRIS and how well a company does. The results showed that, except for one idea (which is called "hypothesis-IV"), the things they thought would happen actually happened. In simple words, the study found that using HRIS makes companies do better, and they have evidence to support this idea

(Ilhami Kaygusuz, Tahir Akgemci, Abdullah Yilma) - In today's competitive world shaped by globalization and the Digital Revolution, companies must monitor their environment and manage their workforce strategically. Strategic Human Resources Management, which uses technology to handle employee information and processes, plays a vital role. This study explored how technology impacts employee performance and overall company efficiency. Data was collected from 160 managers and employees in industries like manufacturing and banking. The results showed that using technology to manage employees positively affects how well a company operates, leading to better employee performance In simpler terms, technology- driven workforce management boosts company efficiency and employee job performance.

(Fahad Batashi Vishal Dattana) - A Human Resource Information System (HRIS) is like a special computer program that helps people who work in human resources (HR) do their jobs better. Imagine it as a helpful tool for HR officers. At a company called TS, they studied how this tool helps. They talked to 100 employees to get their opinions. TS already uses HRIS, but they wanted to check if it's really helpful. The results showed that HRIS is good for communication, planning resources, and finding new people to join the company. It also saves time, which used to be wasted. When HRIS is used, HR managers can do their tasks well. They can manage things and share resources fairly. This makes the company work better. The system helps give out things like people and materials to different parts of the company. At TS, using HRIS made the workers better at their jobs. They got more work done and did it well.

(Hitesh Monga) - Due to the technological revolution, workplaces today have changed significantly, becoming more efficient through the use of new techniques. Most organizations now understand the importance of storing and retrieving information. This paper focuses on how modern technology is improving HR (Human Resources) functions. The Human Resource Information System (HRIS) offers organizations the chance to involve the HR department both in administrative tasks and strategic operations. The main goal is to see how much HRIS is being used to enhance the administrative andstrategic functions of HR. To do this, we surveyed 18 HR Managers from different private companies in Punjab. The results reveal that HRIS is indeed being used positively to improve administrative efficiency and bring value to the department. However, these benefits are hard to measure precisely.

(G.T.T.K. Pushpasiri and G.T.S.Y. Pushpasiri) - His study aimed to find out how a Human Resource Information System (HRIS), which is like software to manage employee data, affects how well employees do their jobs. Employee job performance means how much an employee helps their company. Most studies on this were done in a certain part of Sri Lanka, but this one was done in a different part. This research used a deductive approach and a type of survey where people filled out questionnaires. They picked a good company and gave questionnaires to 85 full-time workers in the southern part of Sri Lanka. They used a computer program called IBM SPSS to look at the answers and see if there were any connections between HRIS and employee performance. They looked at things like time and attendance records, training, performance evaluations, and self-service tools as parts of HRIS. The results showed that four aspects of HRIS had a positive impact on how well employees did their jobs.

(Sulaiha Beevi Athambawa) - To remain competitive and keep their business running in today's competitive industries, organisations must adapt to changes in their environment, both inside and outside. Strategic Human Resource Management is one effective strategy to manage these changes. This is the method by which organisations manage their staff and overall strategies using smart techniques. In today's huge-data era, information and trained personnel are critical for businesses. They gather, produce, organise, share, and use technology to gather, develop, organise, share, and apply this information in their strategic planning. This research looks at how information and the technologies used to handle it are becoming increasingly important in how organisations are run. It also examines how this affects managers' understanding of their business and how in this Big Data era, they manage their staff. A substantial part of this research focuses on how the tools used to handle employee-related information, known as Human Resources Information Systems (HRIS), affect employee performance. It argues that organisations should concentrate on utilising these methods to foster a pleasant work environment, which will result in improved performance from individuals and the organisation as a whole.

(M. Anupa) - In today's modern and globalized world, organizations rely heavily on technology, especially in the field of Information Technology (IT). The Internet and automation have made information easily accessible, reliable, and accurate. They have also improved how organizations operate and lead by applying technology to various tasks. One important aspect of this is the Human Resource Information System (HRIS). It's specialized software designed to help organizations automate and manage their HR, payroll, management, and accounting activities. HRIS helps with various HR tasks like hiring, training, performance evaluation, and job analysis. Studying HRIS helps us understand how well-organized HR practices help organizations achieve their goals and align with their business strategy. It's important to communicate the benefits of HRIS to employees so they can make the most of it. The goal of this study is to look at how certain software companies in India use HRIS for record- keeping and updating. The study will also suggest effective HRIS practices that can help the organization reduce paperwork, maintain privacy, and ensure accessibility. The study aims to show the value of adopting technology in the workplace and how quickly it can become a standard way of doing things. In simpler terms, this research helps us understand how technology can improve the workplace and suggests ways to use it effectively.

(Jayasimha Prasad) - The main goal of this research is to study how a special computer system used by human resources, called HRIS, affects how well retail companies in Canada do their work. We want to understand how important this system is, what it does, and how it helps companies do better. We'll also look at the problems companies face when they try to use this system. In general, we want to learn about this system and how it helps HR departments in different companies.

(Mohd Bashir Ra'ed Bani Ismail, Mohd Saiful Izwaan Saadon, Jasem Taleb Al-Tarawneh & Aya Naser Maqableh) - In organizations, Human Resources (HR) is considered an important strategic asset. Managing HR is a key technique for overall management. Organizations need to regularly keep track of changes both inside and outside the company. However, some developing countries, like Jordan, face challenges in using HR Information Systems (HRIS). Previous research has looked at how HRIS affects how well organizations perform. This study focuses on how using HRIS in Jordan's higher education institutions affects how well they work and how employees perform. The researchers collected responses from 326 staff members in these institutions. About 65% of them responded. They used a tool called Smart PLS to analyze the data.
The results showed that using HRIS had a big, positive impact on how well employees performed and how efficiently the institutions worked. The efficiency of the institutions acted as a partial link between using HRIS and how well employees performed. This information can help HR managers understand how HRIS can be useful for both academic institutions and organizations.

(K.A.H.M, Kumari; W.W.A.N, Sujeewa) - In today's global networked era, people and information are vital for an organization's success. Human Resource Management (HRM) now blends with technology, especially through Human Resource Information Systems (HRIS). These systems help organizations manage HR tasks efficiently. Over the last decade, the use of HRIS has grown, especially in the apparel industry in Sri Lanka, known for its large employee base and turnover. This study explores how HRIS impacts organizational performance in Sri Lankan apparel companies. It focuses on HRIS modules like E-recruitment, E-payroll, E-performance, and E-training. The study surveyed 120 employees, including managers, HR, IT, and salary department staff.

Results showed that HRIS modules directly affect perceived organizational performance. E-recruitment and E-payroll are heavily used, along with E-performance and E-training. Among these, E-recruitment, E-payroll, and E-performance are most effective in predicting organizational performance. To summarize, this research highlights the importance of HRIS in enhancing organizational performance, especially in areas like recruitment, payroll, and performance management. Implementing HRIS can provide a competitive advantage for organizations.

(Harshith.N, Sujay Mugaloremutt Jayadeva, Dr.Rachana Rajendra Shikhare, Surabhi Verma) - A "Human Resource Information System" (HRIS) is a specialized software that connects human resource management with information technology. It's a tool used by businesses to manage various aspects of their workforce. HRIS helps HR departments by providing an online platform to input, track, and access employee data, while also assisting with tasks like payroll and compliance. In essence, HRIS merges the principles of human resource management with technology, streamlining essential HR activities. To understand how HRIS effectiveness is influenced, a survey was conducted with 226 HR professionals from different organizations. The goal was to identify the factors that impact the efficiency of HRIS. In simpler terms, HRIS is like a digital hub that helps HR teams handle employee-related tasks more easily. The survey asked HR experts from various companies about what factors affect how well this system works. This information can guide organizations in making HRIS more effective for their needs.

(Nicholas Aston Beadles II, Christopher M. Lowery, Kim Johns) - Authors suggest that using a Human Resource Information System (HRIS) should bring good results for a company. These include saving money, better communication, and less time spent on boring tasks. This should make the HR department more important in the company's plans. We did a study with HR directors from public universities to see if this is true. We found that while HRIS is useful, it hasn't fully become as helpful as it could be in these universities.

(Laith T. Khrais, Osman S. Shidwan, Ahmed Alafandi, Norah Yousif Alsaeed) - This research paper focuses on how a Human Resource Information System (HRIS) affects manufacturing companies in the Middle East. An HRIS helps with managing employees better. The study looks at how HRIS influences Human Resource Management (HRM) in these companies. The study examines how HRIS impacts HRM effectiveness in chosen Middle Eastern manufacturing companies. HRIS includes things like good communication, top management involvement, HR management, and training systems. This is linked with how well HRM functions like hiring, performance, and planning are carried out in these companies. The researchers collected information from existing surveys and used a tool called SPSS to analyze it. The results showed that about 85% of the differences in HRM effectiveness among the chosen Middle Eastern manufacturing companies can be explained by HRIS. This means that using HRIS can be really helpful for managing employees well in these manufacturing companies

(S.M.Sayem, Sumaiya Siddiqua) - This research focuses on how using HRIS (Human Resource Information Systems) affects the performance of organizations in Bangladesh. HRIS is a technology that helps with managing employee-related tasks. It's becoming more important as it can improve productivity and competitiveness. This study explores how HRIS impacts HR and Information Systems in Bangladesh and similar developing countries. The research findings aim to help organizations enhance their performance by effectively using HRIS for sustainable development. The data collected for this research is primary, and it's analyzed in tables. The study is descriptive and uses these tables to show the frequency of responses to different questions about HRIS. Currently, many companies in Bangladesh use HRIS for basic tasks like calculating salaries and tracking attendance. But they often don't use its full capabilities, like HR planning, recruitment, employee training, and development. The research suggests that using HRIS more comprehensively can benefit various sectors and guide organizations in Bangladesh to make better use of HRIS for their growth and success.

3. Research Methodology

3.1 Research Gap

Addressing errors in manual HR processes, implementing an HRIS aims to enhance efficiency, cut costs, and improve financial operations. The study will focus on safeguarding private employee information, considering data security and privacy. Additionally, it will examine the impact of HRIS on employee engagement and satisfaction through adjustments in self-service options and communication. Leveraging technology for quick information retrieval, HRIS prevents redundancy, allowing HR staff to focus more on strategic planning. Ultimately, the goal is to boost organizational effectiveness and gain a competitive edge, ensuring managerial satisfaction with the HRIS.

3.2 Objectives

1. The purpose of this study is to determine the efficiency of HRIS in today's organizations.
2. To understand how the role of HR professionals has evolved since the adoption of HRIS.
3. To identify which HR functions have been primarily affected by the implementation of HRIS within the organization.
4. To assess the level of familiarity among participants regarding HRIS, which is used for managing HR processes.

3.3 Data Collection and Sampling

This study used a mixed-methods approach to examine views of HRIS awareness and efficiency by utilizing primary and secondary data sources. Using a random sampling approach, a structured questionnaire was disseminated to gain insights from a varied group of participants regarding social media usage, hiring practices, preferences, and demographics. Concurrently, further contextual understanding was supplied by secondary data sourced from government websites, academic journals, and public forums. Combining these sources enables a thorough analysis of the complex dynamics surrounding the influence of HRIS on organizational effectiveness.

3.4 Sample Size

This research effort used a carefully made survey to collect data from a broad group of participants to analyze the impact of Human Resource Information Systems (HRIS) on Organizational Efficiency among employed employees. A total of 55 people participated in the survey, providing essential and insightful feedback. This sample size of 55 respondents is considered typical of the larger population under examination in this study.

3.5 Significance of Study

HRIS improves HR operations, saves time and money, improves decision-making, and improves the employee experience, making the research of its effects on organizational efficiency crucial. Additionally, it promotes benchmarking and performance evaluation, helps scalability, improves people management, assures compliance and security, and increases organizational agility. Overall, it assists businesses in maximizing HR procedures through the use of technology and cultivating a more effective and motivated workforce.

3.6 Hypothesis

H0 (Null Hypothesis): There is no significant impact of HRIS on organizational efficiency

H1 (Alternative Hypothesis): There is a significant impact of HRIS on Organisation Efficiency

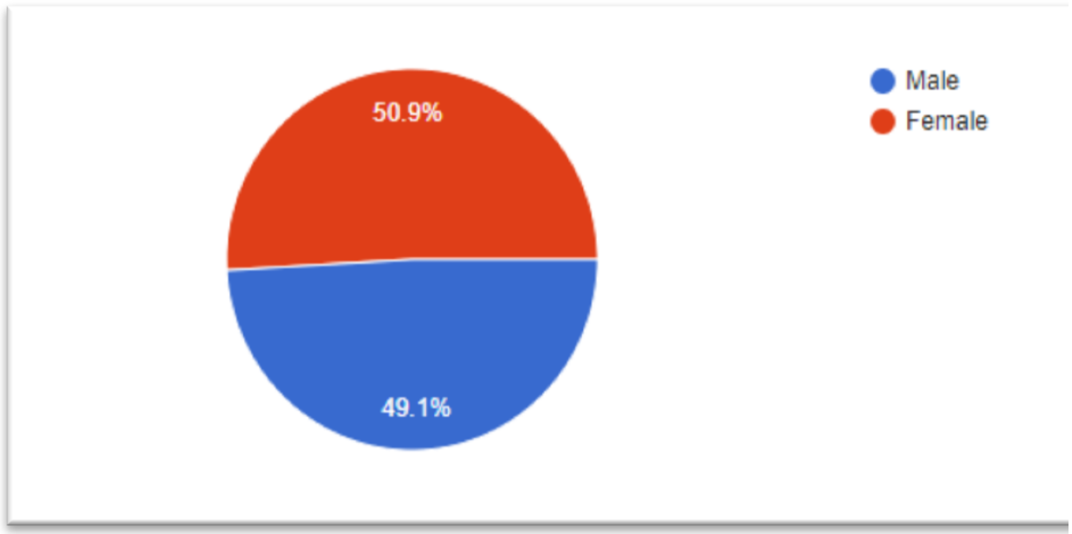
3.7 Variable

Dependent Variable: HRIS

Independent Variable: Organizational Efficiency

4. Data Analysis & Interpretation

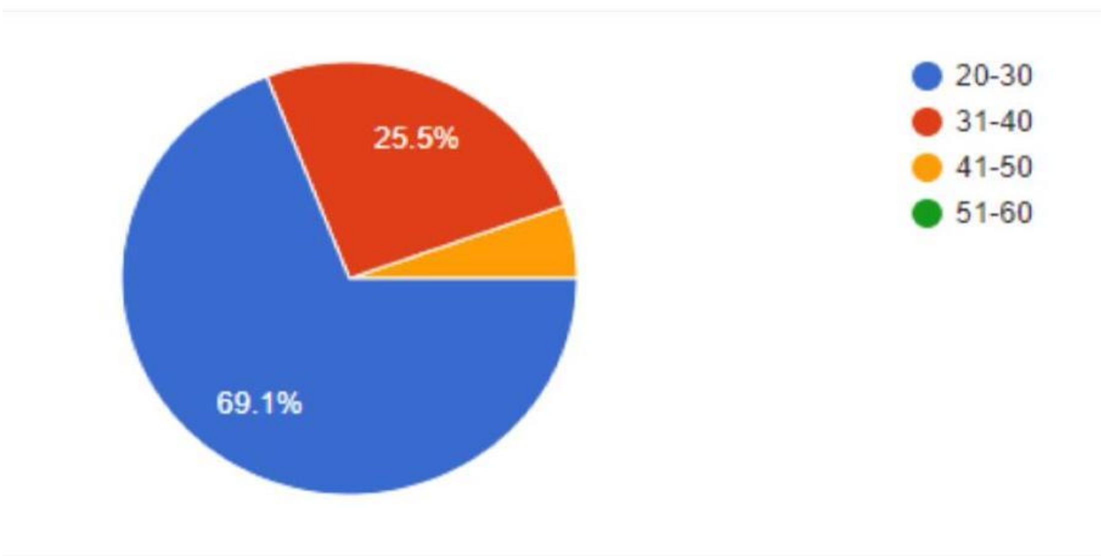
Graph 1 : Gender



(Source: Primary data)

Inference: The data indicates that, out of the total sample being considered, approximately 49.1% are female, while approximately 50.9% are male

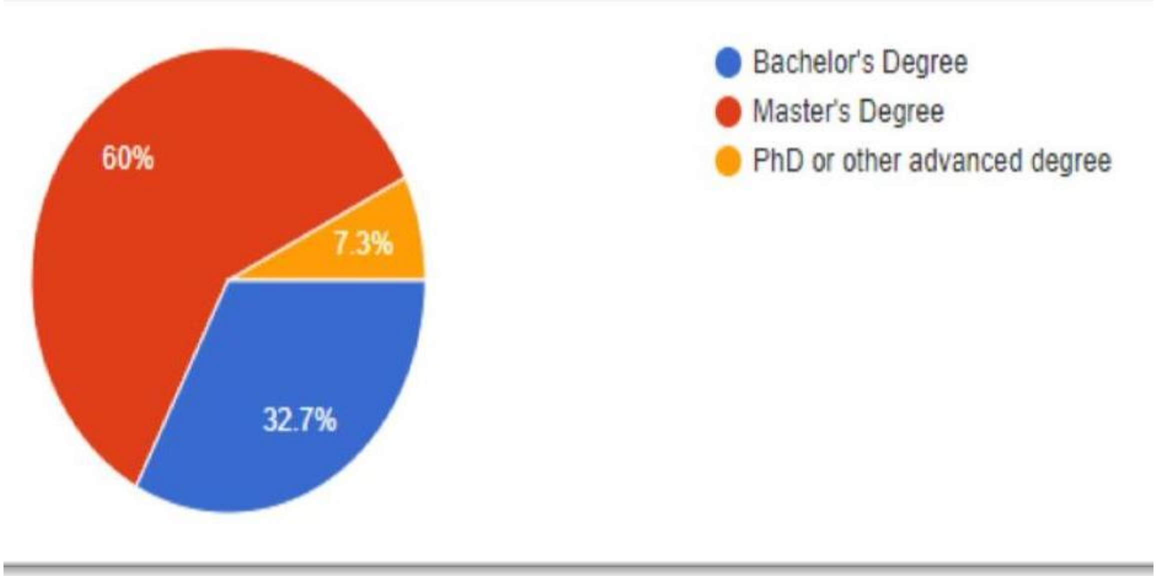
Graph 2: Age



(Source: Primary data)

Inference: Respondents from the age range of 20-30 are the highest with69.1%, while respondents ranging from 31-40 are 25.5%, respondents of age 41-50 are 5.5%

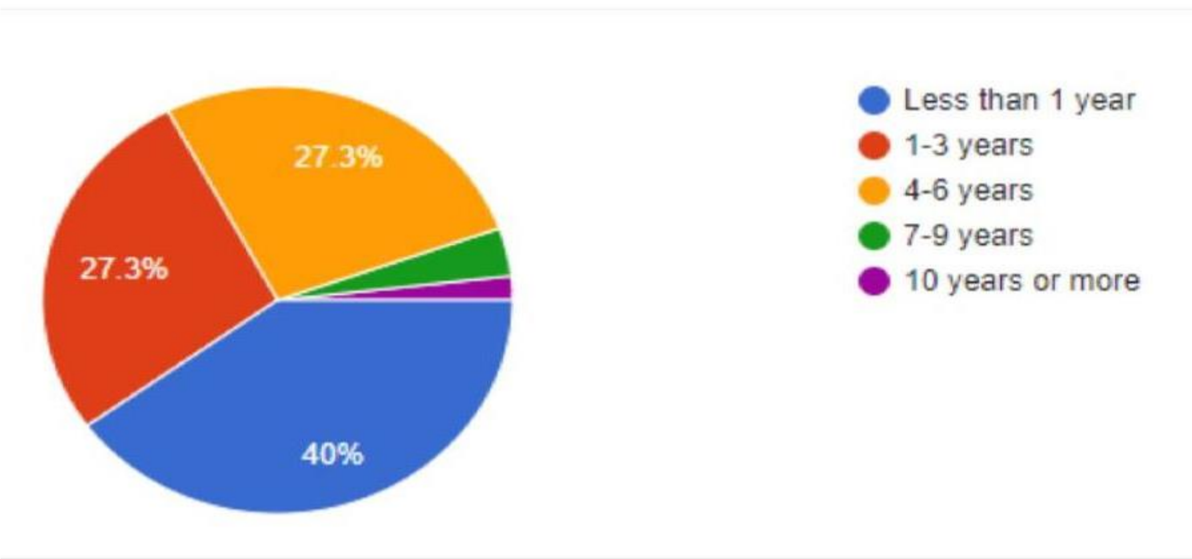
Graph 3: Educational Background



(Source: Primary data)

Inference: According to the above data around 60% of individuals have attained a master's degree, 3.3% have achieved a bachelor's degree, and 7.3% of respondents have successfully obtained a Ph.D. or an advanced degree

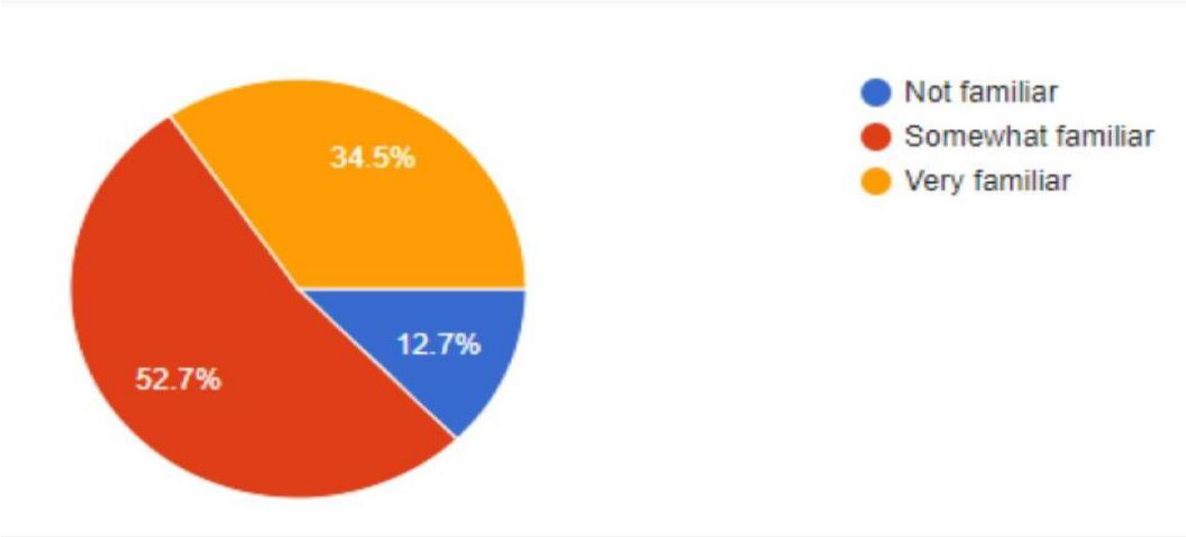
Graph 4: Work Experience



(Source: Primary data)

Inference: Based on the information given, 40% of the people surveyed have less than one year of experience, 27.3% have 1-3 years of experience, another 27.3% have 4-6 years of experience, 3.6% have 7-9 years of experience, and 1.8% have 10 or more years of experience.

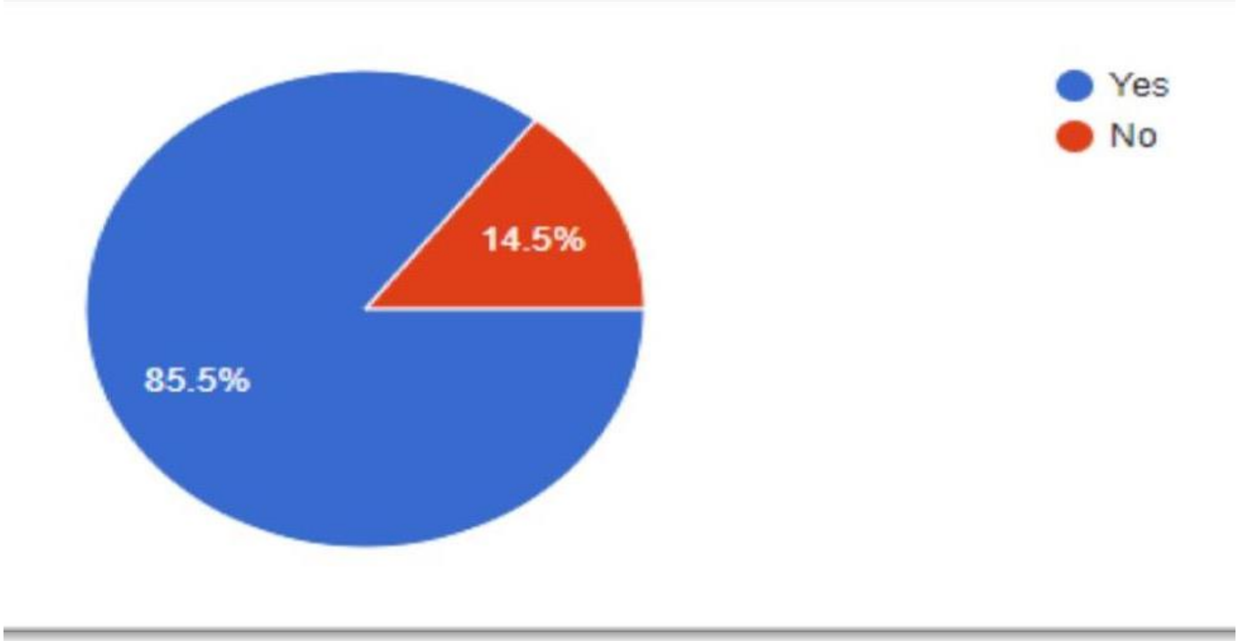
Graph 5: What is your current level of familiarity with HRIS?



(Source: Primary data)

Inference: Among the respondents, 52.7% have some knowledge about HRIS (Human Resource Information System), 34.5% are highly familiar with it, and 12.7% are not familiar with it at all.

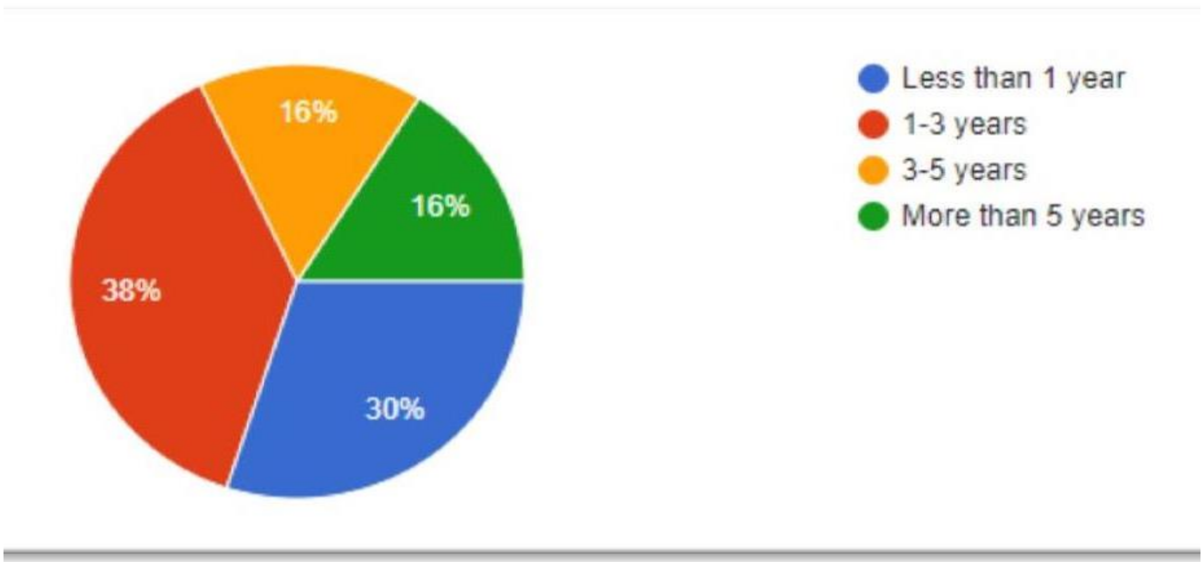
Graph 6: Does your organization currently use an HRIS?



(Source: Primary data)

Inference: Out of all the people surveyed, 85.5% said their organization is using HRIS (Human Resources Information System), while 14.5% mentioned that their organization is not using it.

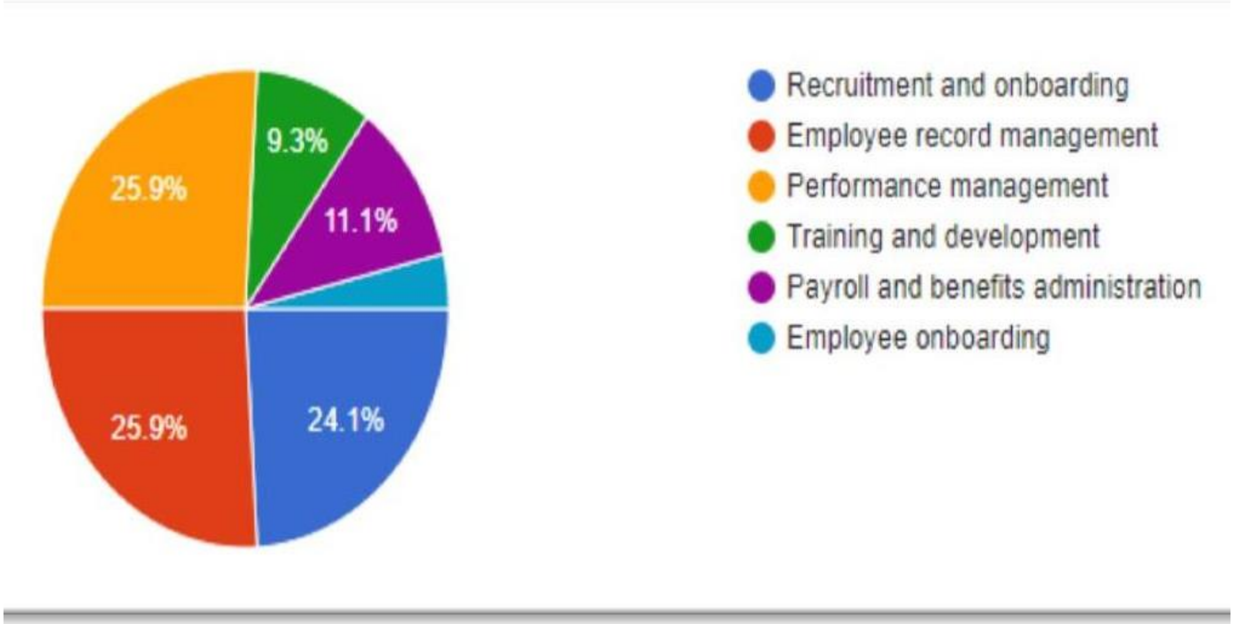
Graph 7: If yes, how long has your organization been using the HRIS?



(Source: Primary data)

Inference: According to the above data 30% of the participants said they had used it for less than a year, while 38% said they had used it for between one and three years. Another 16% said that they had been using it for a significant amount of time greater than 5 years, while a further 16% stated usage lasted between 3 to 5 years.

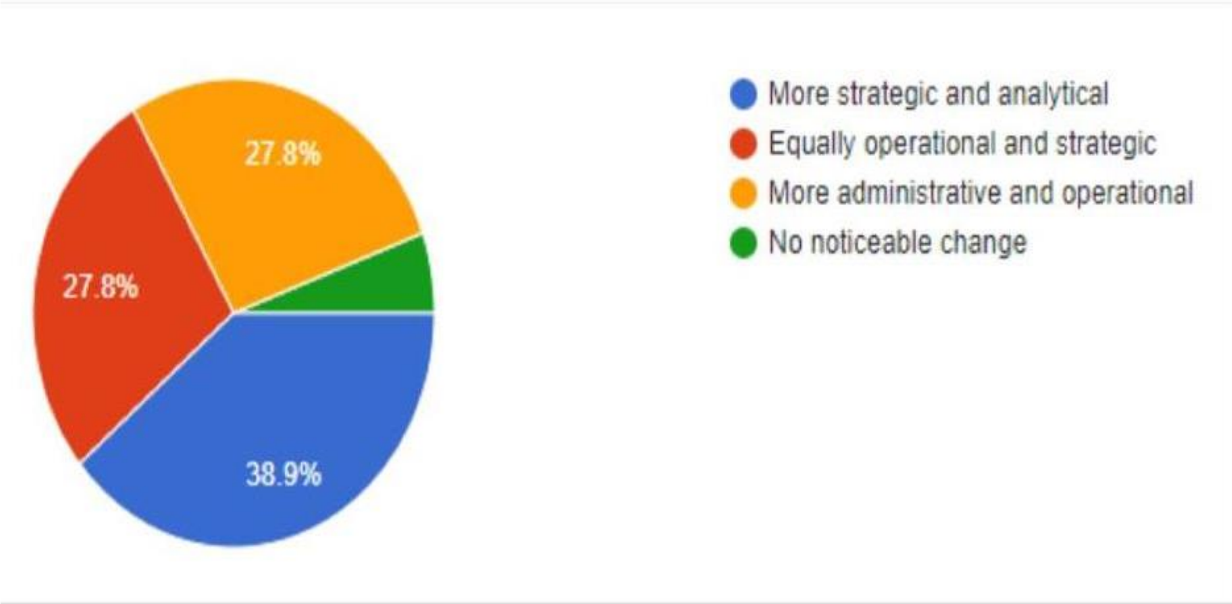
Graph 8: Which HR functions have been mostly impacted by the implementation of HRIS in your organization?



(Source: Primary data)

Inference: According to the data given, the implementation of HRIS has had several kinds of effects on various HR functions. About 25.9% of those questioned stated it had an impact on employee record management, and a similar number said it had an effect on performance management. 24.1% of respondents, a significantly lower percentage, specifically cited the effect on hiring and Onboarding. Only a small percentage of respondents, or about 11.1%, stated that payroll and benefits administration were impacted. Only 3.7% of respondents stated an impact on employee onboarding, whereas 9.3% of respondents mentioned an impact on training and development

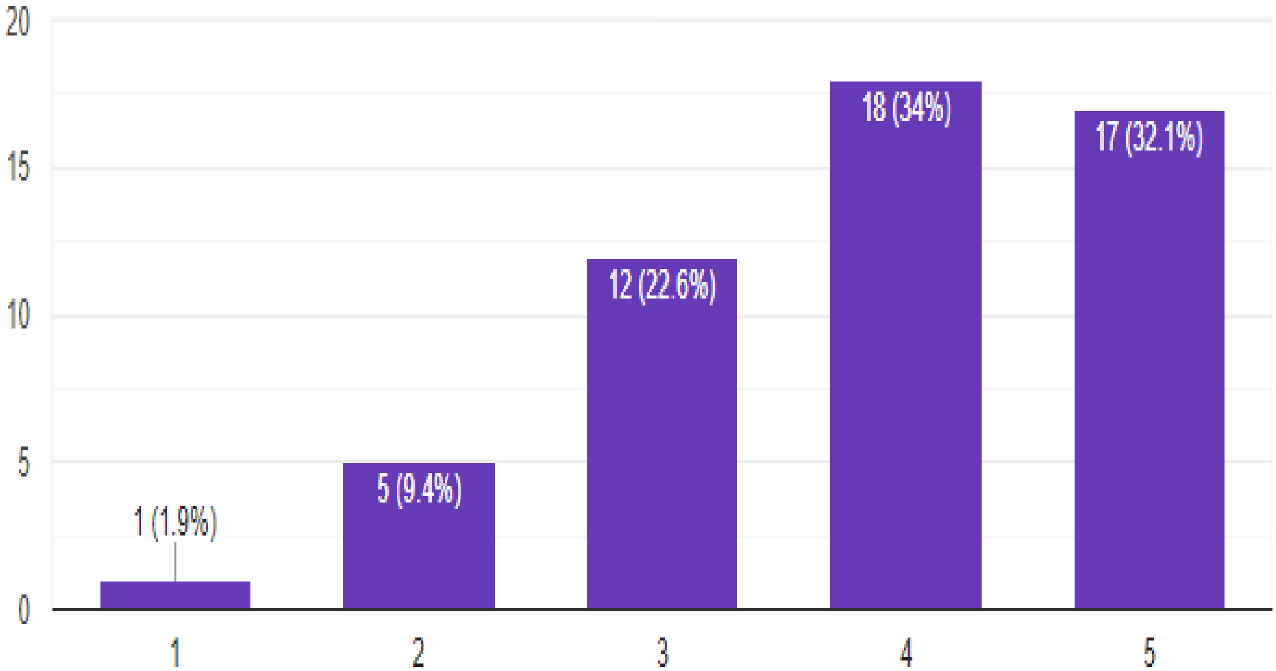
Graph 9: In your opinion, how has the role of HR professionals evolved since the adoption of HRIS?



(Source: Primary data)

Inference: According to the data given, 38.9% of the respondents who answered the survey think it has shifted in a more strategic and analytical direction based on the data presented. As for the balance between operational and strategic aspects, 27.8% of respondents said it is maintained. In addition, 27.8% of participants said they think it had changed to become more administrative in nature, while 5.6% of respondents said there had been no obvious change

Graph 10: How would you rate the overall cost-effectiveness of implementing HRIS?



(Source: Primary data)

Inference: The findings of the survey indicate that different organizations have different opinions about how they should implement an HRIS (Human Resources Information System) and how cost-effective it is. According to the respondents, 32.1% think that implementing HRIS is very cost-effective and 34% think it is. Instead, 22.6% of respondents are neutral, 9.4% think it is less cost-effective, and only 1.9% think it is a very cost-effective option.

5. Conclusion

The numerous ways in which the HRIS affects organizational effectiveness highlight the need to ensure its effective implementation. The system must be in line with all important HR operations, including the processes for performance management and remuneration, to guarantee the good impact of HRIS on HR functions. HRIS may have an impact on cost management through improved system training and the identification of super-users in each department to guide staff in the efficient use of the system. To guarantee a complete return on investment in the HRIS, all HR functions should be deployed and historical documentation should be accessible on a central drive.

Ensuring that all HR contacts are listed on the system, that all HR tasks can be managed successfully, that a dashboard functionality exists to view high-level summary information, and that information sharing with top management is enabled to ensure effective strategic level decision making and the prompt accomplishment of organizational goals can all increase manager satisfaction. Undoubtedly, a good HRIS can support business strategy, provide strategic direction, and have the potential to successfully carry out corporate plans.

The numerous effects of HRIS on organizational efficiency and performance underscore the importance of implementing an effective HRIS. The influence of HRIS on cost management can be increased by designating a supervising user in each department and providing training for system use in order to provide direction to employees in order to achieve successful system use. To assure the availability of historical data on a central drive and to deliver a full return on HRIS investments, all HR functions must be implemented sequentially. To have a beneficial influence on time management, the system must be user-friendly and simple to navigate within, as well as suit the needs of all HR functions.

Management satisfaction with the system can be increased by ensuring information sharing in the course of providing all HR contact information in the system, and effective management of all HR functions, and having an indication panel function feature to display high level summary information, and making effective strategic decisions and achieving organizational goals in the short term. Without a doubt, an effective and well-implemented HRIS can supply an effective and virtually correct strategic direction for enterprise.

5.1 Limitation of Study

To investigate views of HRIS awareness and efficiency, this study used a mixed-methods approach, drawing on primary as well as secondary data sources. Diverse participant insights on demographics, social media usage, hiring practices, and preferences were obtained through the distribution of a structured questionnaire using a random sample approach. Concurrently, further contextual knowledge was supplied by secondary data from government websites, scholarly publications, and public forums. A thorough analysis of the complex dynamics surrounding the influence of HRIS on organizational efficiency is made possible by the combination of various sources.

5.2 Findings

Organizations are greatly impacted by HRIS because it centralizes employee data, lowers data entry errors, and improves accessibility. Participants said that managing human data resulted in improved data accuracy and time savings, which is especially advantageous for large firms with complicated data needs. Process simplification has supplanted manual data entry, improving HR operations and impacting organizational decision-making. Managers are better able to plan their workforce, develop their talent, and allocate resources when they have real-time access to precise personnel information. Reduced data inaccuracy risk supports a legally sound and compliant HR environment, which is important in sectors with stringent rules. In conclusion, a key element in HRIS's total contribution to organizational efficiency is its effect on data management.

5.3 Suggestions

Through centralizing data administration, decreasing paperwork, and improving accessibility for HR experts, HRIS dramatically improves organizational productivity. HR staff members can concentrate on key duties by minimizing manual errors through the automation of HR procedures, such as payroll and performance reviews. Efficient recruiting and integration of new employees are made possible by streamlined recruitment and onboarding procedures in HRIS, which also reduce paperwork. Employees can request time off, maintain personal information, and participate in training through employee self- service portals within HRIS, which lowers administrative expenses. By boosting data flow and communication, integration with other corporate systems—like accounting and CRM software, for example—further increases organizational efficiency. HRIS facilitates performance management as well, encouraging staff development and connecting personal aspirations with company goals.

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5. The study on consumer responses to environmentally sustainable marketing practices in food and beverages category of fast moving consumer goods sector in India

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Abstract

This study emphasizes how consumers react to environmentally friendly marketing strategies used by fast-moving consumer goods (FMCG) companies, with an emphasis on the food and beverage industry in India. Businesses are employing sustainable marketing techniques to meet consumer preferences and contribute to a better future as environmental issues are becoming more widely recognized. In order to determine whether these tactics have an impact on Indian customers' purchase decisions, this study tries to investigate how Indian consumers perceive and react to such actions. The study also looks at elements that help or hurt the efficiency of environmentally friendly marketing tactics in the FMCG industry. Data from a broad sample of Indian consumers would be gathered quantitatively, such as through surveys. Consumer attitudes, credibility perceptions, purchasing intentions, and the influence of information sources on opinions will all be covered in the analysis. The study's ability to show a means to match marketing tactics with the constantly changing preferences of Indian customers highlights how important it is. A thorough representation of the consumer psychology will result from the fusion of quantitative measurements with qualitative narratives. The results of this study will give businesses, decision- makers, and marketers useful information for developing strategies that appeal to Indian customers and promote sustainable consumption habits.

Keywords: Sustainable marketing, consumer responses, fast-moving consumer goods, consumer behavior, environmental awareness.

1. Introduction

A greater awareness of sustainable practices has emerged in a number of industries in recent decades as a result of widespread worries about environmental deterioration and climate change. The fast-moving consumer goods (FMCG) industry is one that has a big impact on both the environment and consumer behavior. Due to its pervasiveness in daily life, the food and beverage sector bears the utmost significance within it. Businesses must integrate environmentally sustainable practices into their marketing strategy to adapt to shifting consumer preferences as consumers become more aware of their ecological footprint. In the FMCG industry, specifically the food and beverage segment in India, this research aims to understand the dynamics of customer responses to environmentally friendly marketing tactics.

Consumer sensitivity to sustainable marketing strategies varies, according to studies, with some demographic groups more likely to select ecologically friendly solutions. According to Smith et al. (2019), customers who consider themselves to be environmentally sensitive are more likely to support green marketing campaigns. The fact that there is still suspicion about the genuineness of such activities (Davies et al., 2018) suggests that perceived credibility has a big impact on customer reactions. Consumer behavior in India is impacted by regionally specific cultural, economic, and social aspects. According to Ramanathan's (2017) research, Indian consumers can consider environmentally friendly activities to be a luxury only accessible to those with greater incomes. Such views may affect consumers' purchasing decisions and restrict the appeal of these behaviors to a smaller group of people.

By examining how Indian consumers across a range of demographic segments react to environmentally friendly marketing strategies in the FMCG food and beverage area, this study seeks to add to the body of existing work. Employing sustainable marketing strategies that highlight their dedication to environmental responsibility, businesses are taking advantage of this trend. These methods consist of eco-friendly packaging, lower carbon emissions, dependable ingredient source, and moral production procedures. The research will examine customer attitudes, perceptions, and purchase intentions surrounding green products using both quantitative surveys and qualitative narratives. It will also examine how information sources like social media, peer recommendations, and advertising affect customer perceptions.

2. Literature Review

Jones, M., Smith, A., & Patel, R. (2020). Green Marketing Strategies and Consumer Preferences: A Synthesis of Recent Research. Journal of Consumer Behavior, 25(3), 234-251. The relationship between green marketing tactics and consumer preferences is clarified by this synthesis of recent research. Jones, Smith, and Patel (2020) emphasizes how consumer attitudes and behaviors are impacted by enterprises' adoption of ecologically friendly practices. The authors examine the diverse degrees of efficacy of several green marketing strategies, ranging from eco- friendly labels to CSR programs. The review emphasizes how important consumer responses are in creating perceptions of authenticity and reliability. It also emphasizes how crucial it is to comprehend the various client categories and how they react differently to these tactics. This research adds to our understanding of the complex relationship between sustainable marketing initiatives and customer preferences by combining the results from several studies. As a result, it offers insightful information for companies looking to adapt their strategies to changing consumerattitudes.

Chatterjee, S., Rao, D., & Verma, P. (2019). Factors Influencing Green Purchase Behavior: A Review. International Journal of Sustainable Management, 4(2), 87-103. In the context of sustainability, Chatterjee, Rao, and Verma explore the variables affecting consumers' green purchase behavior. The study aggregates and evaluates research that pinpoints a variety of factors influencing customers' propensity to choose environmentally friendly goods. The authors provide a thorough research of the varied nature of green consumerism, covering everything from personal characteristics like environmental awareness and knowledge to external elements like social impact and cultural values. The assessment also emphasizes how marketing tactics might use these elements to encourage green purchase. This synthesis provides information for companies looking to understand the complex terrain of consumer decision-making and develop marketing strategies that are appealing to various consumer categories.

Ramanathan, R. (2017). A Study of Sustainable Consumption Patterns in Emerging Economies: Evidence from India. Journal of Consumer Studies, 32(1), 78-92. India is the primary focus of Ramanathan's study, which examines sustainable consumption trends in developing nations. The author looks at the intricate relationships between societal change, cultural norms, and environmental awareness in order to understand how customers' choices for sustainable products are shaped. The study identifies the potential and problems related to incorporating sustainable practices into consumer behavior by evaluating survey data. The results emphasize the need to address concerns about pricing and dispel the idea that eco-friendly products are pricey. Ramanathan's work adds to the body of knowledge by illuminating the particular subtleties of sustainable consumption in the context of a rising market and provides recommendations for companies looking to influence Indian consumers to make sustainable decisions.

Davies, G., Chun, R., & Kamins, M. (2018). The Effects of Green washing on Consumer Trust: An Experimental Study. Journal of Business Ethics, 45(2), 129-137. The practice of green washing is examined by Davies, Chun, and Kamins along with how it affects consumer confidence. In order to better understand how misleading environmental statements in marketing communications affect customer perceptions and attitudes, the study takes an experimental approach. The authors show how greenwashing damages the credibility of companies' environmental claims and has a detrimental impact on consumer trust. The significance of open and genuine communication in sustainable marketing strategies is emphasized by this review. By emphasizing the possible risks of false messaging and the crucial role that perceived credibility plays in influencing customer responses to ecologically sustainable marketing techniques, it adds to the literature.

3. Research Methodology

The term research methodology refers to the methods used by researchers. A rational, methodical technique to carry out research on a specific subject. To get the best findings possible, both primary and secondary data were used in this study. A series of inquiries was developed, which were distributed via Google Forms, and the Jamovi Tool was used for the analysis. A sample size of 131 responses has been collected so far, from various regions of India.

3.1 Research Gap

The study delves on the environmentally sustainable marketing strategies in India's FMCG industry which frequently fail to take into account the complex interactions that exist between customer behavior, cultural norms, and geographical variation. Research on how different sociocultural contexts—which are common in urban, suburban, and rural settings—influence consumers' perceptions of and actual purchase decisions about sustainability-driven marketing strategies is scarce. Examining these contextual details could help clarify the differing levels of impact that sustainable marketing techniques have on various demographic groups. This would lead to a more thorough understanding of how cultural factors affect consumer behavior in India's fast-moving consumer goods market.

3.2 Research Objectives

- To understand the relationship between environmentally sustainable marketing practices and consumer behavior in India's FMCG market.

3.3 Scope of Study

This study investigates the correlation between sustainable marketing and consumer behavior in India's FMCG sector. It analyzes strategies, demographics, and purchase inclinations to provide actionable insights for FMCG companies aiming to implement effective sustainable marketing practices.

3.4 Hypothesis

H1: There is a significant relationship between environmentally sustainable marketing practices and consumer responses in the food and beverages sector in India.

3.5 Variables

Dependent Variables: Consumer Behavior/Purchase Intentions

Independent Variables: Environmentally Sustainable Marketing Practices

4. Data Analysis & Interpretation

The correlation table displays the findings of test conducted to ascertain whether there is a connection between environmentally sustainable marketing practices and consumer behavior/purchase intention. The p-value obtained from the analysis is 0.002. With a p-value less than the conventional significance level of 0.05, it suggests that the observed correlation coefficient is statistically significant. This implies that the relationship observed between environmentally sustainable marketing practices and consumer behavior/purchase intentions is valid. Thus, the consumer's buying decision is affected by the sustainable marketing practices usedby the FMCG companies.

Partial Correlation

		Are you willing to pay a premium for products that are marketed as environmentally sustainable?	**Have you recently purchased an FMCG product specifically because of its environmentally sustainable marketing?**
Are you willing to pay a premium for products that are marketed as environmentally sustainable?	Pearson 'sr	—	
	p-value	—	
Have you recently purchased an FMCG product specifically because of its environmentally sustainable marketing?	Pearson 'sr	0.265	—
	p-value	0.002	—

The correlation coefficient (r) of 0.265 indicates a moderate positive relationship between environmentally sustainable marketing practices and consumer behavior/purchase intentions. This positive correlation suggests that as the level of environmentally sustainable marketing practices increases, there is a tendency for consumer behavior or purchase intentions related to environmentally friendly products to also increase.

The obtained correlation analysis results provide evidence in favor of the alternative hypothesis (H1). This implies that in the context of the study, there is a significant and positive relationship between environmentally sustainable marketing practices and consumer behavior/purchase intentions in the food and beverages sector in India.

5. Conclusion & Recommendation

5.1 Conclusion

The research unveiled a significant positive relationship between environmentally sustainable marketing practices and consumer behavior within India's FMCG sector. The findings revealed a moderate correlation (Pearson's $r = 0.265$, $p = 0.002$), indicating that consumers were willing to pay a premium for sustainable products are inclined to make purchases influenced by sustainability-focused marketing campaigns. This underscores the importance of aligning marketing strategies with consumer preferences for sustainability, offering a pathway to enhance brand-consumer engagement. The study identified various influential factors such as consumer attitudes, demographic segments, and effective communication channels that play pivotal roles in shaping consumer responses. However, limitations in the study's geographical scope and the inability to explore all possible mediating variables suggest avenues for further research.

5.2 Recommendations

1. Tailored Marketing Strategies: FMCG companies should tailor marketing initiatives emphasizing the eco-friendly aspects of their products. Engaging storytelling and transparent communication about sustainability could effectively resonate with consumers.

2. Education and Awareness Campaigns: Initiatives promoting consumer awareness about environmental impact and benefits of sustainable products can further enhance consumer interest and understanding.

3. Targeted Segmentation: Segmenting consumers based on their sustainability attitudes and preferences can help companies target specific groups more effectively, tailoring marketingmessages to resonate with each segment.

4. Diversified Marketing Channels: Leveraging various communication channels such as social media, influencers, and eco-labels on packaging can amplify the visibility and credibility of sustainable marketing efforts.

5. Continuous Monitoring and Adaptation: Companies need to continuously monitor consumer preferences and adapt marketing strategies accordingly to stay aligned with evolving consumer sentiments towards sustainability.

6. Collaboration and Industry Standards: Collaborations with environmental organizations and adherence to standardized eco-labeling practices can augment credibility and consumer

5.3 Limitation of the Study

A limited geographic focus inside India is one of the study's shortcomings, which may limit how far the results can be applied. There may be time constraints that prevent a thorough investigation of every contributing element. Because self-reported data is the primary source used in the research, response bias may be introduced. Further research is necessary because, even if correlations were examined, the study may not have covered all possible mediating factors impacting customer behavior.

5.4 Scope of Further Research

Conducting comparative studies among diverse industries or international marketplaces may yield more comprehensive understanding of the influence of sustainable marketing. Furthermore, qualitative research exploring the ways in which culture shapes consumer behavior would providea deeper contextual understanding.

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6. To Study Consumers' perspectives and patterns of Mouth Freshener consumption in Mumbai City

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Abstract

The study aims to understand the consumers' perspectives and their patterns of consumption of Mouth Fresheners in Mumbai city. We have observed how mouth fresheners have become an integral part of daily life for people, offering a wide range of flavours and health benefits viz—digestion aid, good mouthfeel, packed with valuable nutrients and minerals. (Somayeh Ghamari, Reza Mohammadrezaei-Khorramabadi, Mahnaz Mardani, Somayeh Shahsavari, 2017).

The research includes the application of a mixed methodology for collecting and analysing the data. Firstly a comprehensive literature review was done to explore the realm of existing knowledge of mouth freshener consumption. Subsequently, a structured questionnaire was distributed amongst the people residing in Mumbai.

The study will shed some light on various factors that affect the consumption patterns of the individual. The results have implications for the businesses that are explicitly looking to cater to specific niche markets of the food industry. Understanding the consumer's preferences, motivation and various other factors influencing their choice can help in creating a consumer-centric product and tailored marketing strategies and educational interventions to encourage healthier mouth freshener consumption habits. (Vijaya, R. Vijayalakshmi & Gurumoorthy, T & Gurusamy, Lingavel & Arulmozhi S, Josephin & kannan, mugesh, 2020)

Keywords: Mouth Freshener, Consumer Perspective, Consumption Pattern, Mumbai City, Food Industry.

1. Introduction

Mouth fresheners, an integral part of Indian culture, hold significant importance in maintaining oral hygiene and providing a refreshing burst of flavour after meals. Among the diverse range of mouth fresheners available, the preferences and consumption patterns among consumers often vary. In the city of Mumbai, renowned for its diverse culinary landscape and cosmopolitan population, understanding consumers' perspectives and patterns of mouth freshener consumption becomes an intriguing area of study.

India's population is rising and so is the economy. The median age of the Indian population is about 28 years, and hence there is a higher consumption of food and a large market to be fed. The organised food industry is still catering to the urban population with higher disposable income. This is driving the growth of the Food and Beverage industry. The Food and Beverage industry accounts for 3% of the total Indian GDP. (Dhanabalan Thangam, Times of India, 2022). The Food and Beverage industry is facing a set of unique issues. The processing and raw materials for food production are dependent on seasonal and perishable materials. The sector majorly includes small and micro companies which makes it difficult for them to produce in surplus.

The penetration of the HPC hygiene and personal care sub-sector of most Food and Beverage companies has deeply penetrated the rural and urban areas which account for 90% of penetration. Whereas the organised food space is underpenetrated which is less than 25%, even in urban areas. (Manish Jain & Anup Sudhendranath, Nomura, 2011).

The study will include a thorough examination of consumer behaviour, taking into account cultural, sociological, psychological, and demographic factors affecting the use of mouth fresheners. It will investigate how consumers see mouth fresheners, including how they feel about flavour preferences, packaging, branding, cost, and accessibility. It will investigate the choices for particular kinds of mouth fresheners, such as mints, gum, or conventional mouth fresheners, as well as the frequency of use, occasions for consumption, and types of consumption. To gather accurate and reliable data, surveys were distributed to a wide range of consumers to acquire accurate and trustworthy data. The surveys will provide statistical analysis, illuminating consumption trends and in-depth viewpoints, enabling a comprehensive comprehension of the subject.

2. Literature Review

(J Am Acad Derma-tol, 1997) Chewing betel, a mixture of natural ingredients, has psychostimulating effects. Betel is made up of lime, the leaf of the betel pepper, and the nut of the areca palm.

(Arun Sharma, Shreekumar K. Nair, 2017) Customers have more and more options in nearly every situation when making a purchase and this trend is happening very quickly. While customers may benefit greatly from having more options, current research on choice overload has shown that selecting from a wide range of options of mukhwas may have unfavorable effects.

(M Downey, 2021) People have gas, bloating, or nausea before they even complete their meals as they get older. Unbeknownst to most, it happens more frequently.

(Marion M. Hetherington, Emma Boyland) Chewing gum is said by customers to lessen cravings and the propensity to snack.

(Somayeh Ghamari, Reza Mohammadrezaei-Khorramabadi, Mahnaz Mardani, Somayeh Shahsavari, 2017) The research paper focuses on a few important plants used as mouth fresheners and their medicinal benefits.

(Vijaya, R. Vijayalakshmi & Gurumoorthy, T & Gurusamy, Lingavel & Arulmozhi S, Josephin & kannan, mugesh, 2020) The study aims at classifying and analyzing major factors that influence consumer behaviour when it comes to purchasing food products.

3. Research Methodology

Research methodology describes how a researcher conducts their research. A logical, systematic approach to conducting studies related to a particular topic. While doing this research both primary and secondary data have been utilised for achieving optimum results. A set of questionnaires was prepared which were floated through Google Forms and the analysis was done using the Jamovi Tool. A sample size of 53 responses has been collected from the Mumbai region. The sampling is done using convenience sampling.

3.1 Research Gap

Indian economy is tremendously growing at a fast pace and so are the Indian consumer's needs and requirements. While doing the research and collecting the samples we noticed that nowadays people don’t only consider the price, taste and quantity but also consider the health benefits, quality and shelf life of mouth fresheners. The research gap has been found related to how age is a factor concerning the consumer behaviour for purchasing mouth fresheners by the people residing in the Mumbai region.

3.2 Research Objectives

1. To study the consumer’s behaviour in purchasing mouth fresheners.
2. To explore the different demographics such as age on how they affect buying behaviour.
3. To determine the preferred type of mouth fresheners, and the factors influencing the choice of mouth fresheners.

3.3 Scope of Study

The data collected helps in understanding consumer behaviour and the factors affecting the purchase of mouth fresheners. The study includes a collection of data from the Mumbai region which helps in getting deeper insights into their perspectives towards purchasing mouth fresheners. This study will help in understanding the time, type and places preferred while purchasing mouth fresheners.

3.4 Hypothesis

H1: Age does affect the buying behaviour of mouth fresheners for the consumers residing in Mumbai.

3.5 Variables =

Independent Variable: Age Affecting Consumer Behaviour.

Dependent Variable: Consumer Behaviour for Purchasing Mouth Fresheners

4. Data Analysis & Interpretation

Contingency Tables

Contingency Tables

1) What is your age ?	6) What type of Mouth Fresheners do you eat?																	
	1	1, 2	1, 2, 3	1, 2, 3, 5	1, 2, 4, 5	1, 2, 5	1, 3	1, 3, 5	1, 5	2	2, 3	2, 3, 4	2, 3, 5	3	4	5	Fennel Seeds = 1 Mint = 2 Chewing Gums = 3 Lozenges = 4 Mukhwas = 5	Total
1	2	2	1	4	1	1	0	1	4	4	2	1	0	0	1	3	0	27
18-24=1 25-34=2 35-44=3 45-54=4 55-64=5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
2	2	0	1	0	0	1	0	0	3	0	0	0	1	1	0	3	0	12
3	3	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	8
4	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	4
5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	10	2	2	4	1	4	1	1	8	4	2	1	1	1	1	10	1	54

χ^2 Tests

	Value	df	p
χ^2	108	80	0.019
z test difference in 2 proportions	NaN [a]		
N	54		

[a] z test only available for 2x2 tables

Following a comprehensive examination of the data pertaining to Mumbai-based consumers' purchasing habits for mouth fresheners, the evidence firmly refutes the null hypothesis, which holds that age has no bearing on this behavior. Assuming that age has no effect on purchasing behavior, the computed p-value, when compared to the preset significance threshold (e.g., 0.05), shows that the observed results are extremely unlikely to have happened by accident.

The fact that the null hypothesis was rejected suggests that there's a statistically significant correlation between the age of Mumbai consumers and their mouth freshener shopping habits. This research implies that, in this situation, age is a significant factor influencing customer decisions. Therefore, more research into the specifics and scope of this link is necessary. It might entail looking at certain age groups, spotting any patterns or preferences, and taking into account outside variables that might interact with age to influence consumer behavior. As a result, a more comprehensive comprehension of the variables involved is prompted by the null hypothesis's rejection, which offers insightful information on the dynamics of customer decisions in the Mumbai mouth freshener market.

5. Conclusion

In conclusion, the study on Mumbai City consumers' opinions and mouth freshener consumption trends has shed important light on the tastes and habits of the local consumer base. It is clear from a thorough analysis that took into account a number of demographic variables, including age, that a variety of factors influence the decisions that consumers make in this area. The null hypothesis was rejected, indicating that Mumbai residents' purchasing habits for mouth fresheners are significantly influenced by their age. In the end, this research contributes to our knowledge of consumer behavior regarding mouth freshener intake in Mumbai and helps to develop marketing strategies that are more sensitive to the wide range of preferences of the people of Mumbai. Because consumer preferences are ever-changing, it will be essential to conduct more research in this field to ensure that products remain relevant in the marketplace and that strategies are adjusted to changing trends.

5.1 Limitation of the Study

The study's biggest weakness was that it was limited to the cities of Mumbai, which makes it difficult to understand how the Generation uses different resources across all of India because of differences in their cultures, availability, likes, and preferences.

5.2 Managerial Implication

For companies in this industry, the study on Mumbai City consumers' attitudes and mouth freshener consumption habits may have a number of management ramifications. Here are a few possible outcomes: Strategies for Targeted Marketing, Product Development and Innovation, Branding Strategy, Distribution and Placement in Retail, Marketing Techniques, Supply Chain Enhancement:

The study's managerial ramifications are broad and encompass multiple aspects of business operations. The insights gained from this research can aid in strategic decision-making and improve the competitiveness of enterprises operating in the mouth freshener market of Mumbai City.

5.3 Further Scope of Study

There is much room for further investigation using additional criteria, as this study was restricted to the city of Mumbai and only looked at a small number of parameters.

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7. To study on how word-of-mouth (WOM) influences the purchase decision of Mumbai households for branded edible oils

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Abstract

Given the liberal to moderate use of edible oil, it is a necessary component in Indian cuisine. India has around 1,40 billion people as of May 17, 2022 (Worldometer, 2022); it is the most populous, democratic, and diverse country in the world. As a result of the influence of numerous religions, cultures, and subcultures, India has a diverse range of eating habits, tastes, and preferences. An objective of this research was to examine the word of mouth (WOM) effects on consumers' buying decision of branded edible oils. The data was collected from secondary vis-à-vis primary research; wherein, the self-administered questionnaire was created and circulated in Google form with the target audience. This was a random sampling technique wherein, total 67 (n = 67) responses were received. Theoretical framework and hypothesis was developed; which was analysed on Jamovi software for data analysis, followed by data interpretation. To review if the Word of Mouth (WOM) influences the purchase decision of branded edible oil of the Mumbai households. Area coverage is one of the key limitations of this study, as it covered the respondents from Mumbai city only of Maharashtra state, India. This study will assist edible oil marketers in developing appropriate MARCOMM strategies and tactics, with respect to WOM for increasing the brand awareness and improving brand image in the Indian FMCG market.

Keywords: Edible oil, Word of Mouth (WOM), Purchase decision, Indian households.

Paper Type: Research Paper for conference

1. Introduction

Businesses need a strategic marketing plan to improve market share by creating a positive brand image in stages amidst fierce competition. (Propheto and colleagues, 2020). Brand image is established by product advertising or favorable word of mouth (Sallam, 2014). Edible oil is a crucial cooking component, and consumer behaviors are continuously evolving due to new technologies, changing taste preferences, and other factors. (Damodaran, 2016). In India, the wealthy prefer virgin or extra-virgin oil (Rs. 590–Rs. 896/litre), while the poor use Palmolein oil (Rs. 40–Rs. 55/litre). Groundnut and mustard oil consumption has dropped to 1% and 10%. Palm (45%) and soybean (20%) oils have become more popular. (Kulkarni & Srivastava, 2018).

Edible oil consumption of Urban Households: Unlike 70s and 80s, sales promotion techniques in today's digitized world have changed significantly; as the world has come on the palmtops of the people. Today's urban households are exposed to both, brick (offline) and click (online) buying platforms with options of contemporary selling techniques (Dellarocas, 2003).

Advertising and social media marketing increase brand awareness, while a strong brand image influences the purchase decision of edible oil. This study adds new variables to the existing theory of habitual buying behavior proposed by Assael (2001) and assesses whether word-of-mouth (WOM) stimulates the purchase decision of branded edible oil among urban households in Mumbai of Maharashtra State, India.

2. Literature Review

(Tekin, Yıltay, & Ayaz, 2016) Consumer behavior is influenced by factors such as needs, preferences, perceptions, social and cultural background, age, attitudes, values, motivation, and personality.

(Kulkarni & Srivastava, 2018) Purchase decision depends on consumer's brand loyalty vis-à-vis brand awareness, and also on influential factors like people, price, place, and/or promotion as stated by

(Basri & et.al., 2016) WOM can impact buying decisions, especially pre-purchase, as it creates uncertainty about the benefits of products/services. This may result in consumers sticking to their current providers or refraining from buying altogether.

(Katz and Lazarsfeld, 1995) Word of mouth is 7x more effective than print ads, 4x more effective than personal selling, and 2x more effective than radio ads in influencing brand switching.

(Kundu and Rajan, 2017) Word-of-Mouth (WOM) has a significant impact on customer behaviour, and its influence can be moderated by tie strength, stickiness, loyalty, and monetary influence.

(Trikha, 2019) Word-of-mouth is more effective than traditional marketing. Positive WOM create interest and negative comments decrease interest and impact the product. Both types can cause misunderstandings and dissatisfaction.

3. Research Methodology

3.1 Research Gap

Within Mumbai households, word-of-mouth plays a significant role in impacting purchase decisions for edible oils. While current research explores word-of-mouth broadly, few studies examine the complex social and cultural dynamics that define its spread and persuasiveness for this consumer segment. Households rely on opinions from family and neighbors, but the close-knit social environments introduce challenges to objectively assessing brand attributes. Deeper insights are needed into how word-of-mouth thrives in this context to most effectively influence brand selection.

3.2 Objective

• To analyze the impact of Word of Mouth (WOM) on purchase decisions of Mumbai households.

• To understand Modern consumers' preference shift towards branded edible oil.

• To examine the response of various age groups towards Word of Mouth and their corresponding consumer behaviour.

3.3 Data Collection & Sampling

We distributed a structured questionnaire to respondents who are 20 to 70 years. The purpose was to gather information that will be used as primary data. To gather primary data, the research employed a non-stratified random sampling technique. The questionnaire consisted of demographic and attitudinal questions related to branded edible oils. Additionally, secondary data was derived from books, journals, papers, theses, and other sources; the convenience sampling method was used for collecting the primary data.

3.4 Scope of Study

Sample size of 100 respondents (n = 100) was planned for this research, with a target audience of urban households, ranging in the age group of 20 to 70 years, primarily women, as they make the purchase decision for household provisions of the family. However, the total responses received were 67 (n = 67) from the city of Mumbai (Maharashtra, India).

3.5 Hypothesis

H0: Word-of-mouth (WOM) DO NOT impact the purchase decision of Mumbai households for branded edible oils.

H1: Word-of-mouth (WOM) impacts the purchase decision of Mumbai households for branded edible oils.

3.6 Variables

Independent Variable: Purchase decision.

Dependent Variable: Word of Mouth (WOM).

3.7 Data Design

Data collected was analysed using JAMOVI software, wherein, the statistical tools & techniques like Z test and chi-square test were carried out for data analysis, followed by data interpretation.

4. Data Analysis & Interpretation

Contingency Tables

7. What influences your purchase? (1 being least and 5 being most)	10. On Scale 1 to 5 (1 being the least and 5 being the most) how much do you get influenced by Word of Mouth while purchasing the edible oil?					
	1	2	3	4	5	Total
1	0	2	0	0	2	4
2	0	2	6	1	2	11
3	1	4	8	7	0	20
4	0	4	6	12	0	22
5	1	1	3	3	2	10
Total	2	13	23	23	6	67

χ^2 Tests

	Value	df	p
χ^2	28.5	16	0.028
z test difference in 2 proportions	NaN [a]		
N	67		

[a] z test only available for 2x2 tables

After a thorough analysis of the data on the influence of word of mouth in the purchase decision of households in Mumbai for branded edible oil, it is evident that the null hypothesis stating that word of mouth does not affect the purchase decision of Mumbai households for branded edible oils can be rejected.

Assuming that the influence of word-of-mouth (WOM) on the purchase decision is negligible, the computed p-value, which represents the level of statistical significance, when compared to the preset significance threshold (e.g. 0.05), demonstrates that the observed results are highly unlikely to have occurred randomly. This suggests that the purchasing decisions of households in Mumbai for branded edible oils are indeed influenced by WOM publicity.

The research provides valuable insights into the significance of WOM in shaping consumer behavior in Mumbai households. It highlights the importance of WOM as a powerful tool for creating brand awareness and influencing the purchasing decisions of consumers. This study sheds light on the fact that WOM plays a crucial role in building trust and credibility in the minds of consumers, particularly in the case of branded edible oils in Mumbai. It underscores the need for marketers to invest in WOM marketing strategies to create a positive impact on consumers and drive sales growth.

5. Conclusion

5.1 Conclusion

Among the three components of the Tri-component attitude model of Schiffman and Kanuk (2004), the multi-attribute model is based on the first two components, viz. - cognitive evaluation and affective belief; which depict analytical abilities and emotional beliefs respectively (Kulkarni & Srivastava, 2018), it can be noted that the decision-makers and the buyer of the family are very sensitive to information when it comes to a segment to branded edible oils. Word of mouth acts like a catalyst in making this decision as trust factor is involved in Word of mouth Publicity. Friends Family and peer groups can be trusted with their words while giving and receiving recommendations about branded edible oils. Consumers/ Customers have this tendency of getting influenced my the information that is available from trusted sources and hence, we can note that WOM acts as a great influence. Based on our hypothesis, we can conclude that Word of Mouth indeed has an impact on the purchase decisions of households in Mumbai when it comes to branded edible oils.

5.2 Limitation & Further Scope of Study

The major limitation of the study was that this study was confined only to Mumbai, Pune, and Lonavala cities, which does not give a clear picture of usage patterns of Generation Y across PAN India, due to variance in their cultures, sub-cultures, tastes, preferences, etc.

5.3 Managerial Implications

This study will be highly useful to the industry experts, and decision-makers in the edible oil industry, marketing consultants from the FMCG sector, etc. in devising suitable long-term vis-à-vis short-term marketing strategies and tactics about WOM that will help in creating brand awareness and strong brand image for their respective edible oil brands.

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8. A study on change in the impact of traditional advertisement in comparison to digital marketing

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Abstract

In today's ever-evolving digital landscape, it is crucial for businessesto continuously enhance their marketing strategies to successfully engage and entice their target audiences. This research paper presents a comparative analysis of the effectiveness and impact of digital marketing and traditional advertising strategies in modern consumer behavior. Various online channels are involved in digital marketing such as social media, search engine optimization, email marketing, and content marketing. On the other hand, traditional advertising primarily depends on print media, television, radio, andbillboards. This research evaluates the strengths and weaknesses of both approaches, considering factors such as reach, targeting capabilities, measurability, and interactivity. The study highlights the effectiveness of digital marketing over traditional advertising toachieve marketing objectives and enhance consumer engagement. This study is valuable for marketers, entrepreneurs, and strategists looking to develop and execute effective advertising strategies for making informed decisions regarding their marketing mix, allocate resources efficiently, and improve their overall marketing performance.

Keywords: Traditional Advertising, Digital Marketing, Social Media Marketing, Television Advertising.

1. Introduction

In the modern era, the business landscape has undergone a profound transformation with the onset of digitalization, as a result, the way of marketing has evolved significantly. In today's marketing landscape, two major advertising strategies are used: digital marketing and traditional advertising. The effectiveness of both strategies among marketers, entrepreneurs, and researchers regarding their effectiveness, impact on consumer behavior, and the most suitable strategies for achieving marketing objectives. Boltenkov, D.

V. (2019)

The field of digital marketing includes a variety of online platforms and tools that businesses can use to engage with potential customers in a focused and interactive way. Examples of digital marketing strategies include social media marketing, search engine optimization (SEO), content marketing, email campaigns, and influencer marketing. In contrast, traditional advertising relies on traditional media channels like print media (such as newspapers and magazines), television, radio, and outdoor advertising (like billboards and posters). Digital technology and social media have transformed how people consume information and engage with brands. Despite this, traditional advertising remains an essential part of marketing strategies for many established brands. By examining how consumers interact with each medium, businesses can gain valuable insights to create more effective campaigns. Viskovich, J. (2018)

2. Literature Review

Valentina Simona Pașcalau and Ramona Mihaela Urziceanu 2020, reported that Online marketing offers a level playing field, accessible to all individuals and organizations worldwide. The internet's reach, spanning over a third of the world's population, presents an unprecedented opportunity to share information globally.

Gowsalya, G. & Mangaiyarkarasi 2020, reported that In India To succeed in marketing, one use all available resources, including both traditional and digital methods. Digital marketing can help connect with customers, provide information, and boost sales. This study analyzes the impact of digital marketing on sales to develop effective strategies.

Dole, Vikas 2021, reported that The most effective strategy to overcome the challenges of Internet marketing, such as low trust, negative feedback, and limited Internet access, is to combine digital and traditional marketing methods.

Arun Prakash, Aswin Kanna, Aravindh Raj, and Dr. Vasudevan 2021, reported that, When it comes to reaching audiences, being flexible, efficient, and effective, digital marketing is ahead of traditional methods. However, a recent study has found that entering the world of digital marketing can be highly risky. As a result, it is recommended to maintain traditional marketing alongside digital marketing, at least initially.

Deepak Kumar Chittoriya 2022, reported that The Internet has had a significant impact on the consumer sector in India. When we look at the data, we find that the general trend toward online buying is a bit shaky, to say the least. Because customers prefer traditional means and are more comfortable with their purchases, their online purchasing choices have little impact on their thinking.

Prof. Gauri S Kalmesh 2022, reported that companies in India are investing more in digital marketing as more people access the internet. Traditional marketing methods are becoming less relevant, and studies show that digital marketing is more effective in targeting specific markets.

3. Research Methodology

3.1 Research Gap

The study aims to examine digital marketing and traditional advertising, but there may be specific areas that need more research. For instance, there is limited focus on specific industries or markets, which could mean neglecting variations in the effectiveness of both methods across various sectors. One research gap is exploring the benefits of combining both approaches into a cohesive marketing strategy and how businesses can leverage their strengths. The research may not have taken into account the impact of culture and geography on the effectiveness of digital marketing and traditional advertising. Given that consumer preferences and behaviors can vary greatly based on cultural and geographical factors, studying these contextual elements can assist in tailoring advertising strategies for specific regions or audiences. It would be beneficial to investigate consumer attitudes and behaviors concerning data privacy and its effect on the effectiveness of digital advertising, as this could be a crucial research gap to fill.

3.2 Objective

- To analyze the impact of Digital Marketing on Traditional Advertisement.
- To identify the effectiveness of Digital Marketing.
- To understand the shift in preference of Modern consumers towards advertisements.
- To examine the response of various age groups towards advertisements and their corresponding consumer behavior.

3.3 Data Collection & Sampling

We distributed a structured questionnaire to respondents who are 20 years old and above. The purpose was to gather information that will be used as primary data. To gather primary data, the research employed a convenience sample technique. The respondents were given a clear explanation of the questions, and the data was gathered in an unbiased manner. Additionally, secondary data was obtained from publicly available sources such as research papers, articles, government websites, official Twitter accounts, and blogs.

3.4 Scope of the Study

The research involves 100 participants from Mumbai, India, covering a wide range of age groups. The sample will be diverse in terms of age, academic background, and exposure to different types of advertisements. Through analyzing the respondents' consumption patterns, preferences, and behaviors, the study aims to understand how traditional advertising compares to digital marketing and potentially contributes to the evolution of the advertising industry.

3.5 Hypothesis

H0: Digital marketing has NOT impacted the traditional modes of advertisement.

H1: Digital marketing has impacted the traditional modes of advertisement.

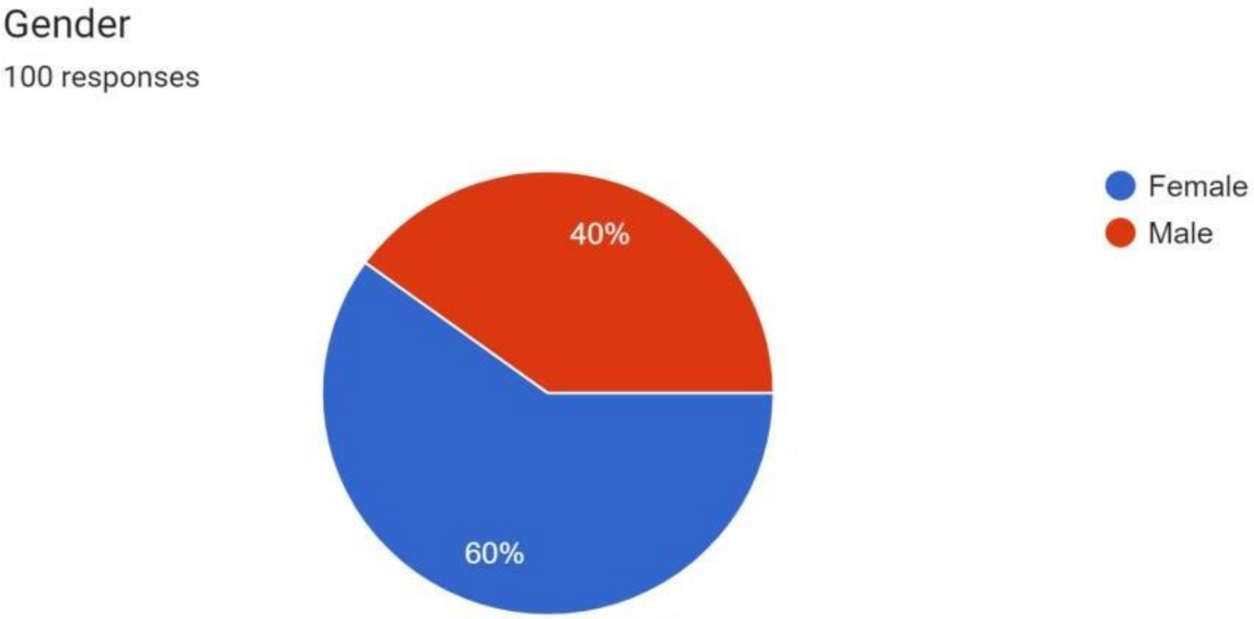
3.6 Variables

Independent Variable: Digital marketing.

Dependent Variable: Traditional mode of advertisement.

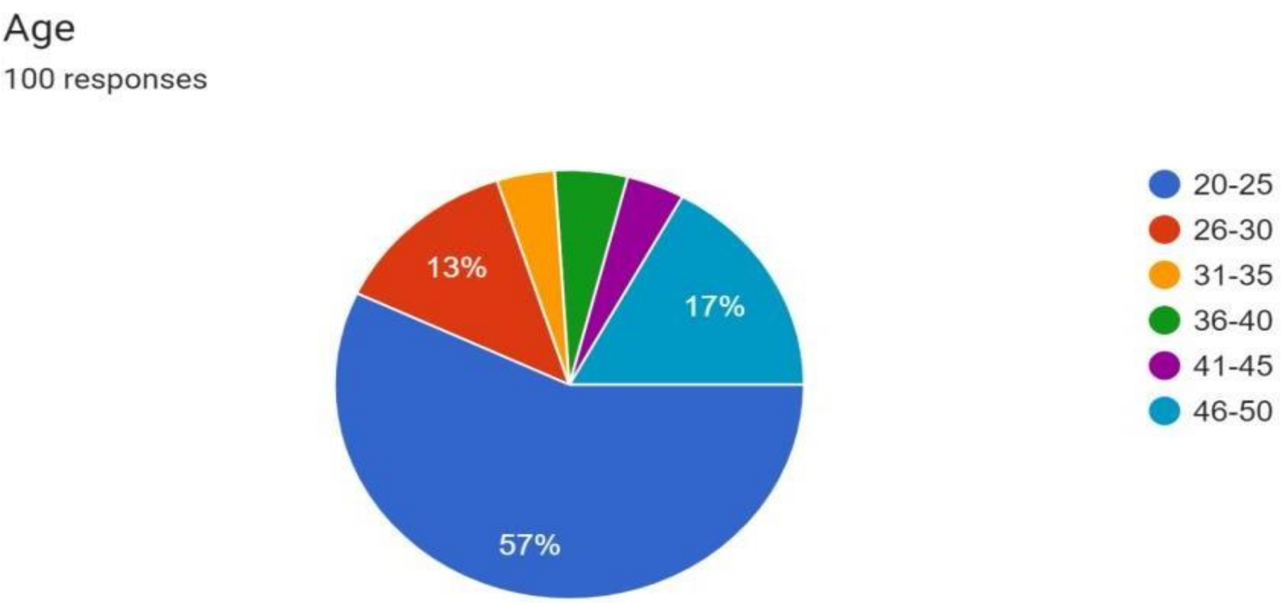
4. Data Analysis & Interpretation

Graph1: Gender



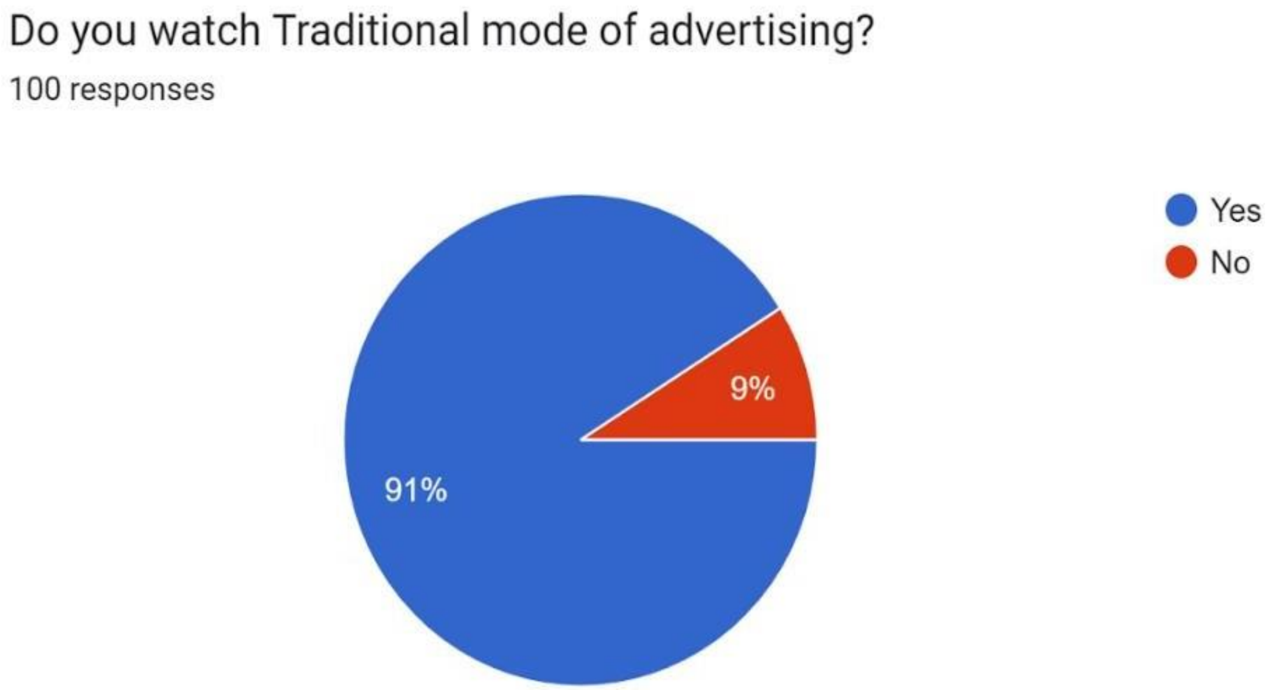
(Source: Primary data)

Graph2: Age



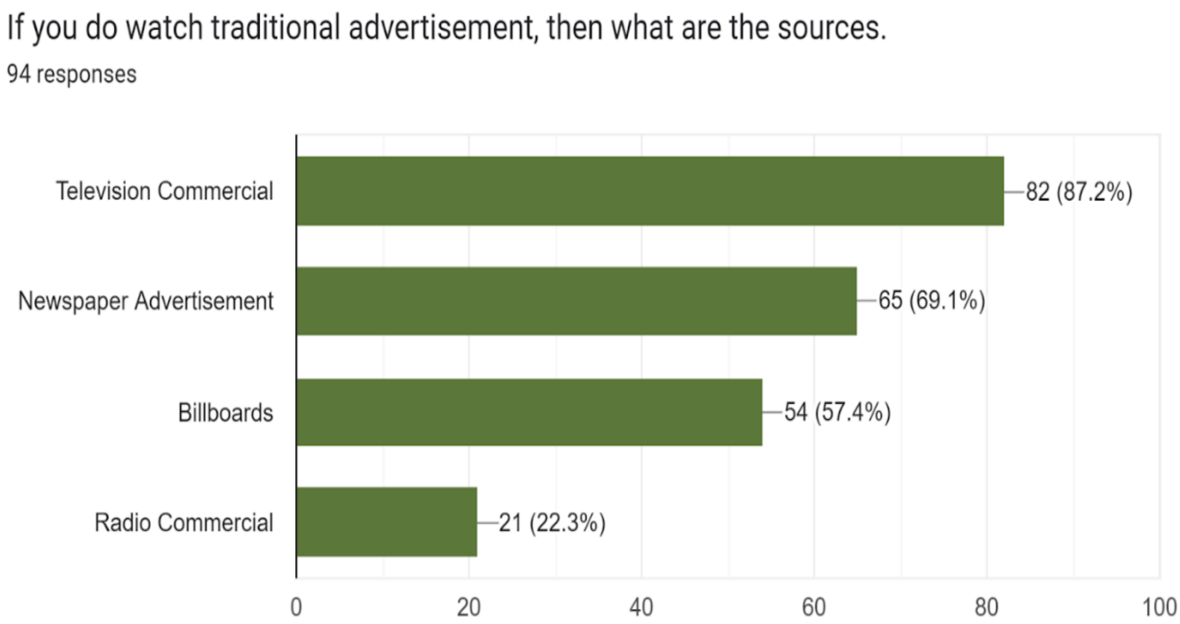
(Source: Primary data)

Graph3: Awareness of Traditional Advertisements



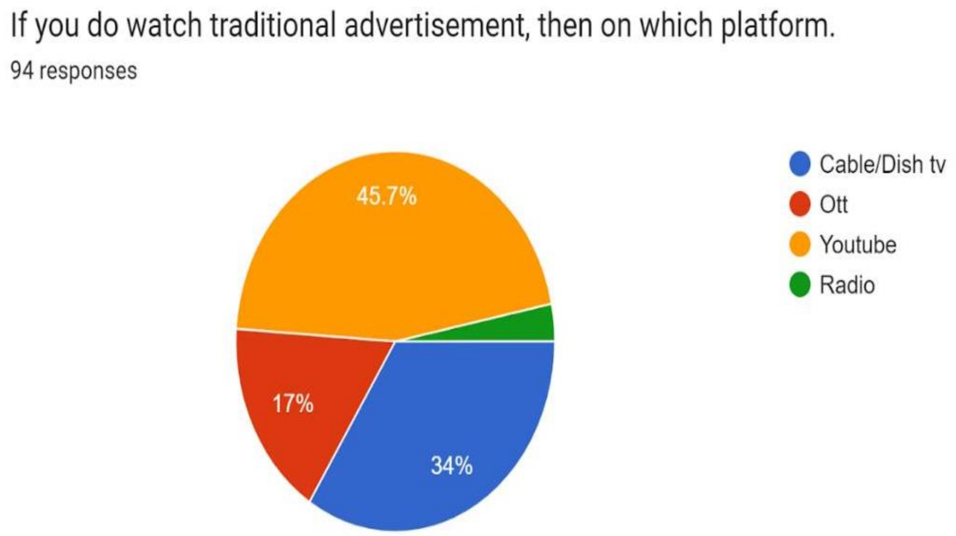
(Source: Primary data)

Graph4: Sources of Advertisements for Traditional Methods



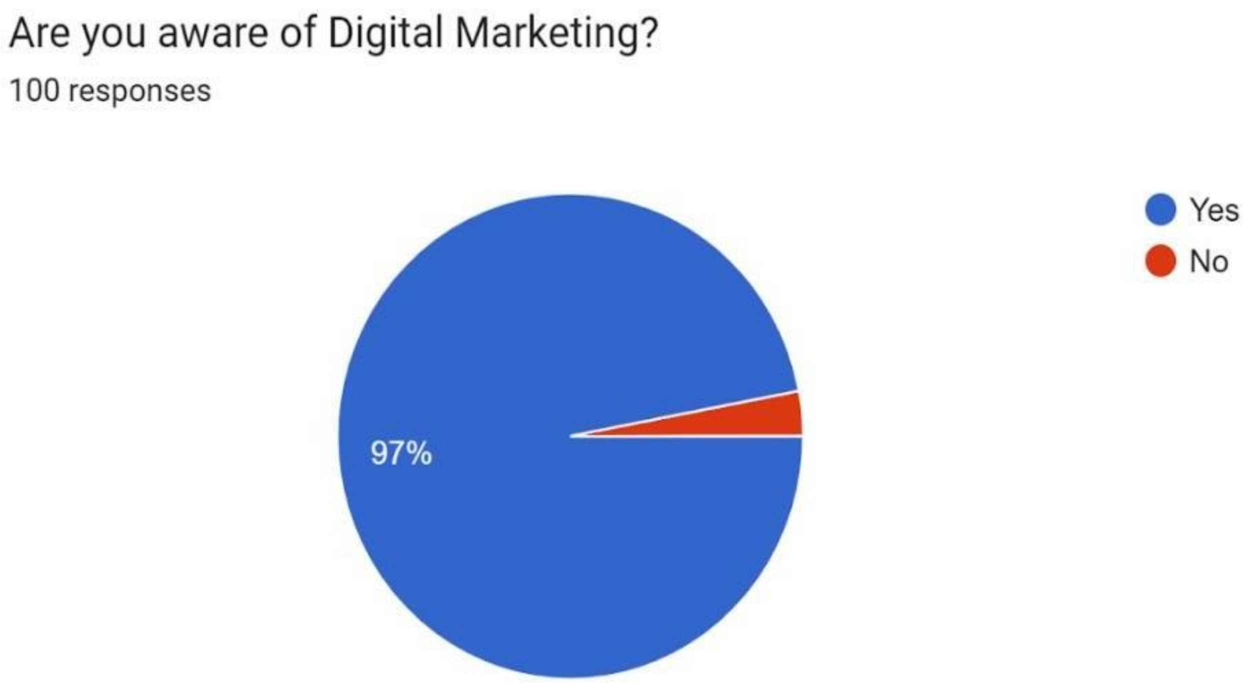
(Source: Primary data)

Graph5: Platform used to watch traditional advertisements



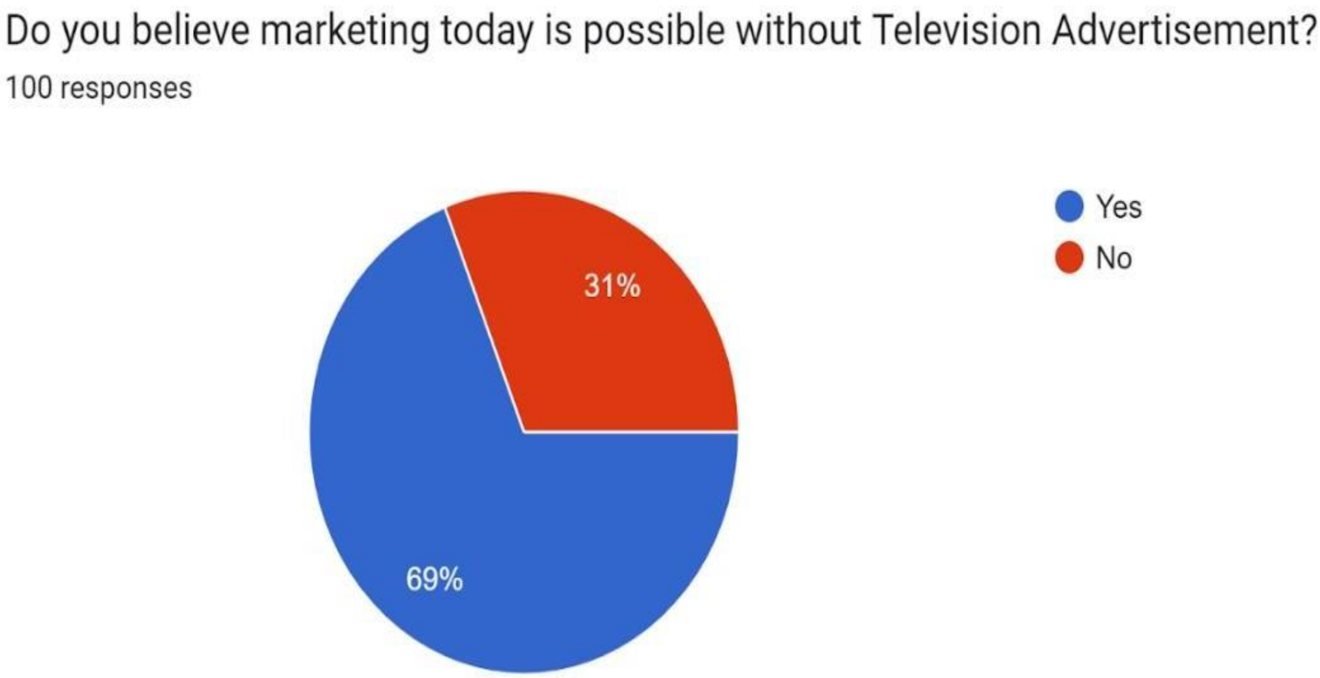
(Source: Primary data)

Graph6: Awareness of Digital Marketing



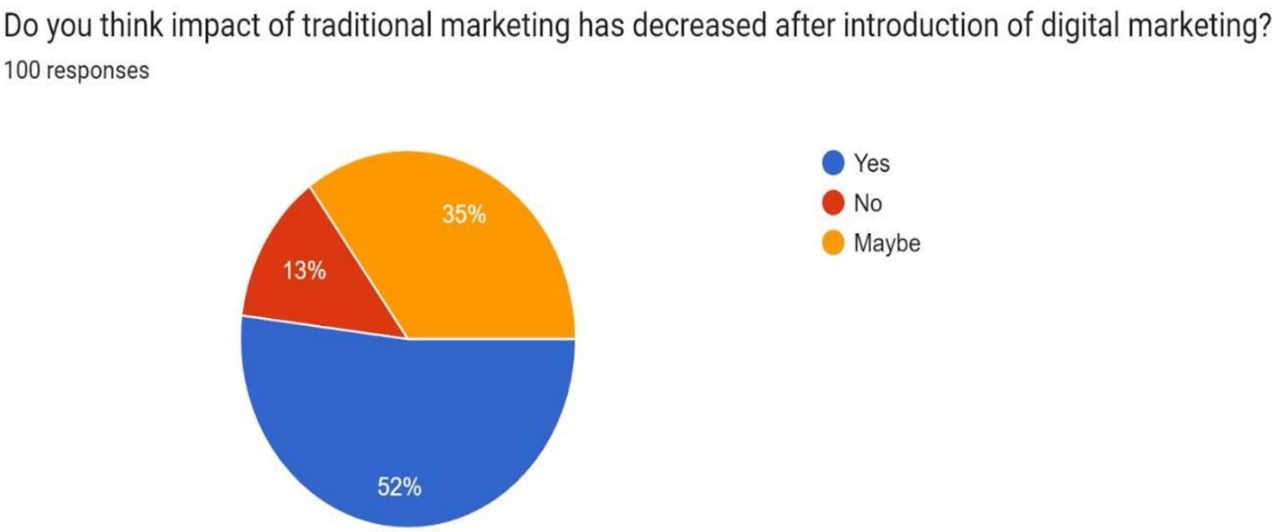
(Source: Primary data)

Graph7: Sources of Advertisements for Digital Marketing



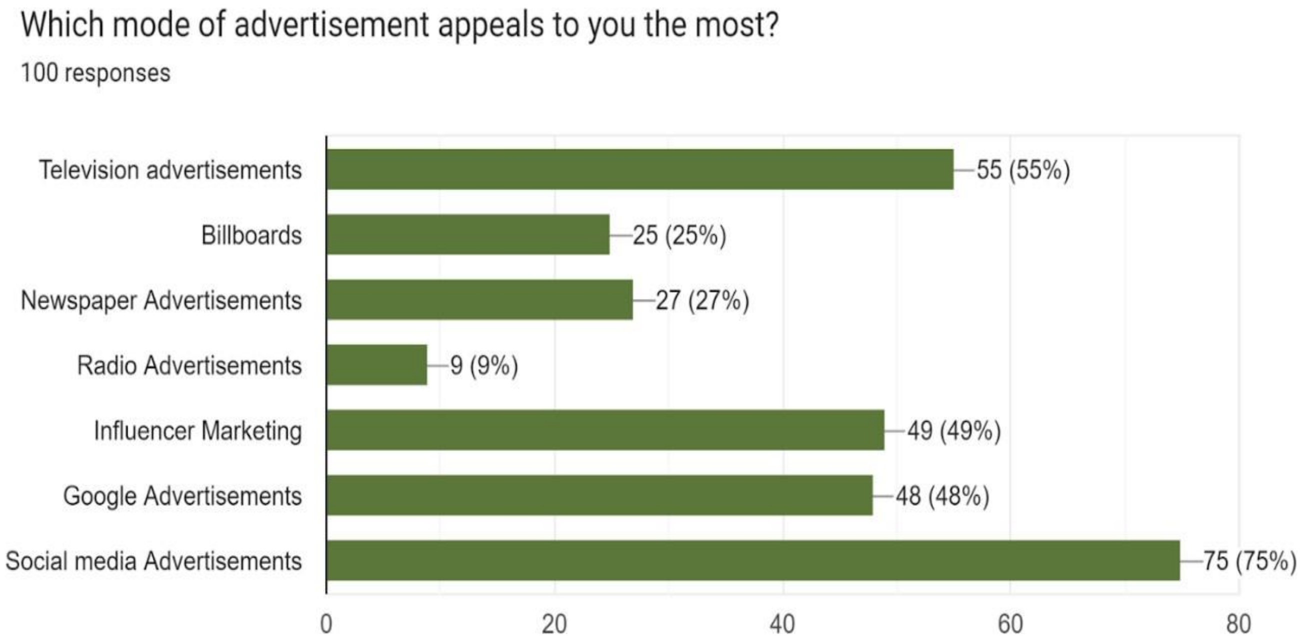
(Source: Primary data)

Graph8: Impact of traditional marketing after introduction of digital marketing



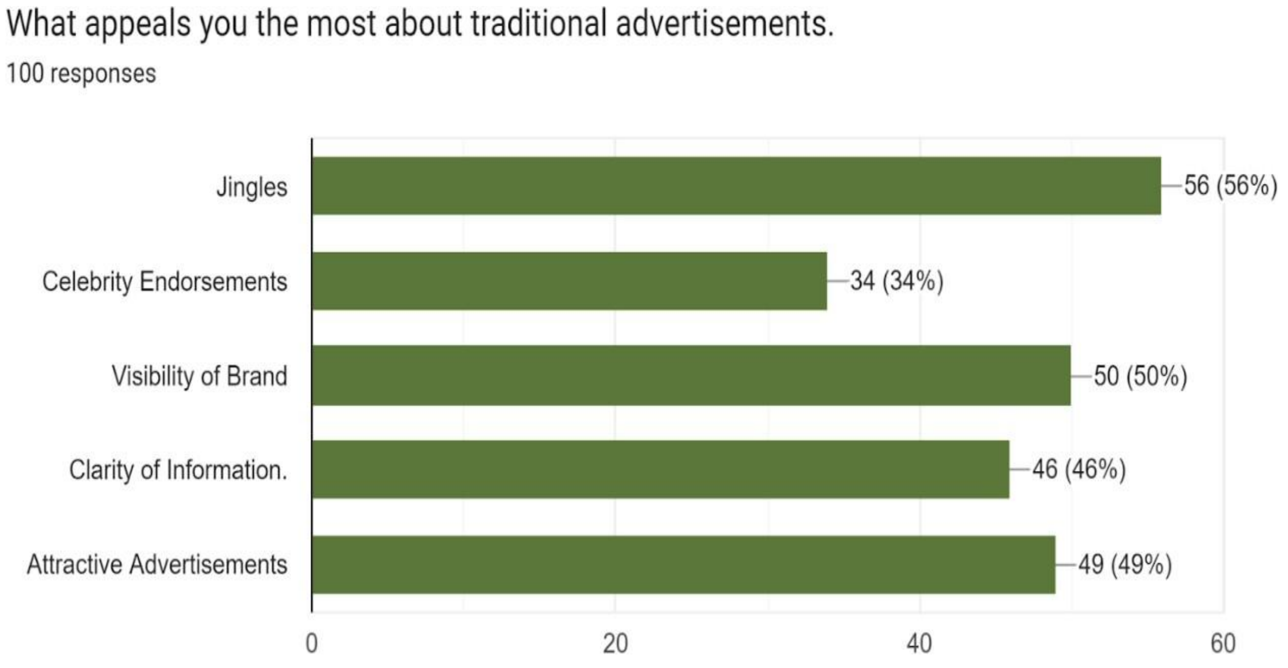
(Source: Primary data)

Graph9: What Appeals to the Audience?



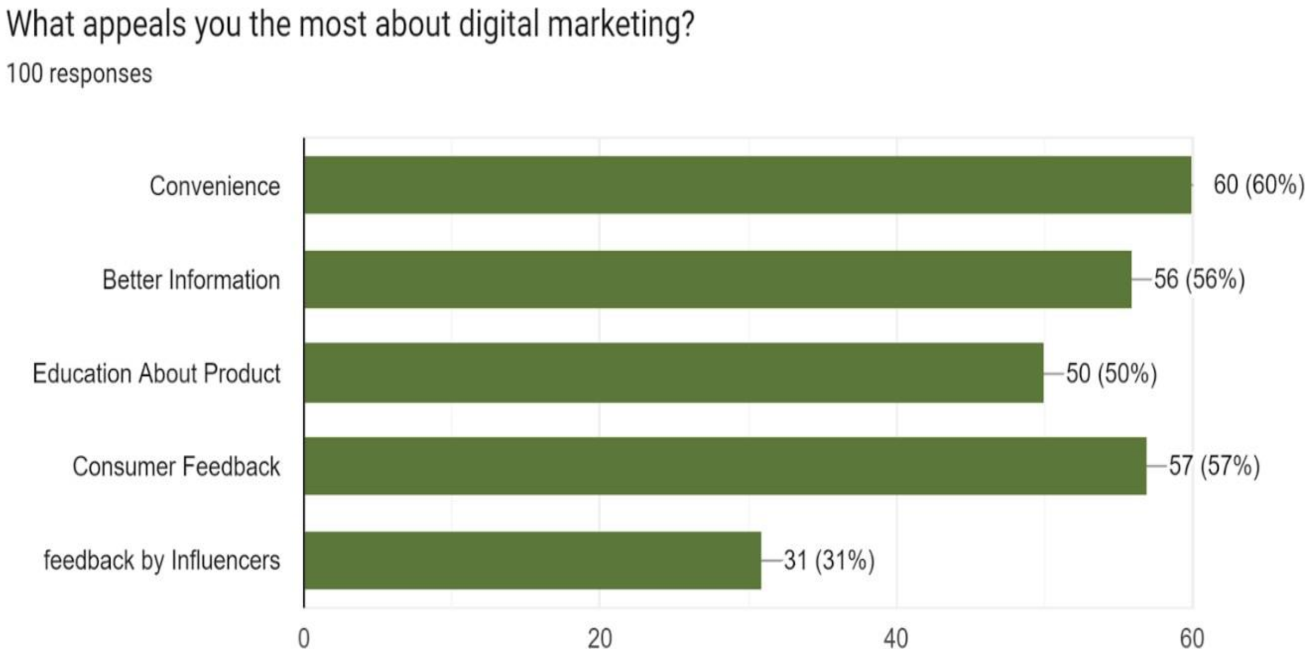
(Source: Primary data)

Graph10: What appeals you the most about traditional advertisements?



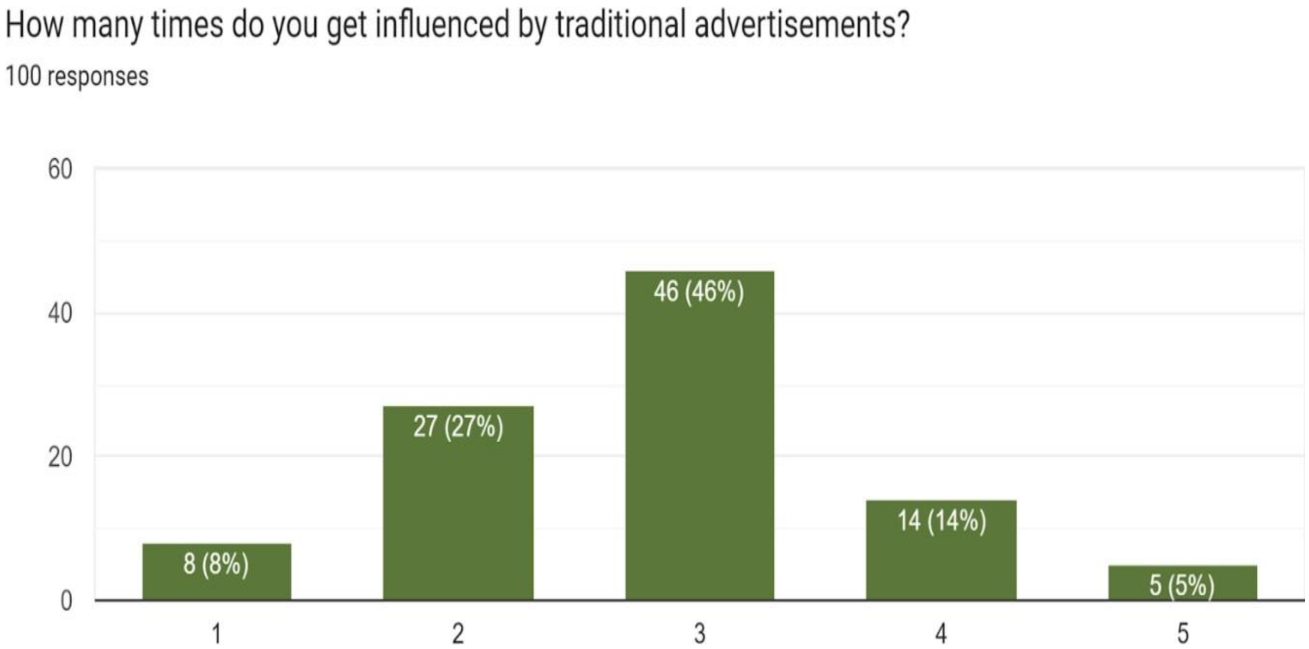
(Source: Primary data)

Graph11: What appeals you the most about digital marketing?



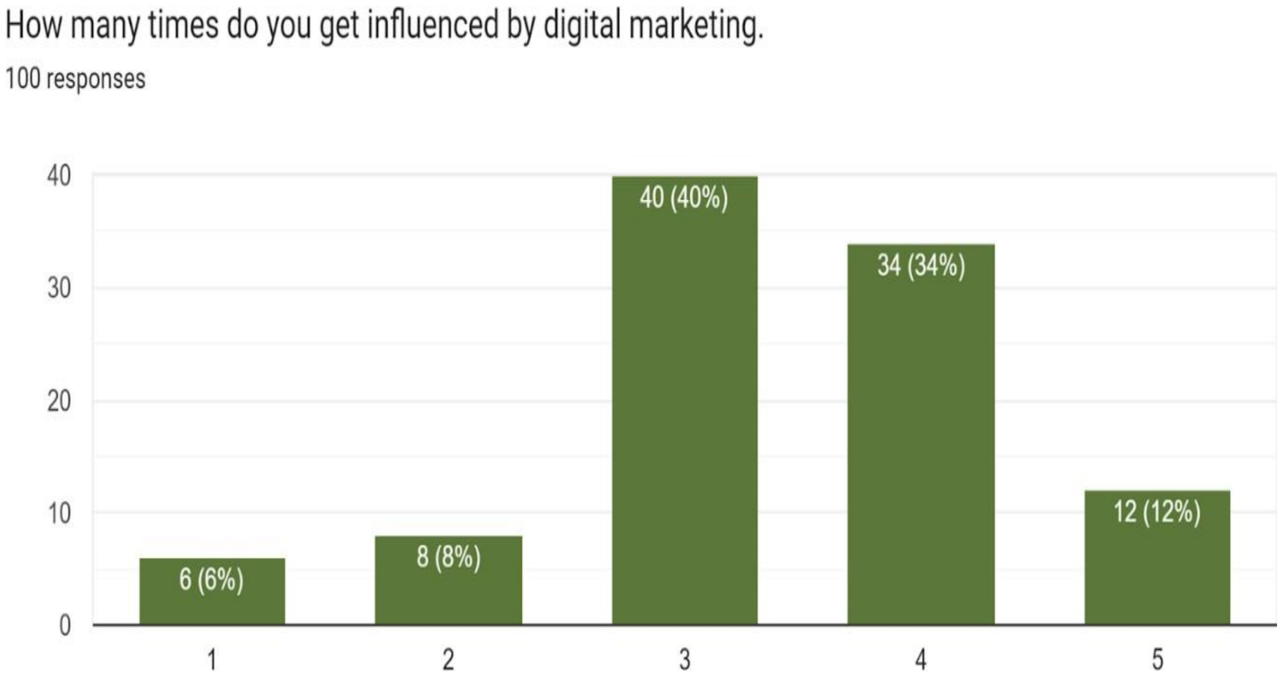
(Source: Primary data)

Graph12: What Influences the Audience More?



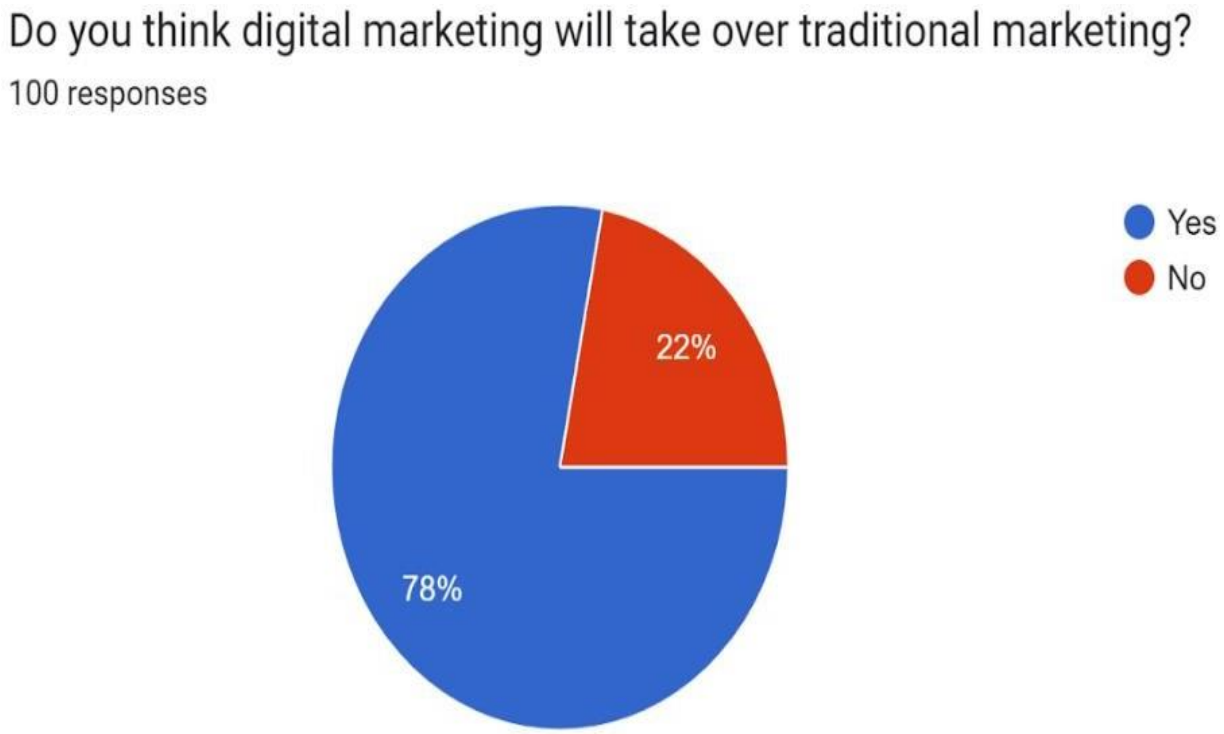
(Source: Primary data)

Graph13: Times influenced by digital marketing



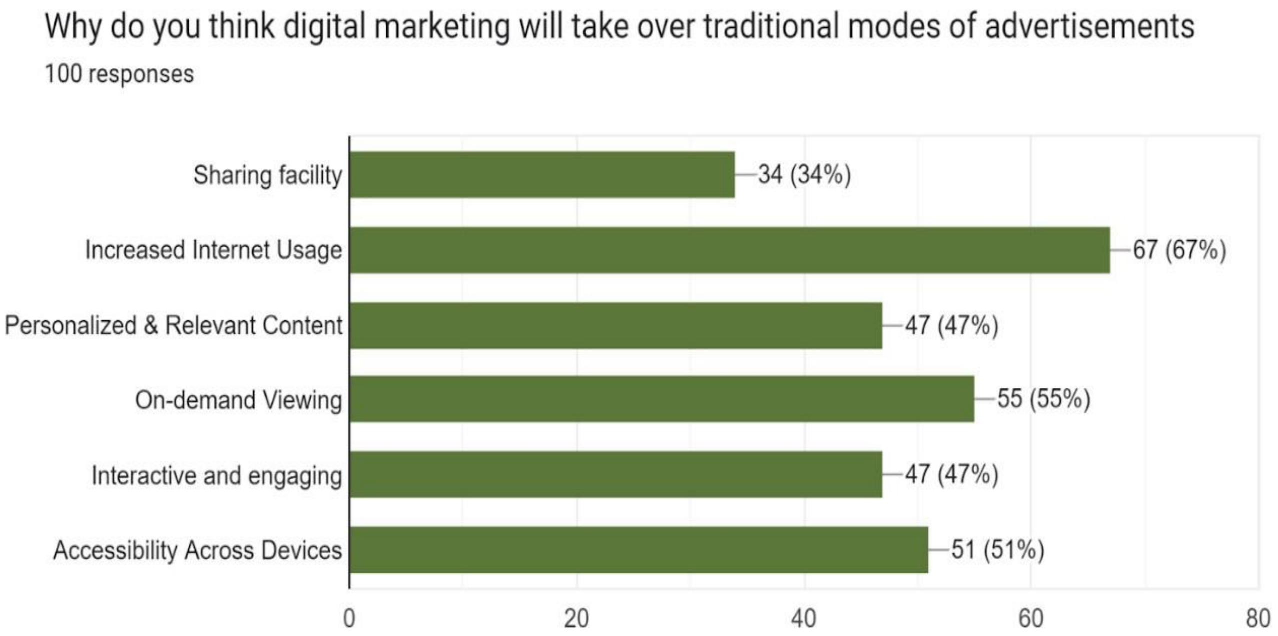
(Source: Primary data)

Graph14: Future of Traditional Advertisement



(Source: Primary data)

Graph15: Will digital marketing takeover traditional modes of advertisement's



(Source: Primary data)

Inferences:

• According to the above study, the majority of audiences think that the emergence of digital marketing has reduced the effectiveness of traditional advertisements.

• People think that with a good digital marketing strategy, product promotion is possible without costly television commercials, even though television advertising is the primary form of traditional advertisements owing to catchy jingles, the appeal of the advertisements, brand visibility, etc.

• Most people watch commercials on YouTube and on cable/dish television, but in the future, as more people are willing to pay extra for subscriptions that are ad-free, this consumption will decline.

• Not just among young people but also among those between the ages of 40 and 50, digital marketing is rapidly gaining popularity. This is a result of people using social media sites like Instagram, Twitter, LinkedIn, and Facebook more and more frequently. Influencer branding and content marketing are benefiting from the rapid rise in popularity of social media advertising.

• Digital marketing has a stronger impact on consumers' purchasing decisions than traditional marketing, especially among younger audiences.

• Numerous factors, such as increased internet use, increased social media use, falling cable/dish TV, advertising-free subscription deals, etc., could be to blame for this.

• Consumer awareness is another factor. Nowadays, consumers are less likely to run out and buy anything that their favorite celebrity is endorsing; rather, they are more keen on finding more about both the business and the product itself. They prefer commercials that have more information, and they frequently think influencers are providing them with a more authentic portrayal of the product.

• Users may now easily write reviews, share their stories, and specify how they wish to utilize a product thanks to social media marketing.

5. Conclusion

5.1 Conclusion

This study demonstrates that even while many people continue to consume advertising in many forms—such as watching television commercials, reading newspaper ads, listening to radio commercials, etc. However, we have concluded from the aforementioned results that in an era wherein new technology is always being developed, digital marketing will eventually replace traditional advertising. Different elements that contributed to the success of conventional advertising can and ought to be used.

Consumers nowadays are more knowledgeable and seek to know everything there is to know about a company and a product. Digital marketing satisfies this desire, and traditional advertising is also adjusting to its best, but Modernization always brings about changes in advertising trends.

5.2 Limitation

• Studies focused on the impact of digital marketing on traditional advertisements typically only examine short-term effects, with age and consumer knowledge being the primary factors considered.

• Limited research has been carried out in terms of the number of respondents and demographics to explore how digital marketing and traditional advertising differ in terms of credibility, authenticity, and building trust.

5.3 Suggestions

• Traditional advertising should employ successful strategies including the use of color, memorable jingles, product placement, and brand placement.

• With the development of artificial intelligence, consumer preferences will inevitably change. Digital marketing needs to be able to interact and adapt in such circumstances.

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9. The role of artificial intelligence and machine learning in digital transformation in business

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Abstract

Digital transformation is now essential for businesses that want to stay competitive and connected in the modern, technology-driven corporate environment. The fundamental role of artificial intelligence (AI) and machine learning (ML) in helping and speeding the digital transformation process inside organization is explored in this abstract. It explores the new potential of AI and ML while enlightening its uses, advantages, and difficulties. Digital transformation is being motivated by AI and ML, which enable businesses to take advantage of information's derived from data, improve decision-making, and simplify processes. They make it easier to systematize repetitive activities, personalize consumer experiences, and help innovation by enabling predictive analytics. Businesses in various sectors are applying AI and ML to gain a competitive advantage and improve resource allocation. Moreover, this abstract discusses the important factors to take into account while integrating AI and ML tactics inside a framework for digital transformation. It highlights the necessity of strong data control, moral AI usage, and efficient change management to guarantee a successful and long-lasting change. As organizations use AI and ML security and privacy issues are also there. The abstract highlights the potential for AI and ML to improve efficiency, and competitiveness while also highlighting their transformational capacity in corporate digital transformation. This summary provides a brief overview of the role of AI and ML in digital transformation in business.

Keywords: Artificial Intelligence, Machine Learning, Technology, Digital Transformation, Personalize Consumer Experience.

1. Introduction

Machine learning (ML) and Artificial Intelligence (AI) are quickly changing all types of enterprises. AI and ML are helping organizations in becoming more productive, creative, and customer-focused by automating task, enhancing decision-making, and generating new goods and services. Data entry and customer service are two of the many task that AI and ML can automate. This can free up human workers to concentrate on more creative and strategic tasks. AI and ML are being used to create new and innovative products and services that were not possible before. Digital Transformation is the process of combining digital technologies into a business's operations and customer experience. A major part of the digital transformation is being played by AI and ML, which are enabling companies to develop innovative and creative methods to do business.

In this research we will study about the role of Artificial Intelligence (AI) and Machine Learning in Digital Transformation.

• How AI and ML are automating task and improving efficiency?

• How AI and ML are improving decision-making?

• How AI and ML are creating new products and services?

In this project we will also study about the benefits and challenges of using AI and ML in digital transformation.

2. Literature Review

Asif Sanaullah developed an intelligent model to analyzing impact of relationship benefit and commitment on developing the customer loyalty using a hybrid machine intelligence approach. Survey methodology was used to gather data from three different service sectors based on the classification by Bowen. A sample of 600 customers and responses were collected randomly from the front desk of services.

B. K. Mohanta developed a machine learning based accident prediction in a secure IoT enables transportation system. The main motive behind this study is to predict the specific features which could affect vehicle accident severity. In this article, several classification models such as Logistic Regression, Artificial Neural network, Decision Tree, K-Nearest Neighbors, and Random Forest have been implemented for predicting the accident severity.

A. Riyaz developed an Intelligent Optimization Technique for Power Quality Enhancement of a Hybrid Energy Source Powered Packed E-Cell Inverter for micro-grid applications. Here in this study, Genetic Algorithm (GA) optimization technique is used to eliminate the harmonics. The experimental demonstration for the validation of the proposed scheme is performed by using Typhoon HIL.

Ibrahim Alsaidan proposed an intelligent model using different AI methods for solar energy forecasting, which is a step towards sustainable power generating system. The forecasting accuracy of the developed models is evaluated based on statistical indices such as absolute relative error and mean absolute percentage error.

N. Fatema proposed a data-driven intelligent model for quality management in healthcare. Quality management in healthcare incorporates with making of various quality policies, quality planning and assurance, quality control and quality improvement. Quality improvement (QI) is the scheme used for betterment of the services delivered to the patients, such as diagnosis and treatment. In this article artificial intelligence and machine learning techniques have been implemented to enhance the diagnosis accuracy of the liver fibrosis which is caused by hepatitis C virus (HCV). The proposed data-driven intelligent model for identification of liver fibrosis using hybrid approach is designed and implemented to overcome the SLBs problems with higher diagnostic accuracy.

S. Singh and S. Srivastava proposed a Kernel Fuzzy C- means clustering with teaching learning-based optimization algorithm (TLBO-KFCM). Simulation using five data sets are performed and the results are compared with two other optimization algorithms (genetic algorithm GA and particle swam optimization PSO).

S. Dhingra and P. Bansal represented the designing of a rigorous image retrieval system with amalgamation of artificial intelligent techniques and relevance feedback. In this implementation, an exclusive and competent content-based image retrieval (CBIR) system is schemed by the integration of Color moment (CM) and Local binary pattern (LBP). In this article, two artificial intelligent CBIR models are proposed, first one is (Hybrid + SVM + RF) and second is (Hybrid + CFBPNN + RF) and their performance parameters are compared.

S. Sharma developed a control loop oscillation detection and quantification system using PRONY method of IIR filter design and deep neural network. Experimental results confirm that the presented algorithm is capable of detecting the presence of single or multiple oscillations in the control loop data and the proposed algorithm is also able to estimate the frequency and amplitude of detected oscillations with high accuracy.

P. Srikanth and C. Koley developed a deep learning and signal processing-based algorithm for auto recognition of harmonic loads in the power system network. A convolution neural network (CNN) based deep learning method has been proposed for automatic classification and localization of nonlinear loads present in an interconnected power system. The proposed approach avoids the usage of any additional fusion layer for obtaining unique features, reduces the training time and maintains the highest accuracy of 100%.

S. P. Ajith Kumar proposed a distributed probability density based multi- objective routing system for Opp-IoT networks enabled by machine learning. The proposed approach opportunistic fuzzy clustering routing (OFCR) protocol employs a three-tiered intelligent fuzzy clustering-based paradigm that allows representation of multiple properties of a single entity and the degree of association of the entity with each property group.

Abdulaziz Almutairi developed a cyber-attacks identification model for IEC 61850 based substation using proximal support vector machine for maintaining the reliable, efficient, secure and multifunctional. In this article, few of the most serious threats (i.e., DoS (Denial of Services), MS (Message Suppression) and DM (Data Manipulation) attacks, where DoS is due to flood bogus frames) in the substation automation system (SAS) are analyzed. The obtained results of the demonstrated study show the effectiveness and high level of acceptability for real side implementation to protect the SAS from the cyberattacks in different scenarios.

Malik, H represented a novel approach for power quality disturbances (PQDs) diagnosis (PQDD), which includes real-time data generation, data pre- processing, feature extraction, feature selection, intelligent model development for PQDD. Data decomposition approach of EMD is utilized to generate the feature vector of IMFs. These features are utilized as an input variable to the intelligent classifiers. In this article PQDD is analyzed based on SVM method and obtained results are compared with conventional AI method of LVQ-NN.

N. Fatema developed a deterministic and probabilistic occupancy detection scheme with a novel heuristic optimization and Back-Propagation (BP) based algorithm. In this article, the GSA (Gravitational Search Algorithm) is used as a new training technique for BPNN is order to enhance the performance of the BPNN algorithm by decreasing the problem of trapping in local minima, enhance the convergence rate and optimize the weight and bias value to reduce the overall error. The proposed approach is validated with different hidden-layer neurons for both experimental studies based on BPNN and BPNNGSA.

Mohammed A. proposed an MPPT based on bat algorithm for photovoltaic systems working under partial shading conditions. The proposed model has been verified in both Simulink and experimental environment using Hardwar in loop (HIL) with a Typhoon HIL 402 setup. The proposed algorithm is simple and efficient, and having a low-cost microcontroller.

R. Devarapalli developed an approach to solve optimal power flow (OPF) problems using a novel hybrid whale and sine cosine optimization algorithm. To validate the performance of proposed technique, the results are compared with other methods available in the literature.

M. Hasan developed a fuzzy rule-based control algorithm for MPPT to drive the brushless DC motor-based water pump. The performance of proposed fuzzy rule- based control algorithm is demonstrated using simulation results on MATLAB platform.

3. Research Methodology

The methodology of the research paper "The Role of Artificial Intelligence and Machine Learning in Digital Transformation in Business" Literature Review, we conduct an extensive review of existing literature on artificial intelligence (AI), machine learning (ML), and digital transformation in business. Identify key concepts, theories, and models related to AI and ML. We develop a comprehensive understanding of the current state of knowledge and research in this area. Data Collection, we collected primary data by circulating questionaries’ in the corporate. we ensure that the data is relevant, reliable, and representative of the research topic. We prepare the data for analysis by cleaning, organizing, and coding it. Data Analysis, employ a combination of qualitative and quantitative data analysis techniques to explore the relationship between AI and ML in business. We identify patterns, trends, and insights from the data. We develop a deeper understanding of the role of AI and ML in businesses. Findings, we summarize the key findings of the research. We discuss the implications of the findings for businesses, policymakers, and practitioners, and also the several challenges faced by the business by implementing AI and ML into their business. Conclusion, we summarize the methodology used, its strengths, and any constraints that might impact the study's results.

3.1 Hypothesis

The integration of Artificial Intelligence (AI) and Machine Learning (ML) is critically important in driving and moulding the digital transformation of enterprises, transforming predictable operational frameworks and increasing the overall efficiency of organizations. The hypothesis suggested in this study is that companies can significantly modify their competitive environment by implementing AI and ML technologies strategically, which enables them to optimize processes, make data-driven decisions, and innovate. This study aims to determine the range to which AI and ML contribute to successful digital transformations by identifying critical factors that determine their effectiveness and impact on organizational outcomes through a thorough analysis of real-world case studies, technological advancements, and industry trends. According to the hypothesis, companies that strategically use AI and ML tools will be in a better position to manage the challenges of the digital age and promote flexibility, adaptability, and long-term success in a global market that is becoming more and more competitive.

3.2 Objectives

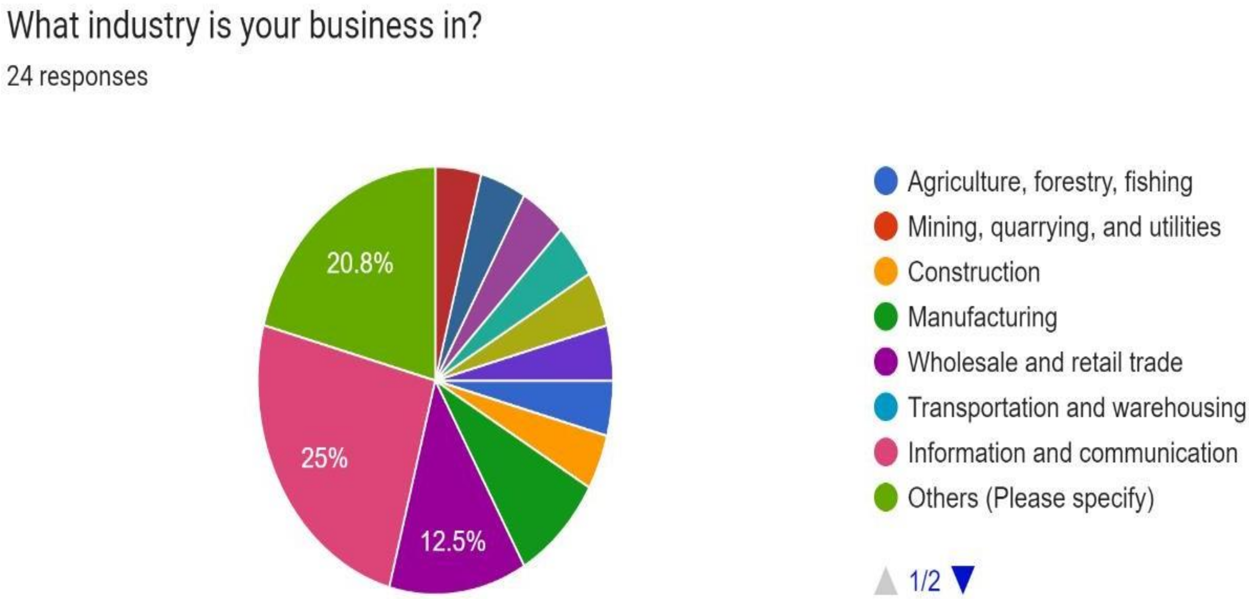
The objectives of the research paper on "The Role of Artificial Intelligence and Machine Learning in Digital Transformation in Business":

Objective 1: To investigate the theoretical basis of artificial intelligence (AI) and machine learning (ML) and their application to corporate digital transformation.

Objective 2: To look at the numerous uses of AI and ML in various sectors and business tasks including marketing, sales, customer service, supply chain management, and risk management.

4. Data Analysis & Interpretation

Thus, as we proceeded, we gathered primary data for our study based on the corporate sector's replies, which are as follows:?

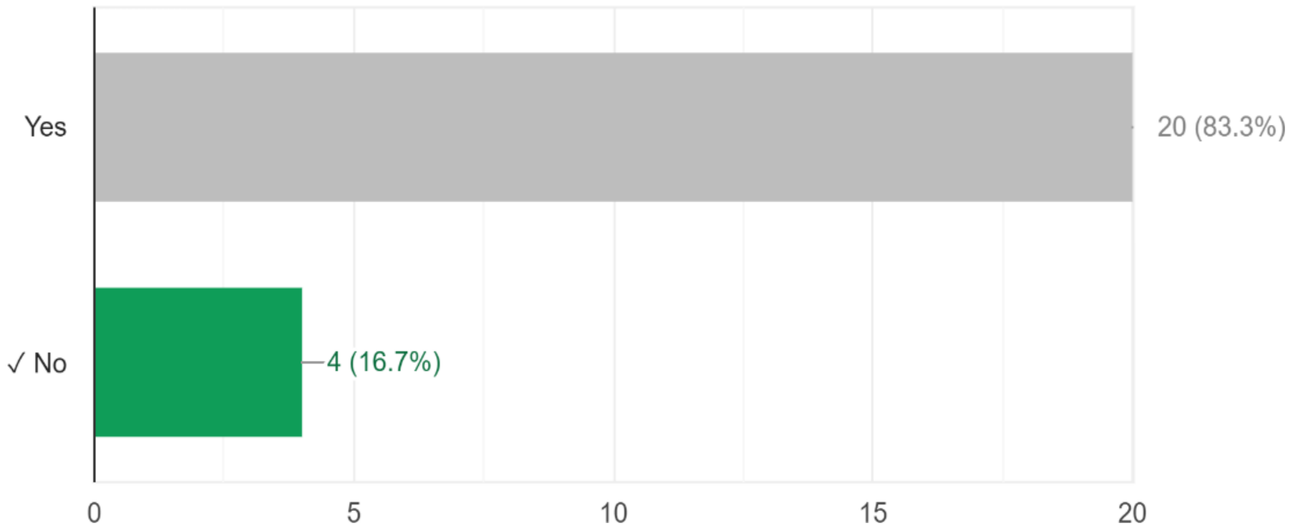


(Source: Primary data)

Our data is therefore compiled by industry (including manufacturing, construction, wholesale and retail trade, transportation and warehousing, information and communication, forestry, fishing, mining, quarrying, and utilities). As we can see, the largest employment sectors are in the IT industry (25%) and the other sectors (20.8%) as well as the wholesale and retail trade sector (12.5%).

Furthermore, we obtain from our data is the number of workers or workforce in a specific firm. We discovered that 45.8% of firms had 1001 or more employees, indicating that AI is used in their organizations.

From this study, it becomes evident that most businesses use AI and ML in some capacity.



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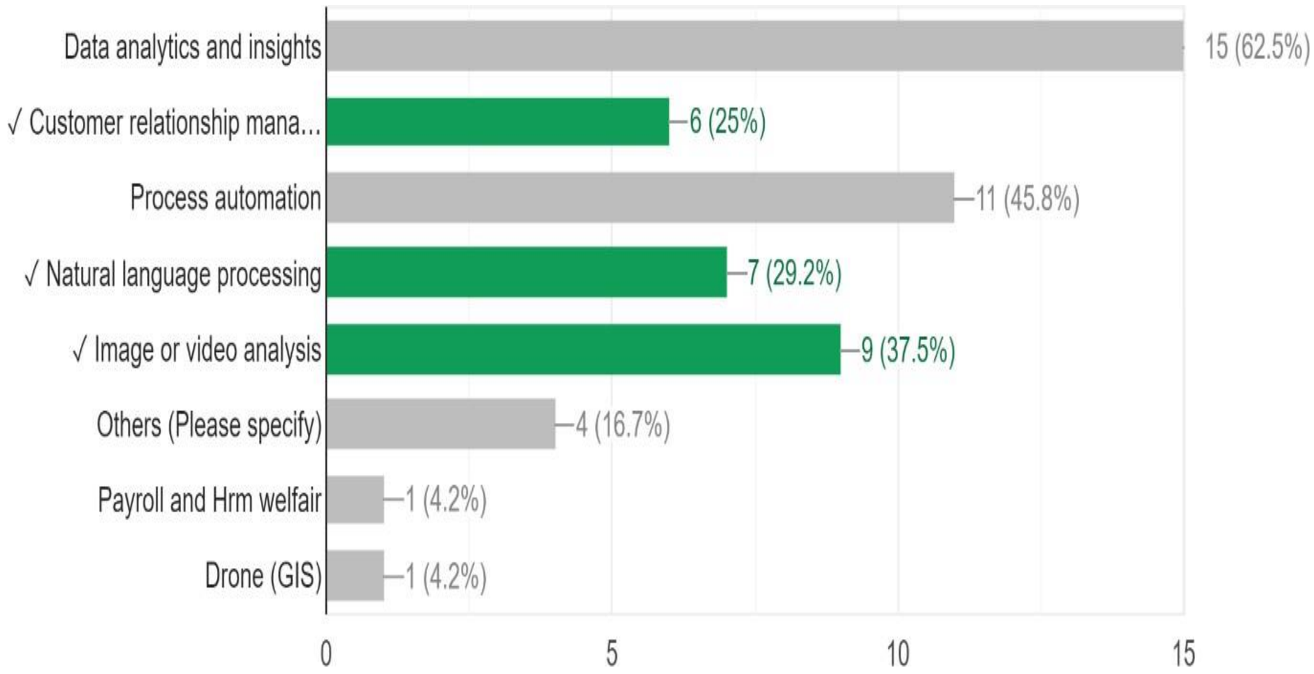
Those firms that employ AI and ML mostly use these tools for data analytics and insights, process automation, image or video analysis, and improving customer relationship management.



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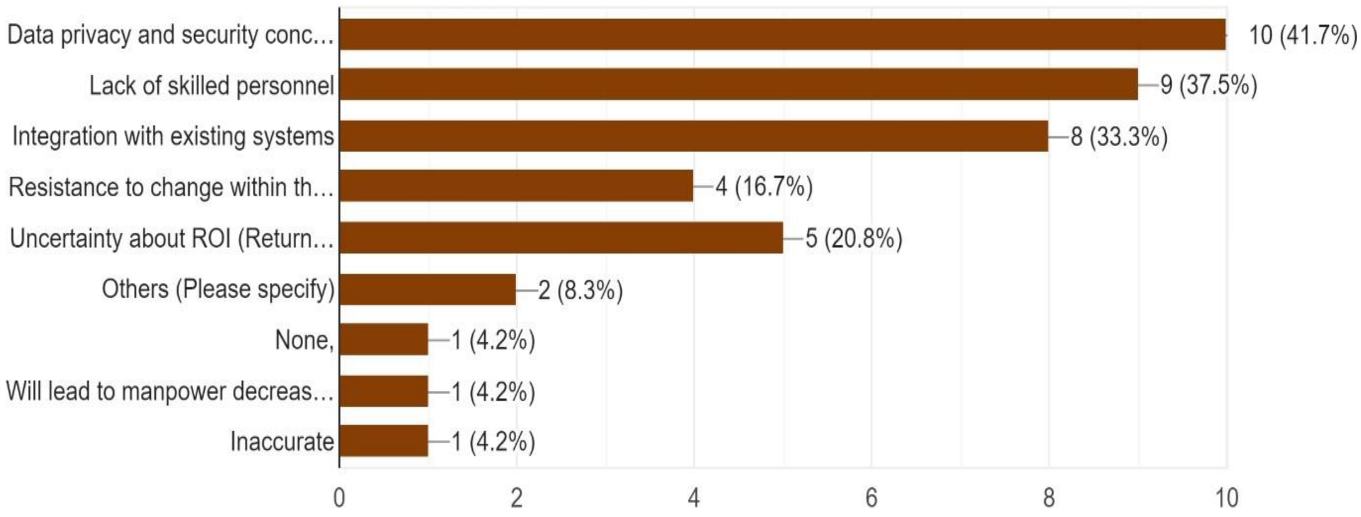
According to the statistics 62.5% of individuals use AI and ML for data analytics and insights, 45.8% use it for process automation, 37.5% use it for image or video analysis, and 29.2% use it for natural language processing. 25% of individuals use it to improve customer relationship management, while 4.2% use it for payroll, HRM (Human Resource Management), welfare, and Drone (GIS).



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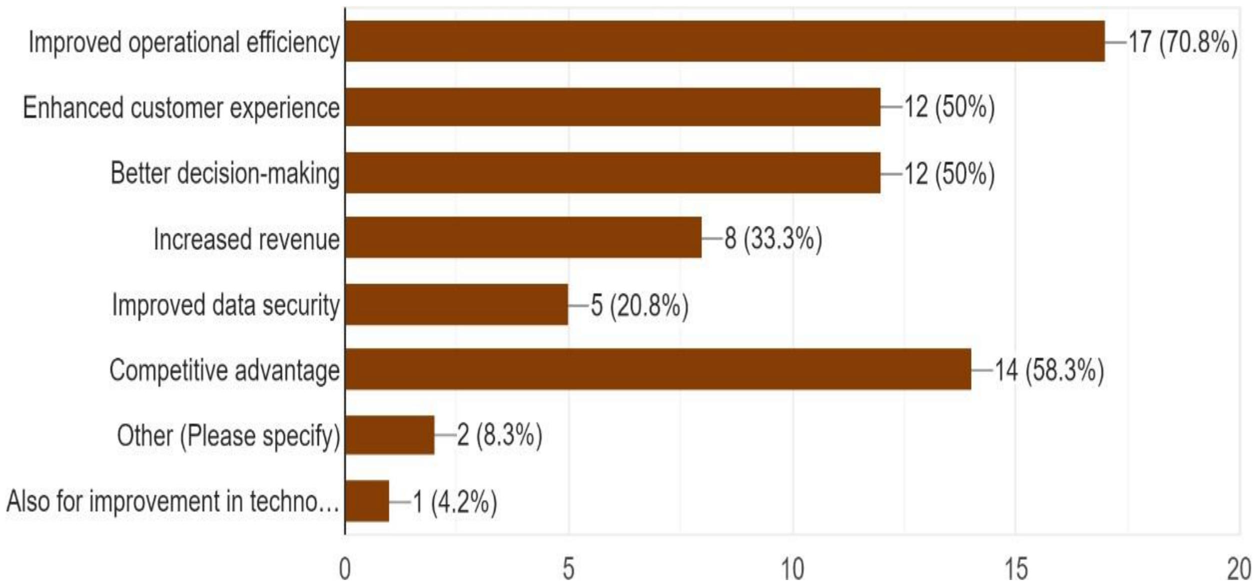
Furthermore, we can see that the benefits of incorporating AI and ML into an organization's digital transformation include increased operational efficiency, competitive advantages, and greater customer experience.

According to the study, 70.8% of individuals obtain advantages from operational efficiency, 58.3% gain benefits from competitive advantage, and 50% gain benefits from improving customer experience and decision making in the firm.



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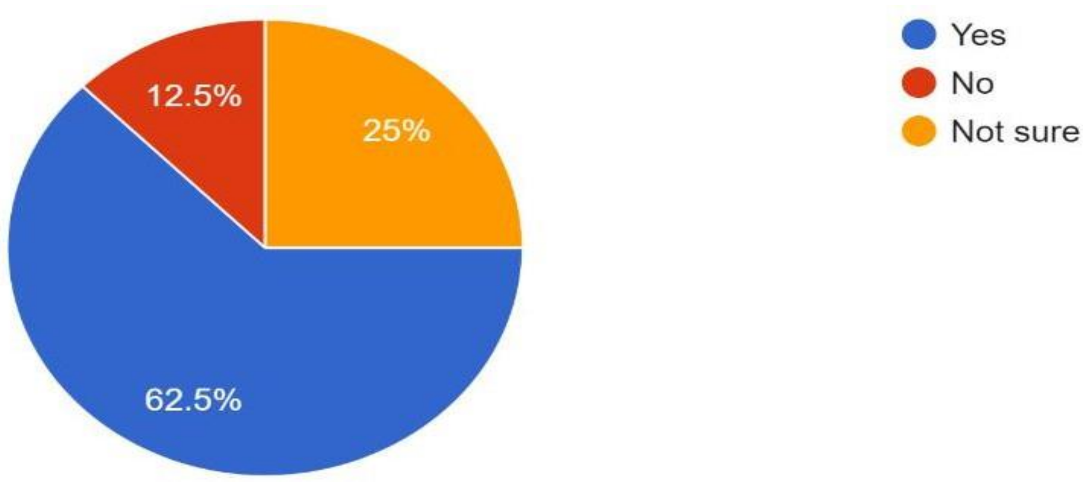
From this research, there are various problems that organizations encounter while implementing or adopting AI and ML for digital transformation in the company. The main challenges that a company has while using AI and ML are data privacy and security concerns. This challenge has been accepted by 41.7% of the organization's members.

Followed up, 37.5% of participants reported that a shortage of experienced workers in a business makes it difficult to adopt AI and ML. Integration with current systems is also a major challenge for 33.3% of respondents in dealing with AI and ML in business transformation. Uncertainty regarding ROI (Return on Investment) and resistance to change with technology were discovered by 20.8% and 16.7% of individuals, respectively, if they apply AI and ML into their firm to alter it.

Furthermore, firms intend to boost their investment in AI and machine learning technology for digital transformation during the next 12-24 months.

According to the statistics, 62.5% of firms want to raise their investment in AI and ML technology, while 25% are unsure and 12.5% are opposed to increasing their investment in AI and ML technologies for corporate digital transformation.



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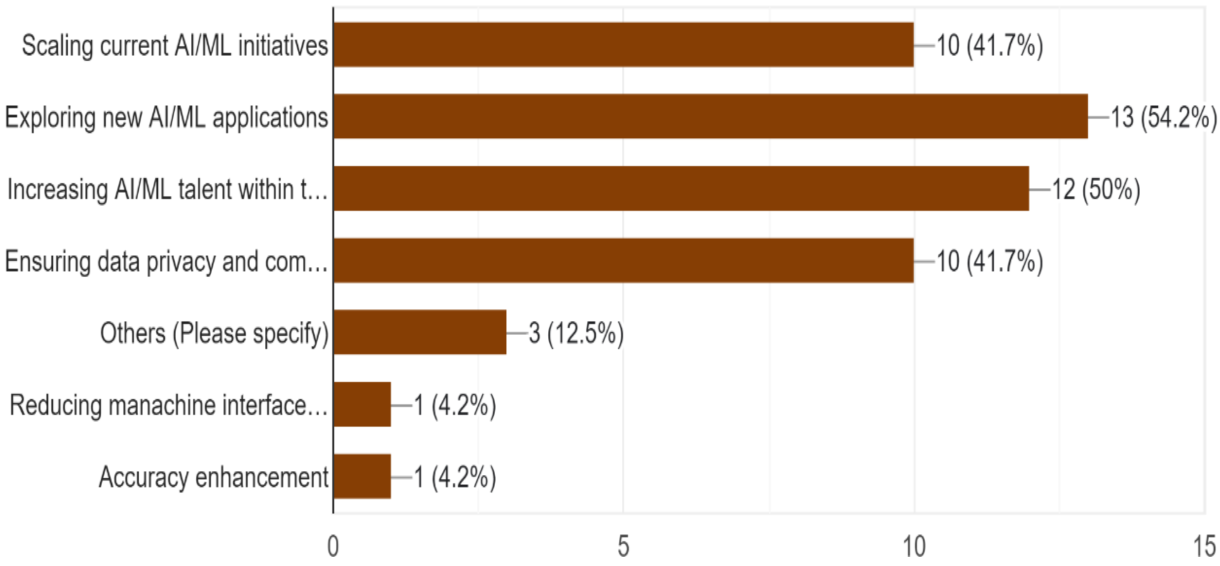
Those businesses who raise their investment in AI and ML are focus on exploring new AI and ML applications, as well as increasing AI and ML expertise inside the company and growing current AI and ML efforts, as well as ensuring data protection and compliance.



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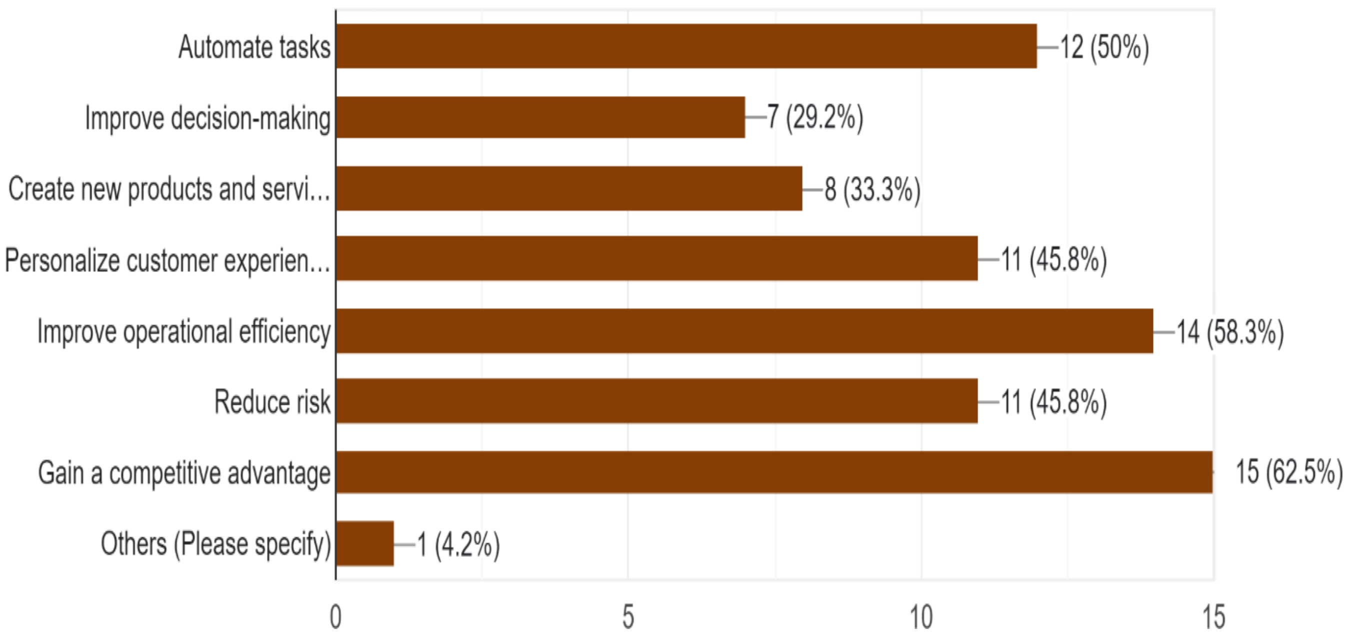
According to the statistics, 54.2% of firms are investigating new AI and ML applications, with 50% planning to increase AI and ML skills within the organization. 41.7% of firms are focusing on growing current AI and machine learning activities while also assuring data protection and compliance. 4.2% are concerned with improving accuracy.

Organizations anticipate a variety of potential for AI and ML to alter their businesses in the next years, such as how AI and ML may be utilized to obtain a market competitive edge. It may also be utilized to boost operational efficiency and automate repetitive processes. AI and machine learning may also be used to tailor client experiences, eliminate organizational risks, and generate new products and services. AI and machine learning may also be utilized to improve organizational decision making.



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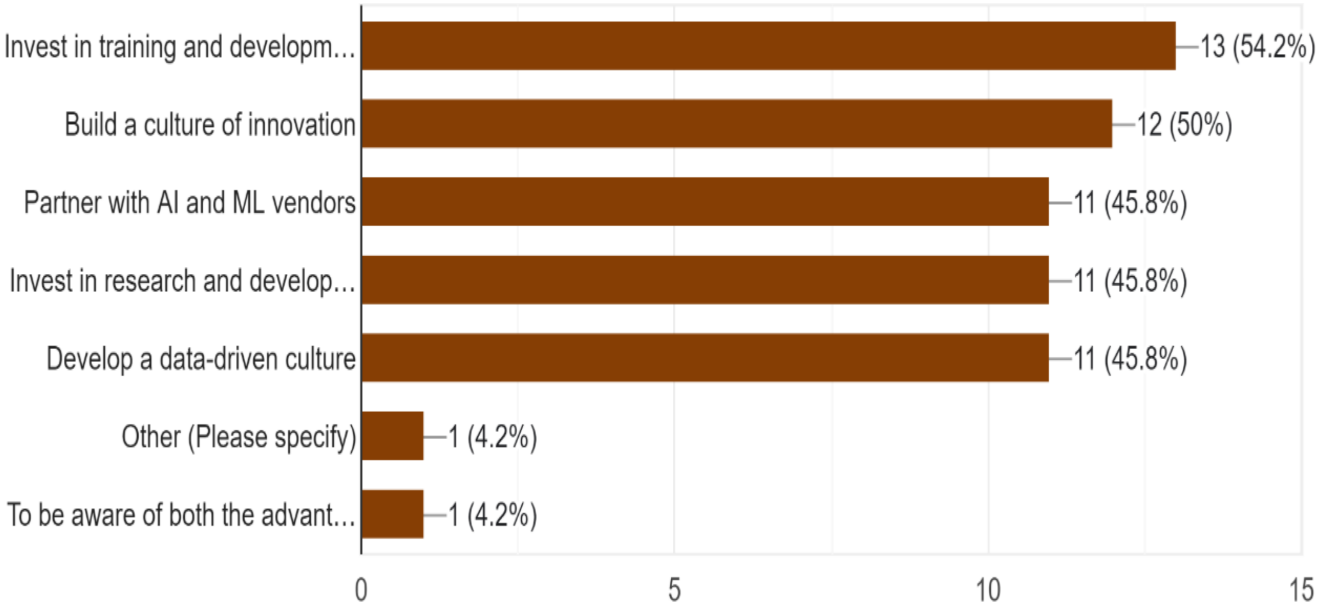
According to the statistics, 62.5% of firms perceive the usage of AI and ML in their business as a fantastic potential to acquire a competitive edge in the industry. 58.3% of firms believe it would increase operational efficiency, while 50% believe it will automate processes. 45.8% of firms believe it will decrease risks and create a more personalized customer experience. AI and ML can also provide significant opportunities; 33.3% believe it will aid in the development of new goods, while 29.2% believe it will aid in the improvement of organizational decision making.

When it comes to AI and ML, businesses must do several things in order to successfully implement them. These include investing in employee training and development, creating a culture of innovation in which any new innovation or idea can be considered, partnering with AI and ML vendors, investing in research and development, and developing a data-driven culture.



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According to the statistics, 54.2% of individuals feel that investing in staff training and development would contribute to the effective deployment of AI and ML in company. While 50% say that creating a new culture of innovation can help with the application of AI and ML in the organization. 45.8% of individuals feel that partnering with AI and ML suppliers, investing in research and development, and developing a data-driven culture would help businesses effectively use AI and ML.

Inferences:

AI and machine learning (ML) are fast changing the way organizations function, allowing them to automate activities, improve consumer experiences, and make data-driven choices. This study investigates the role of AI and machine learning (ML) in digital transformation, outlining the important benefits and problems related with their implementation.

The Most Important Advantages of AI and Machine Learning in Digital Transformation

• AI and machine learning may automate tedious and time-consuming processes, allowing people to focus on more important duties. This can result in major improvements in efficiency and production.
• AI and machine learning may provide 24/7 customer service and targeted suggestions, enhancing client satisfaction and loyalty.
• AI and machine learning algorithms can analyse massive volumes of data to identify hidden patterns and trends, allowing organizations to make smart marketing, product development, and resource allocation decisions.
• AI and machine learning can detect deviations and trends in data that may signal deceitful behaviour, assisting organizations in modifying risk and protecting their assets.

Furthermore, from the study we find that adoption of ML and AI Is challenging for organization in following ways:
• In order to deliver reliable results, AI and ML algorithms rely on high- quality data. To assure AI success, businesses must spend in data gathering, purgative, and preparation.
• AI models can be complicated and opaque, making understanding their decision-making processes challenging. To acquire confidence and solve ethical concerns, explainable AI has to be emphasized by enterprises.
• To create, implement, and manage AI-powered solutions, employers need to find and keep skilled AI and ML personnel.
• AI and ML applications sometimes need large computational resources and specialized infrastructure, which can be costly to create and maintain.
• When developing and applying AI algorithms, it is important to eliminate biases and make fair decisions.

From this study we find that, organizations primarily use AL and ML in Data Analytics and Insights, Process Automation, Image and Video Analysis along with Natural Language processing and Customer relationship management. The benefits we can observe by implementing AL and ML in business are Improved operational efficiency, competitive advantages, better decision making along with Enhanced customer experience. Companies are increasing their investment in AI and ML technologies in digital transformation of the business. Organizations are focused on investing in exploring new AL and ML applications, Increasing AI and ML talent within the organization, ensuring data privacy and compliance along with scaling current AI and ML initiatives. The biggest opportunities we see for AI and ML to transform in business in the next 5 years are gain a competitive advantage, improve operational efficiency, automate tasks, personalize customer experience, reduce risk. The most important things that businesses need to do to succeed in implementing AI and ML are invest in training and development for employees, build a culture of innovation, develop a data driven culture along with invest in research and development and partner with AI and ML vendors.

5. Conclusion

In conclusion, the part that artificial intelligence (AI) and machine learning (ML) play in digital transformation has become clear as a key factor in changing the face of business. It is clear from a thorough investigation of this subject that AI and ML technologies are revolutionary elements that effect innovation, efficiency and competitiveness in a variety of business sectors rather than only being tools. A new age of data-driven decision-making has begun with the integration of AI and ML into business processes, which allows firms to collect insightful information from huge databases. As a result, businesses are now more equipped to streamline operations, make strategic decisions, and improve consumer experiences. Furthermore, AI's capacity for ongoing learning and adaptation puts companies in a flexible position to respond to changing market conditions. AI and ML-oriented digital transformation is more than just automation; it's a fundamental change in organizational standards. Businesses who effectively implement these technologies will be better able to react to changes in the market, customize consumer interactions, and open up new sources of income. The combination of machine intelligence with human intelligence creates a cooperative atmosphere where each both advantages are maximized. When using AI and ML technologies, organizations must take responsibility, transparency, and ethical issues into account. Creating a stable environment between ethical standards and technical advances is crucial for developing stakeholder trust and promoting responsible innovation. As AI and ML develop further, they will probably play an even bigger part in the digital revolution going forward. Companies need to continue being positive in responding to these developments by encouraging a culture of ongoing innovation and learning. In addition to technology, the path towards digital transformation with AI and ML at its center involves reshaping organizational culture, accepting change, and seeing a future in which human imagination works in harmony with intelligent machines to drive previously undiscovered levels of business success.

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10. Beyond tradition: Revolutionizing global education with technology

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Abstract

A notion that first surfaced in the 1960s and 1970s, global education aims to promote an awareness of global phenomena in order to advance human development. The use of globalisation has changed to embrace the virtual interconnectedness of the technology era after being first incorporated into formal education through conventional methods. The global education, on the other hand, aims to expand the pool of intellectual capital globally by promoting interconnected futures, encouraging compared objectives, and stimulating a fascination for local points of view and global trends.

This study looks at how global schooling is changing in the age of technology and how local variances affect it. It draws attention to the drawbacks of conventional education, which frequently concentrates on out-of-date hypotheses and little expertise in the subject. The study explores how technological advances can support and improve global education while delving into the possibilities as well as difficulties brought about by the technology revolution. In addition, it acknowledges the local variances in global education and the various contexts and viewpoints that influence educational experiences across globally.
Through a closer look at the revolutionary dynamism and local variances of global learning in the age of technology, this study adds to our knowledge of this developing field and its potential to create a more informed and interconnected world community.

Keywords: Global education, revolutionary dynamics, local variances, traditional education, technology revolution.

1. Introduction

The tremendous impact of digital technologies on education in the twenty-first century is causing a significant upheaval in the field. This new era of unprecedented change, with a dynamic interplay of opportunities and challenges, has been brought about by the integration of these technologies into educational frameworks. To better understand the ways that digital technologies are transforming global education, this study will examine the subtle ways in which these technologies are influencing conventional learning paradigms. Examining the growth of virtual classrooms and online learning, the wealth of educational resources available, and the changing roles of instructors and students in the digital classroom, this dynamic of revolution of education to digital education transformed deeply.

The studies aim to provide a thorough understanding by showcasing successful digital education initiatives across the globe through case studies. Through an analysis of the elements that facilitated their achievements and the extraction of lessons from these undertakings, the paper seeks to extract important lessons that can be applied to the larger field of education.

The next section, Opportunities and Challenges for Global Education in the Digital Age, will examine important topics like digital literacy, fair access, moral issues, and efficient use of digital technologies to improve education. This thorough analysis aims to pinpoint obstacles as well as provide workable solutions for maximizing the potential of digital education. We will now turn our attention to the future of global education in the digital age as we wrap up this field of study. The conclusion will highlight how digital technologies will shape this future and stress how crucial worldwide working together is to promoting ongoing advancements in digital education.

By navigating this complex terrain, the research hopes to add to the continuing conversation about the relationship between digital technologies and international education by providing a nuanced viewpoint that helps to clarify the way forward in this constantly changing educational environment.

2. Literature Review

This chapter deals with the curriculum, teaching strategies, features, learning techniques, and goals of the Indian educational system in the ancient and medieval periods, how those systems differed from those in the present, and what lessons the modern education system needs to take away from those earlier periods. The aforementioned characteristics are used to distinguish between the benefits and drawbacks of ancient, medieval, and modern education. Students and teachers will learn about the differences in the educational system as well as future adaptations that need to be made to address all issues through this chapter. (Mangesh M. Ghonge, Rohit Bag and Aniket Singh)

There are two literary contributions from our study. Initially, we formulate and specify the parameters of the process of digital transformation. According to what we learned from our fieldwork, leaders in different industry contexts use different terms to refer to different types of planning and organizing that fall under the umbrella of "digital transformation." We offer an empirically supported definition of digital transformation by utilizing Agarwal and Helfat's (2009) strategic renewal perspective.

Second, we offer empirical insights into the kinds of dynamic capabilities that are digitally based and may be necessary for digital transformation, adding to the body of knowledge on organizational capability. A level of change that has never before been experienced by incumbents has accelerated in the last ten years due to disruptive digital technologies, unexpected consumer behaviours, and disruptive competition. We create a process model to address these quickly shifting environmental conditions, and within it, we identify nine digitally based micro foundations (also called sub-capabilities) that serve as the foundation for the development of digital sensing, digital seizing, and digital transforming capabilities. We report on several capabilities that, taken separately, might apply to nondigital-based change, but when taken as a system, they represent the industry's current understanding of the kinds of dynamic capabilities required to pursue a digital transformation, echoing the findings of Velu (2017). (Karl SR Warner, Maximilian Wäger Long range planning 52 (3), 326-349, 2019)

In this article, we define online learning and all of its variations, examine its multidimensionality, examine historical and contemporary contexts, and make important claims about the issues influencing online learning today. To facilitate the creation of knowledge by scholarly communities that impact research and practice in online learning contexts, we offer five crucial lenses: community, engagement, pedagogy, equity, and design-based research. These lenses draw attention to conceptual overlaps that exist between the works of literature on psychological and online learning. Each of these lenses serves as the organizing principle for the special issue, which also features an article that reflects each one along with commentary that provides a synthesis and critical evaluation. (Christine Greenhow, Charles R Graham, Matthew J Koehler Educational Psychologist 57 (3), 131-147, 2022)

This sheds light on the prevailing perception at the time, which was that education should be fun rather than a chore. College degrees are seen as a way to “prove(ing) that you can do your chores, but they're not for learning,” according to modern critics of formal education like Elon Musk (Aratani, 2020). The tools used in education have improved. Among the first educational tools the Romans used were wax tablets. Pen and paper have nearly entirely been replaced in classrooms today by digital tablets and electric styluses. Since the printing press, digital technology—which includes computers and the internet—represents the second major technological revolution. The potential for teaching and learning in more interesting and approachable ways has been completely revolutionized by such technology, opening the door for "leisurely learning." (Hirushi Muthukumarana, Jana Chalhoub, Stanley Chen).

3. Research Methodology

This study will employ a mixed-method approach combining quantitative and qualitative data collection and analysis methods.

3.1 Research Objectives

- To determine the changes in education due to the advancement of technology in the education sector.
- To examine the transformative dynamics of global education in the digital age which overcomes the shortcomings of traditional education.
- To address regional variances in global education, acknowledging the diverse contexts and perspectives that shape educational experiences worldwide.
- To explore the challenges and opportunities presented by the digital age for global education.

3.2 Research Questions

- How has the integration of digital tools transformed teaching methods in your educationalinstitution?
- In what ways do you believe technology can enhance student engagement and learningoutcomes?
- How well-prepared do you feel educators are in your region to adapt to evolving digitaleducation trends?
- How does your institution address the cultural nuances and sensitivities associated withdigital education content?
- In your opinion, what role should technology play in fostering collaboration and communication among students on a global scale?
- How do you perceive the influence of regional policies on the implementation of digitaltools in education?
- What strategies or initiatives do you believe would be effective in overcoming barriers todigital education adoption in your specific region?

3.3 Data Collection

Primary Data

• Online Survey: Targeting Teachers, Students, Administrators, IT Professionals, etc regionally to gather data on their experiences with digital technologies in education.

Secondary Data

• Review of Existing Literature: Academic journals, educational reports, government websites, studied research papers of different authors on similar topics, and international organizations to explore existing research on similar topics.

• Analysis of Online Data Sources: Educational databases and reports to gather quantitative data and trends.

3.4 Data Analysis

Quantitative Analysis

• Statistical analysis software (SPSS) and AI tools are used to analyze quantitative data from surveys and online sources.

Qualitative Analysis

• Google websites (Google Scholar, Social Samosa) are used to collect and analyze data from research of different authors on similar topics.

Data Triangulation

• Combining quantitative and qualitative findings to strengthen the research conclusions.

3.5 Research Design

Comparative Research Design

Comparing and contrasting the impact of digital technologies in education across different regions.

Case Study Approach

In-depth analysis of implementations of digital technologies in education across different regions.

3.6 Ethical Considerations

• Informed consent is obtained from all participants.
• Data anonymity and confidentiality are maintained.
• Data is stored securely and accessed only by authorized personnel.

4. Transformative Dynamic Of Digital Education

The 21st century is witnessing a significant transformation in the educational landscape, driven by the disruptive power of digital technologies. Virtual classrooms and online learning have expanded the conventional bounds of education while providing never-before-seen accessibility and inclusivity. This change is further exacerbated by the abundance of educational tools and resources, which offer students and teachers a wide range of resources, including immersive virtual worlds and interactive simulations. The roles of educators and students are changing at the same time, with teachers taking on the role of knowledge facilitators and students becoming active participants in their education. This revolutionary path also encompasses pedagogy and curriculum, as digital technologies revolutionize the way education is provided and the content that is taught, introducing cutting-edge techniques like gamified learning and flipped classrooms.

5. Regional Variances in Digital Education

The adoption of digital education across the globe is not a homogeneous phenomenon; rather, it is influenced and complicated by regional differences that are crucial in determining the effectiveness of educational initiatives. The glaring disparity in access to digital infrastructure is an important aspect of these regional differences. There is a significant digital divide because some areas have strong technological ecosystems while others struggle with poor connectivity and lack of access to necessary tools.

This digital divide affects all aspects of educational opportunities. Inequalities in access restrict the reach of virtual classrooms and online learning environments, which in turn perpetuates educational attainment disparities. It becomes essential to close this gap to promote an inclusive and equitable educational environment. Regional variations in digital education are further amplified by cultural and linguistic factors. For digital tool adaptation to be effective, it must be in line with various cultural contexts. Since language serves as a medium for learning, it necessitates sophisticated strategies to make sure that students with different linguistic backgrounds can relate to the instructional material.

The policies and programs that different countries and regions use to address these regional differences are also examined in this section. While some governments concentrate on promoting cultural inclusivity in the production of digital content, others carry out focused interventions to support digital infrastructure. Gaining an understanding of these methods is essential to creating an all-encompassing framework that can meet the various needs of students everywhere.

This study focuses on the challenges of promoting an inclusive education system that is global in scope by navigating the complex web of regional variations in digital education. By acknowledging the distinct obstacles that every area encounters, educators, policymakers, and stakeholders can work together to develop customized solutions that close gaps and guarantee that the transformative potential of digital education is fully realized for all.

6. The Digital Age and Its Impact on Education Systems Around the World

The digital age has revolutionized nearly every aspect of our lives, and education is no exception. Technology has transformed the way we learn, access information, and interact with the world, and its impact on education systems around the world is undeniable.

6.1 Accessibility

Bridging the Gap: Digital technologies have the potential to bridge the educational gap between developed and developing nations. Online resources, open educational resources (OERs), and mobile learning platforms offer unprecedented access to educational content and learning opportunities, especially in remote and underserved areas.

Personalized Learning: Digital tools enable personalized learning experiences, catering to individual learning styles and needs. Students can access learning materials at their own pace, and adaptive learning platforms can adjust the difficulty and pace of instruction based on individual performance.

6.2 Collaboration and Communication

Global Connections: Digital platforms like online communities, collaborative learning tools, and social media facilitate peer-to-peer learning, knowledge sharing, and global partnerships. Students can collaborate and communicate with learners and experts across geographical boundaries, fostering intercultural understanding and international cooperation.

Teacher Collaboration: Digital tools also support collaboration and communication among educators. Online forums, professional development platforms, and learning communities enable teachers to share best practices, discuss challenges, and learn from each other, thereby improving teaching effectiveness.

6.3 Assessment and Evaluation

Real-Time Feedback: Digital technologies provide new tools for formative and summative assessment. Adaptive assessments, e-portfolios, and learning analytics platforms offer real-time feedback and data-driven insights into student progress, allowing teachers to personalize instruction and address learning gaps.

Improved Measurement: Digital tools can also help measure student learning outcomes more effectively. Standardized tests can be administered online, and data can be analyzed more efficiently, providing valuable feedback to educators and policymakers.

6.4 Challenges and Regional Variances

Digital Divide: Despite the benefits, the digital divide remains a significant challenge. Unequal access to technology infrastructure, internet connectivity, and digital devices hinders access to educational opportunities, particularly in developing countries and underserved communities.

Socioeconomic Factors: Poverty, lack of access to electricity, and cultural barriers further exacerbate educational inequalities. These factors limit access to digital learning opportunities and disproportionately impact marginalized communities.

Teacher Training: Integrating technology effectively into education requires trained teachers and supportive educational environments. Many regions lack access to adequate teacher training programs and resources, hindering the effective use of technology in teaching and learning.

Culturally Responsive Teaching: Cultural differences and languages need to be considered when implementing digital tools in education. Culturally responsive teaching approaches are essential to ensure that all students feel valued and included in the learning process.

6.5 Emerging Trends and the Future of Education

Artificial Intelligence (AI): AI-powered technologies like adaptive learning systems, intelligent tutors, and virtual reality simulations are gaining traction and have the potential to personalize learning and provide immersive learning experiences.

Big Data and Learning Analytics: Data-driven insights from student interactions and learning activities are increasingly used to personalize learning experiences, identify learning gaps, and inform instructional decisions.

Cybersecurity and Data Privacy: Concerns about online safety, data privacy, and potential ethical implications of AI and big data require robust regulatory frameworks and ethical considerations.

Digital Equity and Inclusion: Bridging the digital divide and ensuring equitable access to quality digital education for all remains a critical challenge. Collaborative efforts from governments, educational institutions, and civil society organizations are needed to address this issue.

7. Evolution of Education Systems

The main aim of education in ancient India was to develop a person's character, master the art of self-control, bring about social awareness, and conserve and take forward ancient culture.

7.1 India

7.1.1 Pre-Chanakya Period (before 4th century BC):

Oral Tradition: Knowledge was transmitted through storytelling, recitation of scriptures, and direct instruction from teachers.

Limited Resources: Access to written materials was restricted, leading to reliance on memorization and rote learning.

Teacher-centered: Teachers held complete authority, and students were expected to absorbinformation passively.

Religious Focus: Education emphasized understanding scriptures, rituals, and social norms.

7.1.2 Chanakya Period (4th century BC):

Systematic Approach: Chanakya introduced a structured curriculum focusing on logical reasoning, analysis, and critical thinking.

Emphasis on Critical Thinking: Debates and discussions were encouraged to develop intellectual skills and question traditional practices.

Practical Skills: Subjects like economics, politics, warfare, and diplomacy were added to prepare students for real-world applications.

Textbooks and Debates: Textbooks supplemented oral learning, and debates became integral to the curriculum.

Interactive Learning: Students were encouraged to actively participate in their education through discussions and presentations.

7.1.3 Post-Chanakya Period (after 4th century BC):

Rise of Universities: Renowned universities like Nalanda and Vikram Shala were established,fostering knowledge exchange and research.

Specialized Fields: Education became more specialized, with dedicated branches for varioussubjects like medicine, astronomy, and literature.

Increased Access: Although still limited, access to education expanded slightly beyond theprivileged few.

Teacher-Centred Approach: Despite advancements, the teacher-centered model remaineddominant.

Cultural Focus: Education continued to be deeply intertwined with cultural values, emphasizingmoral development and social responsibility.

7.2 Japan

7.1.4 Before 4th Century BC

Kami Worship: Education focused on understanding and respecting the Shinto religion and itsrituals.

Emphasis on Practical Skills: Subjects like martial arts, archery, and calligraphy were prioritizedfor practical applications.

Warrior Training: Education for boys focused on developing skills for combat and leadership,preparing them for their roles as warriors.

7.1.5 During 4th Century BC

Samurai Education: With the rise of the samurai class, education shifted to encompass theBushido code, emphasizing loyalty, honor, and self-discipline.

Bushido Code: Education centered around the principles of Bushido, shaping students into ethicaland skilled warriors.

Calligraphy and Poetry: These arts were incorporated into education to cultivate refinement andcultural appreciation.

7.1.6 After 4th Century BC

Rise of Samurai Schools: Specialized schools emerged to train samurai in military skills,etiquette, and strategy.

Adoption of Western Education: During the Meiji Restoration, Japan adopted

Western educational models, incorporating modern science and technology into the curriculum.

Emphasis on Modernization: Education became instrumental in driving Japan's modernizationand industrialization.

7.3 China

7.1.7 Before 4th Century BC

Oral Tradition: Knowledge transmission relied heavily on oral methods like storytelling andreciting ancient texts.

Confucian Influence: Confucianism played a significant role, emphasizing social order, filialpiety, and respect for authority.

Emphasis on Memorization and Rote Learning: Students were expected to memorize and recitetexts with little emphasis on critical thinking.

7.1.8 During 4th Century BC

Imperial Examinations: A rigorous system of examinations emerged, promoting social mobilityand selecting officials based on merit.

Civil Service Training: Education focused on preparing students for government service,emphasizing subjects like history, literature, and law.

Emphasis on Confucian Classics: The curriculum heavily relied on studying Confucian texts toinstill values and social norms.

7.1.9 After 4th Century BC

Spread of Confucianism: Confucianism became more widespread, solidifying its influence oneducation and society.

Development of Printing: Printing technology facilitated the production of books, making knowledge more accessible.

Emergence of Neo-Confucianism: This new school of thought emphasized self-cultivation and moral development, further shaping educational philosophies.

7.4 COMPARISON

7.4.1 Before 4th Century BC:

Similarities:

All three societies relied heavily on oral tradition for knowledge transmission, with a focus on religious teachings and social norms.

Differences:

India emphasized memorization and rote learning of scriptures. Japan emphasized practical skills like martial arts and archery. China emphasized Confucianism and its values of social order and filial piety.

7.4.2 4th Century BC:

Similarities:

All three societies introduced new elements to their education systems. India saw the rise of Chanakya's systematic approach and specialized fields. Japan embraced the Bushido code and samurai training. China implemented a rigorous imperial examination system.

Differences:

India focused on critical thinking and debate and Japan emphasized warrior skills and loyalty to one's lord while China prioritized civil service preparation and fluency in Confucian texts.

7.4.3 After 4th Century BC:

Similarities:

All three societies experienced further development of their education systems. India saw the rise of renowned universities and increased access to education. Japan adopted Western education models and incorporated modern science and technology. China experienced the spread of Confucianism and the development of printing technology.

Differences:

India retained its emphasis on cultural values and religious teachings. Japan remained focused on warrior training and the Bushido code, eventually merging with Western influences. China's education system remained deeply influenced by Confucianism, evolving into Neo- Confucianism and emphasizing self-cultivation.

8. Case Study of Successful Education Initiatives

Analyzing effective global digital education projects reveals a patchwork of creative solutions and industry best practices that have completely changed the face of education. One notable example is the non-profit Khan Academy, which democratizes access to high-quality education globally by providing free online courses. It demonstrates the power of personalized digital education by customizing lessons based on individual progress through a mastery-based learning approach. Furthermore, Estonia has demonstrated a national commitment to utilizing digital technologies through its e-government and e-education initiatives. Estonia has led the way in promoting a society that is digitally literate by incorporating digital tools into government services and classrooms.

One notable case study is the Smart Education initiative in South Korea, which uses big data and artificial intelligence (AI) to personalize learning. This project has an impact that transcends national boundaries and provides insights into how cutting-edge technologies may influence education in the future.

All of these case studies demonstrate how crucial flexibility, inclusivity, and an optimistic outlook are to the success of digital education programs. They emphasize how important it is to integrate technology strategically while keeping a close eye on the various learning needs of students. As we learn from these success stories, we uncover a wealth of information that can direct the continuous development of international education in the digital era.

9. Data Interpretation

9.1 Revolutionizing Teaching Approaches:

A substantial 57.4% of respondents highlighted a noteworthy impact of digital tools on teaching methods, with an additional 31.5% recognizing a moderate influence. Only 9.3% reported minimal impact, while a mere 1.9% claimed no discernible effect, underlining the widespread recognition of the transformative potential inherent in digital tools for education.

9.1.1Roles Played by Digital Tools in Education Surge in Online Learning Platforms: Educators are embracing online learning platforms for flexible content delivery, providing students with convenient and personalized access to course materials and interactions.

Utilization of Digital Resources: Supplementary digital resources such as eBooks, videos, and simulations enrich traditional materials, fostering increased engagement and interactivity in the learning process.

Harnessing Social Media: Social media is cultivating virtual communities for students to connect and discuss course material, as a valuable source of news and information relevant to their studies.

Integration of Mobile Devices: Mobile devices, including smartphones and tablets, enable on-the-go access to learning materials, enhancing accessibility and convenience for students throughout their educational journey.

9.1.2Future Outlook

The data strongly suggests an ongoing expansion of the role of digital tools in education. As technology progresses, educators stand to gain access to even more potent tools, potentially ushering in a revolutionary transformation of teaching and learning methods on a global scale.

9.2 Impact of Technology on student learning

The data suggests that technology is having a significant impact on education, with the majority of respondents (77.8%) reporting that it has transformed teaching methods in their educational institutions. This is likely since technology can provide several benefits for both teachers and students, such as:

Increased access to information and resources: Technology can give students access to a wealth of information and resources that would not be possible without it. This includes online textbooks, articles, videos, and other materials.

Improved communication and collaboration: Technology can help students and teachers communicate and collaborate more easily, both inside and outside of the classroom. This can be done through online forums, chat rooms, video conferencing, and other tools.

9.2.1Personalized learning:

Technology can be used to personalize learning experiences for individual students. This can be done through adaptive learning software, which adjusts the difficulty of the material based on the student's progress, and other tools.

Assessment: Technology can be used to assess student learning in a variety of ways, including online quizzes, tests, and portfolios. This can provide teachers with valuable feedback that they can use to improve their instruction.

The data also suggests that there are some regional variances in the impact of technology on education. Respondents from developed regions were likelier to report that technology has transformed teaching methods in their educational institutions than respondents from other regions. This is likely due to several factors, such as the availability of technology and infrastructure, and the level of investment in education.

9.1.1 Ways to Enhance Student Engagement and Learning Outcomes

Based on the data, technology can be used to enhance student engagement and learning outcomes in several ways, including:

Using virtual collaboration platforms: Virtual collaboration platforms can be used to create online communities where students can connect and work on projects together. This can help to improve student engagement and collaboration skills.

Using interactive multimedia content: Interactive multimedia content, such as videos, games, and simulations, can make learning more engaging and interactive. This can help students to retain information more effectively.

Providing personalized learning experiences: Personalized learning experiences can help to meet the individual needs of each student. This can be done through adaptive learning software, online tutoring, and other tools.

Using technology for assessment: Technology can be used to assess student learning in a variety of ways, including online quizzes, tests, and portfolios. This can provide teachers with valuable feedback that they can use to improve their instruction.

9.3 Integration of Technology in Education

The integration of technology in education has witnessed a paradigm shift, with a focus on global collaboration and connectivity. This paper explores the significance of technology in facilitating virtual exchanges, supporting joint projects, and connecting classrooms internationally.

A. Facilitating Virtual Exchanges (35.2%): The highest percentage of respondents emphasized the importance of technology in enabling virtual exchanges. This indicates a strong belief in the role of technology in connecting students from diverse backgrounds.

B. Supporting Joint Projects (31.5%): Following closely, a significant percentage acknowledges the value of technology in supporting joint projects. This underscores the belief that technology can catalyse collaborative endeavors among students globally.

C. Connecting Classrooms Internationally (31.5%): Similar to supporting joint projects, a substantial percentage recognizes the role of technology in connecting classrooms internationally. This suggests a shared belief in the potential of technology to break down geographical barriers in education.

9.3.1 Technological Tools for Global Collaboration

A. Virtual Exchange Programs: Utilizing video conferencing, chat rooms, and online forums to facilitate interaction among students from different countries.

B. Collaborative Online Learning: Engaging students in joint projects and assignments using online tools and resources to enhance teamwork skills and cultural awareness.

C. Global Online Communities: Leveraging online platforms to connect students globally, fostering idea-sharing, discussions, and collaborative projects.

9.3.2 Supporting Joint Projects:

Technology can be instrumental in supporting collaborative endeavors such as research projects, digital product creation, or cultural events. These projects contribute to the development of teamwork skills, cultural awareness, and problem-solving abilities.

9.3.3 Connecting Classrooms Internationally:

Utilizing video conferencing, online presentations, and live streaming events to connect classrooms globally. This fosters cross-cultural learning, promoting understanding and tolerance among diverse student populations

9.4 Overcoming Barriers to Digital Education Adoption: A Regional Perspective

The transformative dynamics of global education in the digital age present both opportunities and challenges. This research focuses on understanding the regional variances in overcoming barriers to digital education adoption. The data analysis reveals key strategies identified by respondents, shedding light on effective approaches tailored to specific regions.

9.4.1Regional Strategies for Overcoming Barriers Professional Development for Educators (40.7%): Educators play a pivotal role in the successful integration of digital tools in the classroom. The data underscores the significance of investing in professional development programs to equip educators with the necessary skills and knowledge. This strategy reflects a shared belief among respondents that empowering educators is fundamental to overcoming barriers to digital education adoption.

Increased Investment in Technology Infrastructure (35.2%): Recognizing the vital role of technology infrastructure, respondents highlight the need for increased investment. This involves providing schools with essential hardware, software, and internet connectivity. The data suggests that bolstering technology infrastructure is perceived as a crucial step to facilitate effective digital education initiatives regionally.

Policy Changes (24.1%): Respondents acknowledge the impact of policy changes in addressing barriers to digital education adoption. This includes policies that allocate funding for technology infrastructure and professional development for educators. Moreover, respondents emphasize the importance of policies mandating the integration of technology in schools, indicating a need for regulatory support to drive digital education initiatives.

9.5 The Impact of Regional Policies on the Implementation of Digital Tools in Education

This research paper aims to examine the influence of regional policies on the adoption and integration of digital tools in educational settings. The analysis presented here is derived from a dataset comprising 54 responses, providing insights into how regional policies shape the implementation of technology in education.

9.5.1Influence of Regional Policies:

Positive Impact: The majority of respondents (79.6%) perceive a positive influence of regional policies on the implementation of digital tools in education. This positive perception may be attributed to government initiatives that allocate funding and resources to schools, enabling investments in technology. Additionally, policies fostering the development of digital literacy skills among both students and educators contribute to this favourable outlook.

Neutral Impact: A significant minority (18.5%) of respondents express a neutral stance on the influence of regional policies. This suggests that there is an opportunity for improvement in the development and implementation of policies to ensure equitable access to resources and support for effective integration of digital tools across all regions.

Negative Impact: A small percentage (1.9%) of respondents perceive a negative influence of regional policies. Potential reasons for this negative perception include policies that may be overly restrictive or fail to address the diverse needs of learners adequately. Further investigation is required to pinpoint the specific challenges contributing to this negative assessment.

10. Challenges And Opportunities For Global Education In The Digital Age

A paradigm shift in global education has been brought about by the digital age, which presents a range of opportunities and challenges that require careful consideration. Making sure everyone has fair access to high-quality digital education is a major obstacle. Educational disparities are made worse by differences in the resources and infrastructure of technology. The digital age simultaneously creates a world of opportunities that go beyond conventional boundaries. Acquiring proficient digital literacy and critical thinking abilities presents a significant prospect, endowing students with the ability to maneuver through an ever-more intricate and interconnected world.

One of the main challenges is addressing the digital divide, as millions of people worldwide lack access to basic digital tools. But in taking on this task, a significant chance to close gaps and promote digital equity presents itself. Exploring the potential of using digital technologies to improve teaching and learning is another opportunity worth considering. These resources provide avenues for immersive and captivating educational experiences, ranging from virtual reality applications to interactive simulations.

Teaching pupils about the opportunities and challenges of the digital age becomes a two-edged sword. Digital fluency is becoming more and more necessary in the job market, but there are ethical issues with data privacy, online behaviour, and cyber security that make a balanced approach to digital education necessary. Maintaining this equilibrium is essential to raising a generation capable of realizing the full promise of the digital age.

11. Findings

Technology is revolutionizing education, creating a more connected, personalized, and engaging learning experience for students worldwide. Digital tools are breaking down geographical barriers, providing access to a wealth of educational resources, and fostering collaboration among diverse learners. Educators can leverage technology to personalize learning, cater to individual styles, and provide immediate feedback. VR and AR technologies create immersive learning environments, enhancing understanding and promoting critical thinking skills. Digital platforms connect students and educators across continents, fostering intercultural understanding and teamwork skills. However, regional disparities in technology access and cultural factors require tailored approaches. Investing in infrastructure, promoting digital literacy, and adapting teaching practices are crucial to bridging the digital divide and ensuring equitable access for all.

While challenges exist, including the digital divide and ethical considerations, the opportunities are vast. AI and big data can further personalize learning, while digital tools can empower students to become self-directed and lifelong learners. By embracing technology and addressing existing challenges, we can create an inclusive global learning environment, that engaging, and prepares students for the future. This requires collaboration between educators, policymakers, and technologists to ensure equitable access and effective implementation, ultimately creating a world where every student can thrive.

12. Conclusion

This exploration’s journey reveals a story of opportunities seized for advancement and challenges met with creativity as we find ourselves at the nexus of traditional education and the revolutionary waves of the digital age. With the emergence of online learning, an abundance of resources, and a profound change in the roles of educators and students, the transformative dynamics of digital education have completely reshaped the traditional classroom. The complexity of regional variations highlights the need for customized strategies that take into account policies promoting digital equity, cultural quirks, and accessibility.

The way forward is illuminated by the case studies of effective digital education initiatives, which act as beacons. Initiatives that demonstrate the potential for inclusivity, adaptability, and the strategic integration of technology are the Khan Academy and Estonia's digital literacy drive. But there are obstacles in the way of success. The persistence of the digital divide presents obstacles to fair access, and the need for digital literacy serves as a rallying cry for extensive changes to the educational system.

As we acknowledge the difficulties and possibilities facing international education in the digital era, we must also address the need to guarantee equitable access, develop critical digital literacy, and handle moral dilemmas. A careful balance between seizing the opportunities presented by technology and tackling the problems it has brought about is required for the journey ahead.

The success of international cooperation and collaboration is critical to the future of global education in the digital age. It requires a group effort to promote diversity, welcome creativity, and navigate the changing environment while keeping a close eye on the global variety that shapes educational experiences. Upon wrapping up this investigation, there is no doubt about the need to create a future in which digital education acts as a spur for empowerment, inclusivity, and positive change on a global scale.

13. Suggestions

Traditional Texts in Modern Learning

Integrating traditional texts into modern learning offers students a unique opportunity to enhance their education. These texts not only provide knowledge and skills but also help students develop a strong sense of cultural identity and belonging. By engaging with different perspectives and interpretations presented in these texts, students sharpen their critical thinking skills and learn to question assumptions. This ability to think critically equips them to navigate the complexities of the modern world. Additionally, incorporating traditional texts into digital education provides historical context and deepens students' understanding of societal evolution. Overall, the integration of traditional texts in modern learning enriches students' education on a profound level.

To effectively integrate traditional texts into digital classrooms, several actions are crucial. Age- appropriate curriculum materials encompassing scriptures, holistic texts, and historical narratives must be developed. These materials should be engaging and accessible to accommodate diverse learning styles. Next, incorporating interactive learning methods, such as simulations, online discussions, and collaborative projects, is essential to foster student engagement and active interpretation of the texts. Finally, equipping teachers with the necessary training and resources to effectively utilize traditional texts in their teaching is critical. This training should enable them to facilitate meaningful discussions, guide students in critical interpretation, and foster a culturally inclusive and respectful learning environment.

Inclusion of Digital Education

Digital education opens doors to a world of possibilities, breaking down barriers and making quality education accessible to everyone. This empowers individuals from diverse backgrounds, creating a more inclusive learning environment. Through personalized platforms, students learn at their own pace, exploring areas of interest and receiving targeted support. This fosters engagement and ownership of their learning journey. Digital tools go beyond individual learning, creating virtual spaces for collaboration and global connections. Students connect with peers, experts, and professionals, developing essential communication and teamwork skills while gaining invaluable insights into diverse perspectives.

To revolutionize digital education, we need to do three things. First, we must ensure that all learners have equal access by investing in infrastructure, devices, and internet connectivity. We also need to develop diverse educational resources that cater to different learning styles and needs. Second, we need to go beyond just delivering content and create engaging online learning platforms. These platforms should incorporate multimedia, Gamification, and personalized dashboards for tracking progress. They should also offer flexible learning paths, including self- paced modules and adaptive learning technologies. Lastly, we need to empower educators through comprehensive training. This includes teaching them how to effectively integrate digital tools into their teaching practices, develop curriculum, and use digital tools for assessment and feedback. By fostering a collaborative learning community among educators, we can share best practices and troubleshoot challenges.

Short-Term Online Courses Based on Ancient Education

In our fast-changing world, ancient philosophies offer valuable insights for personal growth. These time-tested principles, like those found in Stoicism or Buddhism, can be applied to our modern lives through short online courses. These courses will not just teach facts but also help you develop essential life skills like critical thinking, self-awareness, and emotional intelligence. Mindfulness practices like meditation will also be incorporated to enhance your well-being and foster inner peace. Unlike traditional education, these courses encourage self-directed learning and personal exploration. This empowers you to take charge of your journey and discover what truly matters to you.

To maximize the potential of this approach, the following can be followed:

Collaboration with Experts: Partnering with renowned scholars and practitioners of ancient education is crucial to ensure the quality and authenticity of the online courses. This collaboration offers access to specialized knowledge and ensures the courses are grounded in a strong foundation of historical and philosophical understanding.

Blended Learning: A Rich and Engaging Experience: Combining online modules with practical workshops and interactive activities creates a richer and more engaging learning experience. This blended approach allows participants to delve deeper into concepts, apply their learning in real- world scenarios, and receive personalized feedback from instructors and peers.

Short-Term Design: Offering courses as short, focused modules allows learners to fit them into their busy schedules and concentrate on specific areas of interest. This design also makes the courses more accessible to individuals with limited time or resources.

Accessibility: By offering the courses online, we can make them accessible to a wider audience, regardless of location or background. This can contribute to a more inclusive and democratized learning environment.

Gurukul-Inspired Learning Experiences

Gurukul education fosters close-knit communities where students live and learn together, nurturing a sense of belonging, mutual support, and shared responsibility. Collaborative learning through discussions, debates, and storytelling develops strong communication skills, critical thinking abilities, and the ability to collaborate effectively. Additionally, students are responsible for daily chores, contributing to the community's well-being and instilling self-discipline, responsibility, and independence, preparing them to be self-reliant and navigate life's challenges with resilience. To bring the essence of Gurukul into modern learning environments, several recommendations are proposed:

Immersive Gurukul Camps or Retreats: Organizing short-term residential camps or retreats allows students to experience the traditional Gurukul way of life first-hand. This includes living together, sharing responsibilities, and participating in activities that promote community building and self- reliance.

Hands-on Activities, Service Learning, and Community Engagement: Integrating hands-on activities, service learning projects, and community engagement opportunities into the curriculum provides practical learning experiences that foster a deeper understanding of oneself and one's place in the world.

Age Restrictions for AI Access in Education

As AI becomes more common, we need to carefully consider its use in education. While AI can be great for learning, we need to make sure students still think for themselves and don't rely too heavily on AI tools. We also need to be aware of bias in AI and make sure students can critically evaluate the information they find. By taking these steps, we can ensure that AI enhances learning without harming students' development.

While AI holds immense potential to enhance education, unfettered access can hinder independent thinking, creativity, and critical evaluation. Age-appropriate restrictions encourage self-directed learning, mitigate bias risks, and foster responsible AI use. This can be achieved through thoughtful implementation of age-specific limitations, educator training, and AI literacy programs, empowering students for a future where AI augments learning without compromising critical skills.

Educational institutions should carefully assess the appropriate age for introducing students to diverse AI tools and resources, considering the complexity, potential risks, and student development stages. Equipping educators with knowledge of responsible AI use, including recognizing and mitigating algorithmic bias and fostering critical evaluation of AI-generated information, is crucial. Students, in turn, require AI literacy skills to understand and use AI ethically and effectively. To navigate the complexities of AI and contribute to responsible AI solutions, students need access to educational programs focused on AI literacy and ethics, empowering them to make informed decisions about AI use.

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11. Overcoming challenges in the Indian mutual fund industry: A conceptual study

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Abstract

The mutual fund business in India is struggling with a number of issues, which are investigated in this research study. Several challenges stand in the way of the industry's advancement, despite the fact that it is experiencing tremendous expansion and the interest of investors is growing. The complexity of regulations, the volatility of the market, the knowledge of investors, distribution problems, and technical improvements are all examples of these hurdles. The study intends to provide a thorough understanding of the challenges that mutual funds confront in India by analysing these aspects, and it will also suggest solutions to overcome these challenges in order to maintain sustained growth.

Keywords: Mutual funds, challenges, AUM

1. Introduction

In recent years, mutual funds have gained a lot of momentum among regular Indian investors. Collective investment vehicles allow investors to pool their resources and put them into diversified portfolios overseen by experienced financial experts. In the last ten years, the Indian mutual fund sector has experienced significant expansion, driven by many causes such as increasing investor knowledge, positive regulatory changes, and the country's growing economy.

The increase in mutual fund investments can be credited to the collaborative endeavours of industry participants to inform investors about the advantages of mutual funds, including diversification, professional management, and the possibility for higher returns in comparison to conventional savings products. The "Mutual Funds Sahi Hai" campaign, initiated by AMFI, has been instrumental in clarifying the complexities of mutual fund investing and promoting involvement across diverse investor groups.

The mutual fund regulatory changes led by the Securities and Exchange Board of India (SEBI). Measures including the implementation of direct plans, setting a limit on the Total Expense Ratio (TER), and improving transparency and disclosure standards have been put in place to safeguard investors and foster a just and effective market atmosphere. The implementation of these regulatory measures has enhanced the accessibility and affordability of mutual funds, thereby heightening their attractiveness to individual investors.

Furthermore, India's robust economic growth has created a favourable environment for the growth and development of the mutual fund business. With increasing wages and more financial understanding, more people are considering mutual funds as a realistic means of generating wealth.

Notwithstanding these favourable advancements, the mutual fund sector in India encounters various obstacles that hinder its continued advancement. The requisite regulatory intricacies, although essential for maintaining market integrity, frequently place substantial compliance difficulties on fund houses. The conventional distribution paradigm, which mainly depends on middlemen, escalates expenses and occasionally leads to conflicts of interest. Finally, the incorporation of technology progress, while advantageous, necessitates significant financial commitment and presents cyber security vulnerabilities.

This study seeks to thoroughly examine the complex difficulties and put-up strategic solutions to effectively tackle them. The goal is to provide practical insights that will assist stakeholders in navigating these hurdles and facilitating sustainable growth, ultimately improving investor confidence and contributing to the overall advancement of the Indian financial system.

Objective

This paper aims to explore challenges faced by mutual fund industry and propose potential solutions.

Methodology

This conceptual study on overcoming challenges in the Indian mutual fund industry employs a qualitative approach, primarily relying on secondary data sources. The methodology of this conceptual study is thus comprehensive, combining a robust review of existing literature, empirical data analysis, and an evaluation of regulatory and market factors. The research integrates insights from various academic journals, industry reports, regulatory publications, and statistical data provided by organizations such as the Association of

Mutual Funds in India (AMFI) and SEBI.

In order to understand the current challenges encountered by the Indian mutual fund sector, a comprehensive literature study was undertaken. Key sources such as Ghosh (2020), Singh and Yadav (2019), and Patel and Joshi (2019) provided foundational understanding and highlighted critical areas of concern within the industry. The study involved examining historical and current trends in mutual fund investments, particularly focusing on the growth of Assets Under Management (AUM) from 2010 to 2023. Data from AMFI and other industry reports were used to track these trends and identify phases of growth and the factors driving these changes. Furthermore, the research included an evaluation of market dynamics, incorporating data on market volatility and its effects on mutual fund performance. Reports from financial analysis firms such as Morningstar provided empirical data on market fluctuations and their impact on mutual funds.

Literature Review on Challenges of Mutual Funds in India

Ghosh (2020) highlighted the intricate regulatory landscape governing mutual funds in India, emphasizing the role of the Securities and Exchange Board of India (SEBI) in ensuring market stability and investor protection. Frequent changes in regulations, such as the Total Expense Ratio (TER) cap and disclosure norms, have increased operational costs and uncertainties for fund managers, complicating compliance efforts and potentially impacting profitability.

Sinha and Sharma (2018), study shows that the Indian population lacks adequate knowledge about mutual funds. This knowledge gap hinders the growth of the industry as many investors prefer traditional investment options like fixed deposits and gold. The study recommends targeted investor education programs to enhance awareness and understanding of mutual funds.

Kumar (2020) examined the distribution challenges faced by mutual funds in India. Despite the growth of digital platforms, traditional distribution channels remain dominant. The reliance on intermediaries, such as financial advisors and distributors, increases acquisition and servicing costs. Moreover, the commission-based model often leads to conflicts of interest, with intermediaries favouring higher-commission products over those best suited to investors' needs.

Patel and Joshi (2019) discussed the gradual adoption of technological advancements in the mutual fund industry. Integrating technology into portfolio management, investor servicing, and compliance requires significant investment and expertise. The lack of a robust technological infrastructure and cybersecurity concerns further hinders the adoption of digital solutions, necessitating balanced regulatory frameworks that support technological innovations.

Desai (2019) analysed the impact of broader economic conditions on the mutual fund industry. Economic downturns and policy changes can significantly affect fund performance and investor sentiment. The study highlights the need for mutual fund companies to adapt their strategies in response to economic shifts to protect investor interests and ensure stable returns.

Rao (2020) discussed the implications of recent regulatory reforms on the mutual fund industry. While reforms aim to enhance investor protection and market stability, they also pose challenges for mutual fund companies in terms of compliance and operational efficiency. The study suggests that a balance between stringent regulations and operational flexibility is necessary for the industry's growth.

Mehta and Patel (2021) examined the transformation of distribution channels in the mutual fund industry. The shift towards digital platforms offers opportunities for wider reach and reduced costs. However, traditional channels remain influential, and the transition requires strategic planning to ensure a seamless experience for investors.

Bansal (2019) studied investor behaviour in selecting mutual funds. Factors such as past performance, brand reputation, and advice from financial advisors' influence investor decisions. The study emphasizes the importance of understanding investor preferences and tailoring products and services to meet their expectations.

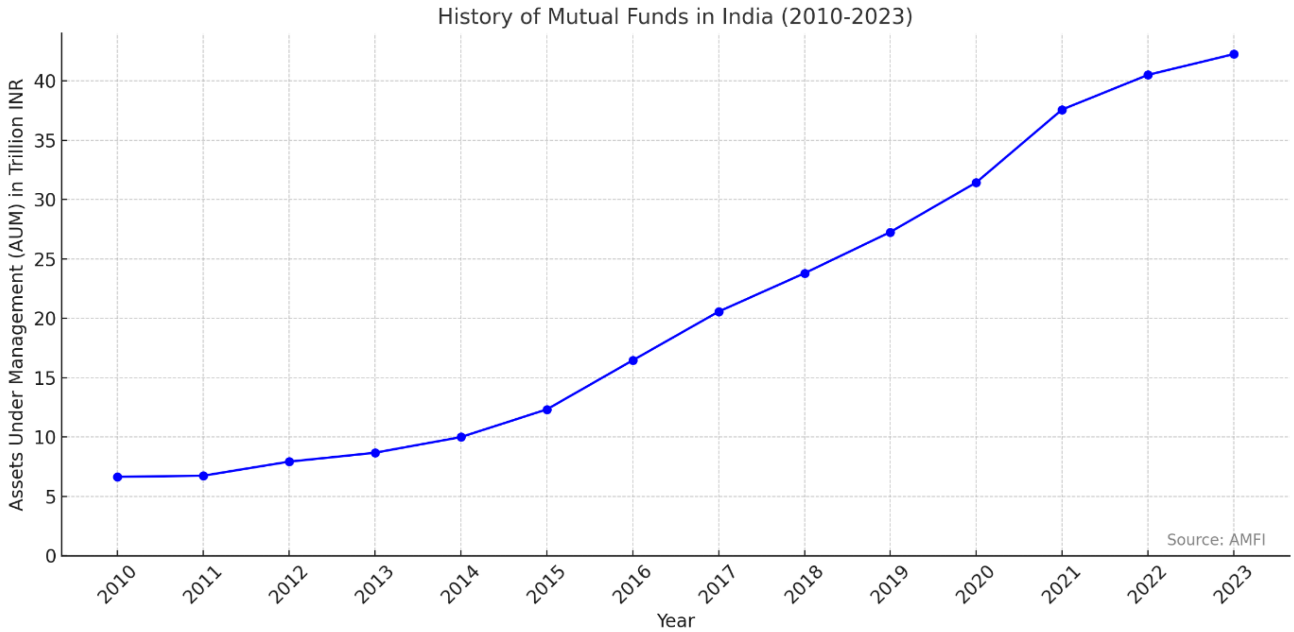
Nair and Reddy (2020) explored the interplay between technological innovations and regulatory challenges in the mutual fund industry. The adoption of technologies like robo-advisors and blockchain transactions offers efficiency gains but also requires regulatory adaptations to ensure compliance and security.

Sharma and Verma (2018) investigated the role of financial literacy in investment choices. The study found that higher financial literacy levels lead to more informed and diversified investment decisions. Enhancing financial literacy through educational initiatives can drive greater participation in mutual funds.

Mukherjee (2020) analysed how economic policies impact the mutual fund industry. Policies related to taxation, interest rates, and capital markets directly influence fund performance and investor behaviour. The study suggests that mutual fund companies need to stay abreast of policy changes and adjust their strategies.

Raj and Iyer (2021) discussed the ongoing digital transformation in the mutual fund industry. Digital platforms offer benefits such as enhanced accessibility, reduced costs, and improved investor engagement. However, the transition also presents challenges related to technological integration, cybersecurity, and regulatory compliance.

History of Mutual Funds in India (2010-2023)



Source: AMFI (Association of Mutual Funds in India)

The graph showcases the remarkable growth trajectory of the mutual fund industry in India from 2010 to 2023, focusing on the increase in Assets Under Management (AUM).

1. **2010-2012: Steady Growth**

The period from 2010 to 2012 shows a steady increase in AUM. The mutual fund industry was recovering from the global financial crisis of 2008, and investor confidence was gradually being restored. The AUM grew from ₹6 trillion in 2010 to around ₹7.5 trillion by the end of 2012.

2. **2013-2015: Acceleration Phase**

From 2013 onwards, the industry began to gain momentum, driven by favourable market conditions and increased investor participation. By 2015, the AUM had reached approximately ₹13 trillion. This phase saw significant regulatory support and the launch of investor awareness programs like "Mutual Funds Sahi Hai."

3. **2016-2018: Rapid Expansion**

The years 2016 to 2018 marked a phase of rapid expansion for mutual funds in India. The AUM surged from ₹14.8 trillion in 2016 to ₹22.86 trillion by December 2018. Key factors contributing to this growth included demonetization, which led to a shift from physical savings to financial assets, and the implementation of the Goods and Services Tax (GST), which improved the formalization of the economy.

4. **2019-2021: Regulatory Reforms and Market Volatility**

During this period, the industry faced challenges such as regulatory changes and market volatility. Despite these challenges, the AUM continued to grow, reaching ₹31 trillion by the end of 2021. Regulatory measures like the introduction of direct plans and the reduction in Total Expense Ratio (TER) aimed at improving transparency and cost-effectiveness for investors.

5. **2022-2023: Resilience and Recovery**

The most recent years, 2022 and 2023, highlight the resilience of the mutual fund industry in the face of global uncertainties, including the COVID-19 pandemic. The AUM saw a significant jump, reaching ₹42.24 trillion by December 2023. This growth was driven by increasing investor awareness, technological advancements, and a recovering economy.

The graph demonstrates the sustained growth of the mutual fund industry in India over the past decade, reflecting increased investor trust and participation. This upward trend is attributed to a combination of favourable regulatory changes, economic expansion, and effective investor education initiatives. Despite facing challenges such as market volatility and regulatory complexities, the mutual fund industry has shown remarkable resilience and

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adaptability, positioning itself as a vital component of India's financial ecosystem.

Discussion

Growth of the Mutual Fund Industry

Rising Investor Awareness

According to AMFI's latest data, the number of mutual fund folios reached an all-time high of over 12 crores by December 2023, reflecting a growing retail participation in mutual fund schemes (AMFI, 2023). These educational initiatives have played a crucial role in demystifying mutual funds for the average investor, encouraging a broader segment of the population to consider them as a viable investment option.

Favorable Regulatory Changes

Initiatives such as the introduction of direct plans, reduction in the Total Expense Ratio (TER), and enhanced disclosure norms have aimed to protect investors and promote transparency. For instance, the reduction in TER, effective from April 2019, has made mutual funds more cost-effective for investors, thereby increasing their attractiveness (SEBI, 2019). These regulatory reforms have not only enhanced investor protection but have also contributed to a more efficient and competitive market, encouraging greater participation and investment.

Expanding Economy

India's economic growth has also played a crucial role in the expansion of the mutual fund industry. The mutual fund industry's Assets Under Management (AUM) reached ₹42.24 trillion in December 2023, up from ₹22.86 trillion in December 2018, indicating significant growth in a relatively short period (AMFI, 2023). This growth reflects the increasing financial literacy among the Indian population and the shift towards market-linked investments, driven by the quest for higher returns and wealth creation.

Challenges Facing the Mutual Fund Industry

Despite this growth, this industry in India faces several challenges that impede its further development.

Regulatory Complexities

While regulations are essential for maintaining market integrity and protecting investors, the frequent changes and stringent requirements imposed by SEBI can create challenges. Compliance with evolving regulations often leads to increased operational costs and uncertainties for fund managers. For example, the implementation of the TER cap has squeezed margins for many fund houses, necessitating more efficient operations to maintain profitability (SEBI, 2019). This regulatory burden, while aimed at protecting investors, can sometimes stifle innovation and flexibility within the industry, impacting its overall growth and sustainability.

Market Volatility

Market volatility remains a significant challenge for mutual funds in India. The Indian stock market is known for its unpredictability, influenced by both domestic and global factors. Events such as the COVID-19 pandemic and geopolitical tensions have caused substantial market fluctuations. According to a report by Morningstar, the average equity mutual fund in India experienced a drawdown of over 35% during the market crash in March 2020, highlighting the vulnerability of mutual funds to market shocks (Morningstar, 2020). This volatility can lead to substantial losses for investors, undermining confidence in mutual funds as a stable investment vehicle.

Investor Awareness and Education

Despite the progress made in investor education, a large portion of the population still lacks adequate knowledge about mutual funds. Many investors are wary of market-linked instruments and continue to prefer traditional savings options. The complexity of mutual fund products and financial jargon further deters potential investors. A survey by SEBI in 2022 revealed that only 27% of the respondents were familiar with the concept of mutual funds, underscoring the need for more comprehensive educational initiatives (SEBI, 2022). Enhancing investor education and simplifying communication around mutual fund products are crucial for broadening the investor base.

Distribution Challenges

The distribution of mutual funds in India is another area of concern. While digital platforms have made it easier for investors to access mutual fund products, traditional distribution channels still dominate. The reliance on intermediaries like financial advisors and distributors increases the cost of acquiring and servicing investors. Additionally, the commission-based model can lead to conflicts of interest, with intermediaries sometimes prioritizing higher-commission products over those that are best suited to investors' needs. Streamlining distribution channels and transitioning to more transparent models can help mitigate these issues.

Technological Advancements

Integrating technological advancements into mutual fund operations presents both opportunities and challenges. While technology can enhance portfolio management, investor servicing, and compliance, significant investment and expertise are required to implement these solutions effectively. Moreover, concerns around cyber security and the lack of robust technological infrastructure can hinder the adoption of digital tools. A report by PwC in 2023 highlighted that only 40% of mutual fund companies in India had fully integrated digital solutions into their operations, indicating a significant scope for improvement (PwC, 2023). Embracing technology while ensuring robust cyber security measures is essential for the industry's modernization and growth.

Suggestions

1. Regulatory Simplification: Streamline regulatory processes and provide clear guidelines to reduce compliance burdens and enhance operational efficiency.
2. Risk Management Strategies: Develop robust risk management frameworks to mitigate the impact of volatility on mutual fund portfolios.
3. Investor Education: Implement targeted investor education programs to increase awareness and understanding of mutual fund products.
4. Distribution Model Reform: Transition to a fee-based advisory model and leverage digital distribution channels to reduce costs and improve investor experience.
5. Technological Integration: Invest in technological infrastructure and cybersecurity measures to facilitate the adoption of digital solutions in mutual fund operations.
6. Regulatory Adaptation: Evolve the regulatory framework to accommodate technological innovations and ensure a balance between innovation and compliance.

By implementing these recommendations, the mutual fund industry in India can overcome its challenges and continue to grow sustainably, benefiting both investors and the broader financial market.

Conclusion

The mutual fund industry in India is poised for continued growth, but several challenges must be addressed to realize its full potential. Regulatory complexities, market volatility, investor awareness, distribution issues, and technological advancements are key hurdles that need strategic solutions. Collaborative efforts between regulatory authorities, mutual fund companies, and industry stakeholders are essential to create a conducive environment for mutual fund growth. By addressing these challenges, the industry can enhance investor trust, improve operational efficiency, and contribute to the overall development of the Indian financial market.

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12. Changing dynamics of global education: Studying the impact of digitalization on global education

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Abstract

In the domain of education, the process of incorporating technology in tandem with educational processes and practices is called as digitalization. It involves using digital tools, resources, and platforms to enhance teaching and learning experiences. Digitalization has transformed traditional classrooms into digital learning context, providing students a doorway to a wide range of educational resources, interactive learning materials, and collaborative opportunities. Digitalization in education has also facilitated personalized learning, allowing students to learn at their own pace and explore topics of interest more engagingly and interactively. Expanded educational access, reaching learners in remote areas and providing opportunities for lifelong learning. It ensures equitable access to technology and digital skills training to bridge the digital divide and guarantee the digitalization advantage to one and all. Digitalisation in education has the latency to revolutionize the way students learn, making education more engaging, accessible, and effective in preparing students for the digital era.

Keywords: - Digitalization, Equitable Access, Engaging, Accessible, Revolutionize, Global Education

Introduction

Transformative shifts across various dimensions mark the evolving dynamics of global education. Technological advancements have been a primary driver, facilitating a move from conventional classroom settings to digital platforms. The acceleration of online learning has democratized the gateway to education, delimiting geographical barriers and enabling learners to connect with educational resources globally. The globalized nature of education has led to increased diversity in student populations. Institutions are placing greater emphasis on inducing comprehensive learning environments that celebrate various perspectives and cultural backgrounds. This cultural integration prepares students to navigate an interconnected world and promotes a more comprehensive understanding of global issues. In terms of pedagogy, there's a growing emphasis on developing skills relevant to the contemporary landscape. Beyond traditional subject knowledge, educators are focusing on fostering critical thinking, creativity, and adaptability. This shift aligns with the demands of a volatile job market, where soft skills and the ability to navigate complex challenges are highly valued, and involve a reevaluation of assessment methods. Educators are exploring innovative ways to measure student progress, moving away from rigid standardized testing towards more holistic approaches that gauge a student's ability to apply knowledge in real-world scenarios. These changes collectively aim to equip learners with the skills and perspectives necessary to succeed in an interconnected and dynamic global society.

Objectives

•To Analyze how digital tools and platforms have enhanced access to educational resources globally, especially in remote or underserved areas.

•To Assess the effectiveness of digital tools in improving the quality of education, such as personalized learning, interactive content, and adaptive learning systems.

•To Understand how digitalization has addressed or exacerbated disparities in access to education across different socio-economic backgrounds, regions, and demographics.

•To Investigate changes in teaching methodologies, student engagement, and collaborative learning fostered by digital technologies.

Importance

Private Sector

1. Adaptive Learning: Digital platforms use algorithms to personalize learning paths for individual students. By analyzing learning patterns and preferences, these platforms offer tailored content and pacing, optimizing learning outcomes.

2. Global Expansion: Online education allows private institutions to reach far-off geographical boundaries. It would be possible to draw students from all regions and diverse backgrounds without the constraints of physical location, increasing revenue streams.

3. Innovative Teaching Methods: Digital tools enable the integration of multimedia, simulations, and interactive content, fostering engaging and immersive learning experiences. This modern approach can captivate learners and enhance their understanding of complex concepts.

Public Sector

1. Social Development and Cohesion: Education can play a purposeful part in fostering social inclusion, reducing inequality, and promoting societal cohesion. A well-educated society is liable to be tolerant, cohesive, and supportive of social welfare initiatives, reducing social tensions and enhancing community resilience—directly impacting public sector efforts in social services and community development.

2. Skilled Workforce: Upgrading education can induce specialized skills in individuals who are aligned with emerging industries and technologies. A skilled workforce can meet the demands of the job market, reducing unemployment rates and supporting economic growth. This benefits the public sector by having a reservoir of qualified individuals for various government roles and initiatives.

3. Prominent initiatives by the Government: PM E-Vidhya: It is a comprehensive program announced on 17 May 2020, to unify digital and online education with the education programs for better reach and access to E-learning. It targeted almost 25 crore school students across the country.

Literature Review

The global south and the whole world have witnessed tremendous changes in the education system over the last few years. Educational structures have been reformed, access democratized, and individuals and communities at the margins are actively claiming their right to education and social mobility. The state and the market have brought in various interventions to address emerging aspirations and challenges in education. Nevertheless, discourses on postcolonialism and decoloniality, globalization, liberalization, privatization, and the state of democracies today make us rethink the metamorphoses of education and how these engage with questions of society, polity, economy, and culture. The exponential growth in education ushered in by the agenda of universalization and mass education propelled by the policies of privatization has not equitably benefited the people, communities, and nations at the margins. Disparities among the regions, and inequalities between poor and rich across social groups and geographies are found to be growing. Further, there is a persisting and organized push for market and corporate interventions in education, Dzvinchuk and Ozminska (2020) have studied the latest trends in the domain of academics and their findings suggest that society's effectiveness depends on the level of advancement of its education system, namely on digitalization, intellectualization, and lifelong learning.

Schorske (2019) suggests classifying the challenges of digital transformation of the Ukrainian economy into principal categories: institutionalization, infrastructure development, and systems and technology ("State in a smartphone"). The author emphasizes the necessity to conduct digitalization in all areas of public life if Ukraine is to achieve its strategic goal – an eightfold increase in GDP by 2030.

The contemporary landscape of global education is undergoing a dynamic transformation, intricately influenced by multifaceted factors explored extensively within the scholarly literature. Technological integration in education has emerged as a pivotal area, investigating the impact of AI, virtual reality, and personalized learning platforms on student engagement and learning outcomes. Additionally, globalization's imprint on education, fostering cross-cultural exchanges and international collaborations, has sparked inquiries into curriculum development, cultural sensitivity, and the internationalization of higher education. The surge of online learning and distance education has been a focal point, scrutinizing efficacy, quality, and access in remote learning environments. Concurrently, research delves into the effects of evolving educational policies on teaching methodologies, institutional structures, and student performance. Equity and inclusion in education, addressing socio-economic disparities, gender equality, and access for marginalized communities, have garnered significant attention. Furthermore, studies center on teacher training, professional development, and the evolving role of educators in adapting to these evolving educational paradigms. Complementing these, an emerging niche focuses on how education can contribute to sustainable development goals, integrating eco-literacy and sustainability principles into curricula. This multifaceted exploration within these domains encapsulates the nuanced shifts reshaping the global educational landscape, illuminating pathways for a more adaptable and inclusive educational future. literature illuminates the profound impact of technological advancements, elucidating how digital tools have revolutionized learning environments, enabling distance education, interactive platforms, and adaptive learning systems. This transformation amplifies the discourse on redefining the role of educators as facilitators in a technology-driven educational landscape. Moreover, globalization fosters cultural exchange, prompting discussions on the integration of diverse perspectives into curricula, and nurturing global citizenship and intercultural competence. Notably, the research emphasizes the pivotal role of collaborations, partnerships, and internationalization efforts among educational institutions to enrich educational experiences and prepare learners for a globally interconnected workforce. Simultaneously, critical discussions surface regarding the challenges of the digital divide, socio-economic disparities, and ethical considerations surrounding technology's omnipresence, compelling a nuanced examination of the changing dynamics in the global educational sphere. It also highlights the importance of fostering a learner-centric approach, tailoring education to individual needs and learning styles through personalized learning pathways. Furthermore, scholars emphasize the significance of ethical considerations, such as data privacy, digital literacy, and cultural sensitivity, in crafting a comprehensive framework for global education that champions inclusivity, diversity, and ethical awareness. Over the past few decades, the landscape of global education has undergone a profound transformation, marked by a multitude of changing dynamics. One pivotal shift stems from the rapid integration of technology into educational practices, empowering students with unprecedented access to information and resources beyond geographical boundaries. This digitization has ushered in innovative learning methodologies, such as online courses, virtual classrooms, and interactive multimedia tools, fostering a more personalized and flexible approach to learning. Moreover, globalization has contributed to the diversification of educational settings, promoting cultural exchange and collaboration among institutions worldwide. This evolution has not only expanded educational opportunities but has also highlighted the importance of adapting curricula to suit a more interconnected and interdependent world. However, challenges persist, including unequal access to technology, disparities in quality education, and the need to navigate cultural nuances in a globalized learning environment. As education continues to evolve in response to these changing dynamics, it becomes crucial to address these challenges and leverage emerging opportunities to ensure a more inclusive, equitable, and globally relevant educational experience for learners across the world. The shifting dynamics in global education reflect a multifaceted evolution, influenced by various factors. Technological advancements have been a cornerstone, revolutionizing learning methodologies and reshaping educational paradigms. The emergence of Massive Open Online Courses (MOOCs), adaptive learning platforms, and AI-driven educational tools has democratized access to education, transcending geographical barriers and enabling learners to engage with diverse content and perspectives.

Simultaneously, globalization has fostered a more interconnected world, promoting cultural exchange and international collaboration among educational institutions. This has led to the rise of transnational education, with students seeking learning experiences beyond their home countries. Such opportunities offer exposure to different pedagogical approaches and diverse cultural perspectives, enriching the educational landscape.

However, amidst these advancements, challenges persist. Disparities in access to technology and quality education hinder the realization of equitable learning opportunities globally. Bridging this digital divide and ensuring inclusivity remains a crucial concern. Additionally, the need to navigate cultural sensitivities and adapt curricula to cater to a diverse global audience poses a significant challenge for educators.

The shift towards digital learning platforms and the rise of massive open online courses (MOOCs) have democratized education, making it more accessible across geographical boundaries. Moreover, the COVID-19 pandemic accelerated the adoption of remote learning, highlighting the importance of flexible and adaptable educational models. This global crisis also exposed disparities in access to quality education, emphasizing the need for more inclusive and equitable approaches. Furthermore, internationalization efforts have increased, with a growing emphasis on multicultural learning experiences and global collaboration, fostering cross-cultural competencies among students. Amidst these changes, challenges persist, such as the digital divide, ensuring educational quality in virtual settings, and addressing socio-economic disparities. As education continues to evolve, it's crucial to navigate these shifts proactively, ensuring a more interconnected, accessible, and diverse landscape for learners worldwide.

This move has been driven by the integration of technology into pedagogical approaches, enabling personalized learning experiences and adaptive teaching methodologies. Additionally, the emergence of artificial intelligence and machine learning has introduced new prospects for individualized learning paths and data-driven educational insights. Collaborative learning environments have expanded beyond physical classrooms, fostering global partnerships and cultural exchanges among educational institutions worldwide. On the other hand, these developments also present challenges, such as the ethical implications of data usage in education, the call for upskilling educators to leverage technological tools effectively and ensuring the authenticity and reliability of online information. Amid these changes, the focus on lifelong learning and skills relevant to the evolving job market remains pivotal, shaping the future trajectory of global education toward a more inclusive, adaptable, and innovation-driven ecosystem.

Findings

Factors of Objective

• IMPACT of the digital platform on global learning

BETTER ENGAGEMENT: The digital mode of learning gives a wide range of choices to learn from image and video content, gamification, virtual reality, interactive sessions, etc. creating more interesting scenarios for learners to learn. Tracking their progress can also be a motivation for learners.

• EVOLVING TEACHING METHODOLOGY

Teaching pedagogy is the framework of standards and techniques used by a faculty to facilitate student learning. These strategies are carefully figured out partially by the subject matter to be taught and partially by the characteristics of the learner. There are two approaches categorized for teaching – teacher-centered and student-centered.

• ACCESSIBLE EDUCATIONAL TECHNOLOGY:

The digital education is backed by robust hardware and software technologies that are designed to facilitate the learner with access to the content in study materials. For instance there are applications that allow learners to write or express their reactions, a mobile gadget with an optional zoom display and a PDG with intensive colour distinctiveness. Technology is considered as a bridge or medium to enhance access for all students. With technology becoming an essential part of daily life, learning cannot be devoid of its applications and user accessibility.

The findings on the changing dynamics of global education echo a transformative shift where technology serves as both a catalyst and a challenge. Technological integration has democratized access to information and education, enabling a borderless exchange of knowledge. This cannot be denied that digital metamorphosis has also unveiled stark disparities in access, particularly in marginalized communities and developing regions, exacerbating existing inequalities. The pandemic-induced transition to remote learning highlighted these inequalities, emphasizing the acute need for holistic solutions to bridge the digital gap and ensure equitable access to education for all.

Moreover, the emphasis on cultivating adaptable skill sets has become increasingly prominent. There's a realization that traditional academic knowledge alone isn't sufficient for success in the ever-evolving job market. Instead, there's a growing call to nurture skills like adaptability, critical thinking, collaboration, and creativity, which are indispensable for thriving in a dynamic global economy.

Simultaneously, global collaboration initiatives have gained momentum, emphasizing the significance of cross-cultural understanding and international cooperation. Educational institutions are forging partnerships and fostering exchange programs to expose students to diverse perspectives and cultures, preparing them to navigate the complexities of an interconnected world.

However, challenges persist. Addressing the digital divide, ensuring quality education in remote settings, and redesigning curricula to encompass essential skills remain pressing concerns. Finding comprehensive solutions to these challenges is critical for building a more inclusive, adaptable, and globally competent generation of learners capable of contributing meaningfully to a rapidly changing global landscape.

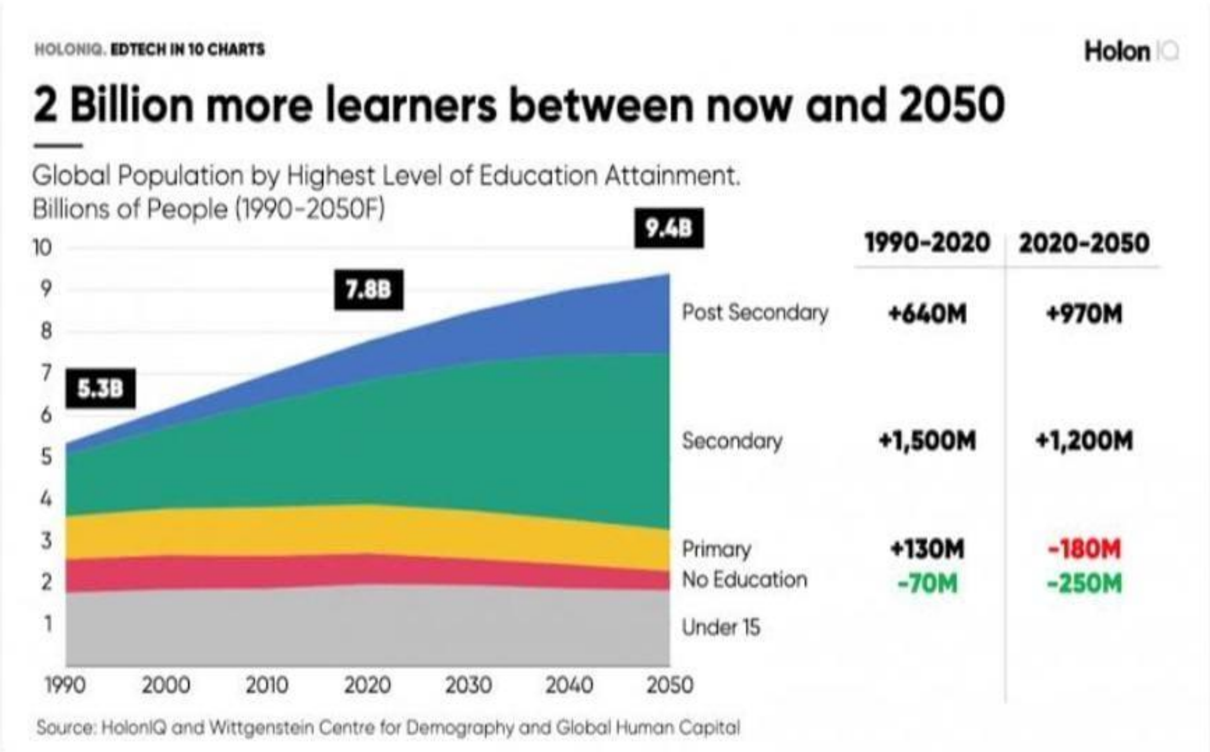
The evolving dynamics of global education underscore the profound impact of technology in reshaping learning paradigms. The extensive adoption of digital platforms has revolutionized a doorway to academic resources, fostering a more inclusive environment for global learners. However, this digital revolution has revealed stark disparities in access and infrastructure, especially in underserved communities and remote regions, highlighting the urgent need for concerted efforts to bridge the digital divide and ensure equitable access to quality education.

Moreover, the COVID-19 pandemic propelled a rapid shift to remote learning, emphasizing the relevance of flexible and adaptable educational models. This transition underscored the necessity for educators to develop innovative teaching strategies tailored to online environments while grappling with challenges such as maintaining student engagement and ensuring the authenticity of virtual learning experiences.

In tandem, the emphasis on cultivating a diverse ability has gained prominence. There's a growing acknowledgment that fostering skills like problem-solving, adaptability, creativity, and emotional intelligence are crucial alongside traditional academic knowledge. This shift signals a reevaluation of curricula to better correspond with the evolving requirements of the job market, empowering students to thrive in a competitive global economy.

Moreover, the acceleration of global collaboration initiatives has reinforced the significance of cultural exchange and international cooperation in education. Institutions are actively promoting cross-cultural experiences, enabling students to evolve a global perspective and intercultural competencies essential for success in an interconnected world.

Despite this elevation, impediments remain, including addressing resource inequalities, redefining teaching methodologies for digital environments, and ensuring the integration of crucial skills into education systems. Conquering these challenges will require collaborative efforts, innovative approaches, and a steadfast commitment to creating a more accessible, adaptable, and globally aware educational landscape.



Reference: Holoniq
https://www.holoniq.com/edtech-in-10-charts

Limitation

Online learning should not supersede the classroom experience because it lacks personal contact and student-to-student and teacher-to-student interaction. As technology has moved into education, faculty would have to be appropriately trained. Digitalization also provides opportunities for users to cyber bully and disconnects people from the real world. Fine handwriting is disappearing as computers, laptops, and mobile phones have replaced the use of paper and books. There is an argument that all new technology has lost communication skills and the ability to work with each other. Because so many novel technologies are designed for individual use, there is a legitimate concern that students will lose the communication and collaboration skills that are developed in the classroom.

Students who have been denied access to new technologies, such as those from areas with limited resources. Lack of access to more common technologies such as computers can also be problematic, as computers are included in all classrooms. This makes homework difficult.

Balancing traditional and Western education systems is the best way to progress in the educational process, The cost of upgrading or maintaining technology is often overlooked. In a world where innovations in the field of digital technologies appear almost every month, and where upgrading software and applications continuously requires more powerful devices, relying on the belief that technology in education is the only solution sounds overly confident.

There are problems inside and outside the classroom. Advocates of technology in education often forget that students are still using their phones and tablets throughout the day, even after school. To paraphrase, with daily exposure to social media and video games, children's brains are accustomed to fun, attention-grabbing, short-term information that quickly stimulates their dopamine systems.

Suggestions

1. Leadership Development Programs can assist students in developing leadership skills, foster creativity, and build the confidence to make a positive impact on the world.
2. Encourage schools to host cultural festivals, international food days, and cultural exchange programs as a way to celebrate and accept the diversity of culture. This promotes tolerance, respect, and appreciation for many cultural traditions.
3. Language Exchange Programs that permit students to interact directly with native speakers of other languages and cultures to learn about them. This enhances linguistic

ability and cross-cultural comprehension.

4. Moving the emphasis from imparting knowledge to developing skills: Prioritizing digital literacy, teamwork, creativity, critical thinking, and problem-solving in place of memorization.

5. Encouraging fairness and accessibility for every student: Resolving structural disparities that impede marginalized groups' access to high-quality education (such as women, refugees, and rural communities).

Conclusion

The changing dynamics of global education have been marked by a shift towards digital learning, increased emphasis on personalized and adaptive learning experiences, globalization of education through online platforms, and the growing significance of skills development over traditional academic qualifications. Advancements in technology have democratized access to education, allowing for remote learning, skill-based training, and the rise of Massive Open Online Courses (MOOCs). Moreover, the COVID-19 pandemic accelerated the adoption of online education, reshaping the traditional classroom model and highlighting the relevance of flexibility and resilience in education systems.

Additionally, there's a growing recognition of the need for lifelong learning, prompting institutions to focus on providing continuous education opportunities to adapt to evolving job markets and technological advancements. Collaborative and interdisciplinary approaches have gained momentum, fostering a more holistic educational experience that integrates various disciplines and real-world applications.

The road ahead for global education seems poised to continue its trajectory toward accessibility, adaptability, and inclusivity through technology-driven solutions and a more dynamic, skills-oriented approach to learning

In summary. A move toward digital learning, a greater focus on individualized and flexible learning experiences, the globalization of education through online platforms, and the increasing weight placed on skill development rather than traditional academic credentials are all indicators of how the dynamics of global education are evolving. Technological developments have made education more accessible to a wider audience by facilitating skill-based training, distance learning, and the growth of Massive Open Online Courses (MOOCs). Furthermore, the COVID-19 pandemic hastened the uptake of online learning, transforming the conventional classroom paradigm and emphasizing the value of adaptability and resilience in educational frameworks.

Furthermore, as the relavance of lifelong learning becomes more widely acknowledged, educational institutions are putting more emphasis on offering opportunities for ongoing education to help students keep up with changing job trends and technology developments.

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13. Enhancing M-commerce User Experience in India Through Technological Innovations

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Abstract

The rapid adoption of smartphones and mobile internet in India has significantly boosted mobile commerce (m-commerce). As more people use their mobile devices for shopping, businesses need to improve the user experience to stay competitive. This paper explores how new technologies are enhancing the m-commerce user experience in India. By inspecting data from various studies, reports, and articles, this research provides a detailed look at the current trends and future potentials in this dynamic field.

Keywords: M-commerce, User Experience, Technological Innovations, Mobile Payments, Augmented Reality, Virtual Reality, Artificial Intelligence, India=

Introduction

The quick rise of smartphones and mobile internet in India has made it easy for people to shop online using their phones. More and more people are using their mobile devices to shop, so businesses need to improve the shopping experience to stay competitive. This paper looks at how new technologies are making shopping on mobile devices better for users.

India's digital change has brought many people online, thanks to affordable smartphones and data plans. Now, millions of people can use the internet, and many of them are shopping online for the first time using their phones. The convenience of browsing, comparing, and buying products from a mobile device has changed what customers expect from shopping.

New technologies are a big part of this change. Features like personalized recommendations using artificial intelligence (AI), easy payment options through digital wallets and UPI, and fun shopping experiences using augmented reality (AR) and virtual reality (VR) are becoming common in mobile shopping apps. These technologies make shopping more engaging and enjoyable, helping to build customer loyalty.

The COVID-19 pandemic has also sped up the move to mobile shopping, as more people prefer to shop from home for safety and convenience. This increase in online shopping has pushed businesses to innovate quickly, using advanced technologies to meet their customers' needs.

However, there are challenges to this growth. Security issues, like data breaches and fraud, need to be solved to keep customers' trust. Also, while cities have good internet access, rural areas still face problems with connectivity, making it harder for everyone to shop online.

This paper examines the role of new technologies in m-commerce and their impact on user experience. Using secondary data from various studies, reports, and articles, this research aims to offer a clear understanding of current trends and future directions in this fast-evolving field.

Literature Review

- The Internet and Mobile Association of India (IAMAI) report shows that m-commerce is growing rapidly, driven by increasing internet penetration and smartphone use (Media Infoline) (ABP Live).
- According to Nielsen (2022), consumers in India prefer mobile shopping due to convenience and availability of better deals (ABP Live).
- Shukla and Verma (2022) discuss how Augmented Reality and Machine Learning are transforming user engagement in m-commerce by offering personalized experiences (Media Infoline).
- A report by TechSci Research (2021) highlights that Augmented Reality and Virtual Reality technologies are enhancing the user experience by providing immersive shopping experiences (Media Infoline).
- Reddy and Rao (2020) explore how mobile payment technologies are influencing consumer behavior in m-commerce, making transactions faster and more secure (Media Infoline) (ABP Live).

Study Objectives:

i. Analyzing how new technologies are changing the way people experience mobile commerce in India.

ii. Identifying the key technologies that are most important for enhancing the m-commerce user experience.

iii. Exploring future trends that could further improve the m-commerce experience.

Research Methodology:

This study uses secondary data from reputable sources, including academic journals, industry reports, and articles. The data is studied to understand the impact of technological innovations on m-commerce user experience.

Analysis and Findings:

Growth Trends and Consumer Behaviour: Mobile commerce, or m-commerce, is growing rapidly in India. This growth is driven by more people using smartphones and having access to affordable internet. Consumers appreciate the convenience of shopping on their phones and the personalized experiences that m-commerce offers. These factors are very important for the success of m-commerce in India.

Impact of Technological Innovations: Artificial Intelligence (AI) and Machine Learning (ML) help create personalized shopping experiences for users. These technologies analyze user behaviour and preferences, allowing m-commerce platforms to recommend products that users are likely to be interested in. This keeps users engaged and makes shopping more enjoyable. Augmented Reality (AR) and Virtual Reality (VR) technologies offer immersive shopping experiences. For example, AR can allow users to see how a piece of furniture looks in their home before buying it, and VR can provide a virtual store tour. These features make online shopping more interactive and boost confidence in purchasing decisions. Having secure and simple payment options is essential for m-commerce. Easy-to-use mobile payment methods help reduce the chances of customers abandoning their shopping carts. When consumers feel safe making payments, their trust in m-commerce platforms increases, encouraging more purchases.

Challenges in M-commerce: Despite the growth, there are significant challenges in m-commerce, particularly related to security and infrastructure. Many consumers worry about the safety of their personal information and payment details. Ensuring that m-commerce platforms are secure is crucial to gaining and maintaining consumer trust. Additionally, improving the technological infrastructure is necessary to support the continued growth of m-commerce. This includes better internet connectivity and more reliable payment systems. Overall, addressing these challenges is vital for sustaining the growth of m-commerce in India and ensuring a positive user experience.

Discussion:

Our findings indicate that technological innovations significantly enhance the m-commerce user experience in India. Artificial Intelligence (AI) and Machine Learning (ML) driven personalization, Augmented Reality (AR) and Virtual Reality (VR) applications, and efficient mobile payment solutions are key to user satisfaction. However, it is essential to address security concerns and improve infrastructure, especially in rural areas, to ensure widespread adoption.

Conclusion and Recommendations:

Technological advancements are transforming m-commerce in India, providing better user experiences and driving growth. To maximize these opportunities, stakeholders should:

- Invest in Artificial Intelligence (AI) and Machine Learning (ML) technologies for personalized user experiences.
- Explore Augmented Reality (AR) and Virtual Reality (VR) applications to create engaging shopping environments.
- Strengthen mobile payment solutions to ensure security and ease of use.
- Improve infrastructure to expand m-commerce access in rural areas.

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14. Uncovering the influence of behavioural biases on the gender gap in financial literacy: A comprehensive analysis

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Abstract

The theory underlying behavioural finance, a branch of behavioural economics, is that investors' and financial professionals' financial decisions are influenced by psychological factors and biases. Unlike classical finance theory, which assumes that people are always rational and make decisions to maximise their wealth, behavioural finance theory does not make these assumptions. Behavioural finance acknowledges that humans frequently stray from rationality due to numerous psychological and emotional reasons.

The goal of the study is to comprehend the influence of behavioural biases on financial literacy among gender gaps. Financial Literacy is a crucial aspect of life yet, there is gender disparity. The study aims to understand whether behavioural bias has any impact on financial literacy among gender.

Through this research we will be able to comprehend how various behavioural biases, such as loss aversion, herd mentality, overconfidence bias, etc., can affect financial literacy through this research. We can learn a lot about why gender might experience various difficulties learning and using financial knowledge by looking at these prejudices. Through this research, we will be able recognise the gap, and we can apply this knowledge to develop financial programmes for each gender. Policymakers, educators, and financial institutions will benefit from this research in designing financial education programmes and products that address gender and behavioural biases. Further this research will help to create more effective methods to promote financial inclusion and equity by studying how biases combine with gender to affect financial literacy.

Keywords: Financial Literacy, Behavioral Bias, Gender Gap, Financial Education.

1. Introduction

Traditional finance asserts that investors are rational and form wise investment decisions based on their understanding, whereas behavioural finance contends that investors are irrational and make unwise investment decisions (“Impact of Financial Literacy and Behavioural Biases on Investment Decision-making,” n.d.). Individual beliefs and attitudes, the influence of those around them, the opinions of other investors, the news on social media, the opinions of experts, and the previous performance of the investment vehicle are usually effective in the investment decisions of individuals. The investment choice here is far from professional; it is based on personal factors (“Behavioural Finance and Financial Literacy: An Evaluation for Teachers,” n.d.). In practice, it is discovered that investors use their emotions and psychology in making investment decisions, resulting in unpredictable or irrational behaviour. The financial theory that addresses such behaviour is called behavioural finance. The basic premise of conventional financial theory is that investors are rational, meaning they will make decisions based on the information they have in a rational way (“Overconfidence, Attitude Toward Risk, and Financial Literacy: A Case in Indonesia Stock Exchange,” n.d.).

In this paper, we try to understand behavioural biases, such as loss aversion, herd mentality, overconfidence bias, anchoring bias, decisions based on emotions affect the financial literacy among different gender. Finance practitioners frequently base their decisions on the first piece of information they receive, such as a stock's initial purchase price, so they have difficulty adapting their assessment to new information. This tendency is known as anchoring, which is the tendency for experts to have a belief and then apply it as a reference point for making future judgments (“How Behavioural Biases Affect Finance Professionals,” n.d.).

Financial planners, advisors, and their clients frequently have a preference to own familiar assets. Investors also perceive these familiar assets as less risky and earning a higher rate of return (“How Behavioural Biases Affect Finance Professionals,” n.d.). Overconfidence bias, which includes both prediction overconfidence and certainty overconfidence, is an unwarranted faith in one's intuitive reasoning, judgments, and cognitive abilities. (“How Behavioural Biases Affect Finance Professionals,” n.d.).

Financial bubbles and crashes can occur as a result of herding behaviour. As prices rise as a result of investors capitalising on momentum, professionals may observe their peers investing in these assets and be encouraged to invest in them as well. They run the risk of falling behind their peers if they don't follow, but if they do, they might end up on the wrong side of an unnaturally lucrative trade opportunity ("How Behavioural Biases Affect Finance Professionals," n.d.). Loss aversion, also known as prospect theory, proposes that managers may overweight losses compared to an equivalent gain relative to a reference point or anchor, and their behaviour depends on which side of the point their position lies. Kahneman and Tversky (1979) found that investors treat the gains and losses in their portfolio differently ("How Behavioural Biases Affect Finance Professionals," n.d.).

Confirmation Bias suggests that professionals may give more weight to information that supports their current beliefs and less weight to information that contradicts them. The implication is that recommendations may be biased based on prior recommendations ("How Behavioural Biases Affect Finance Professionals," n.d.). Financial literacy is the capacity to understand fundamental financial concepts like saving, investing, budgeting, and borrowing as well as the ability to control one's personal situation through planning [10] (p. 289). While these financial capabilities are developing, social media, news channels, personal experiences, and other channels can be useful ("Behavioural Finance and Financial Literacy: An Evaluation for Teachers," n.d.)

2. Literature Review

Salim and Setyawan (2023) research aims to find out how investment actors' demographic factors, financial literacy, and behavioural bias affect the investment decisions they make, where it highlights upon a point still rarely disclosed: whether financial literacy and behavioural bias are able to mediate the relationship between demographic factors and investment decision. **Castro Espinoza Angela Yanina, Sánchez Uriarte Cristhian Jhair, Abdel Javier, Yasmy Fiorella, Victor Manuel, María Magdalena, Georgina July (2023)** highlights the increasing inclusion of women in various economic sectors, particularly the financial sector, which is crucial for economic growth. Despite no established theory on women's financial inclusion, governments are actively working to create conditions for its empowerment. **Bansal and Kaur (2023)** study looks into gender disparities and financial literacy in rural Punjab and concludes that there is a huge gender disparity of 9.8% for women and 28.3% for men. It also draws attention to how respondents' degrees of financial literacy are influenced by demographic and socioeconomic characteristics. **Gürsel Ersoy, Ercan Özen2 (2022)** study explains teacher's attitude towards investment and examined the views of teachers who have financial investments. Teachers make financial investing decisions based on particular biases, attitudes, and tendencies. **Sutaria et al., (2023)** studied the factors like, risk appetite, investment diversification, and demographic profiles of the investor, this study seeks to discover differences in investor perspectives toward the factors impacting investment decisions. This study aims to identify and analyze the factors that influence the investment decisions of individual investors in Mumbai City. **Preston and Wright (2022)** explored gender gaps in financial literacy among teenagers, emerging adults, and young adults, revealing that factors like schooling, high school type, labour market activity, and parental employment significantly contribute to this gap.

Suresh G. (2021) investigated the combined effect of behavioral biases and financial knowledge on investment decisions. Yuan-Lin Hsu, Hung-Ling Chen, Po-Kai Huang, Wan-**Yu Lin (2021)** research reveals women are more regret averse, while men have stronger self-attribution and confirmation biases. However, financial literacy can mitigate gender differences in behavioral bias. **Gustav Tinghög a c, Ali Ahmed a e, Kinga Barrafrem a, Thérèse Lind a, Kenny Skagerlund b, Daniel Västfjäll (2021)** explored the gender gap in financial literacy, its non-numerical contexts, and its relationship to confidence in financial matters. Results show a robust gender gap in financial literacy, not due to perceived confidence differences. **Zaenal Arifin, Erin Soleha (2019)** study found that investor attitudes towards risk influence overconfident behaviour, increasing as risk exposure increases, but financial literacy doesn't necessarily reduce this behaviour. **Sadiq and Khan (2019)** study examines the relationship between risk behaviour and investment intention among 284 finance- background students. Results show that active, sympathetic, determined, and well-organised individuals are more willing to invest, with financial literacy playing a moderating role. **Oscar A. Stolper, Andreas Walter (2017)** study evaluates financial education programs for improving financial literacy and behaviour, finds disappointing evidence, and discusses the role of financial literacy in professional advice and expert intervention. **H. Kent Baker, Greg Filbeck, and Victor Ricciardi (2017)** research highlighted how behavioral biases, such as heuristics, anchoring, and framing, among others, can have a detrimental effect on the decision-making process of financial professionals, making them their own worst enemies.

Research Gap

This research will be showing how different behavioural biases can affect the decision making in different gender. Biases such as overconfidence bias, herd mentality bias, confirmation bias, emotional bias, anchoring bias, loss aversion bias are covered in this study. We are also trying to understand the existing financial literacy among different gender gaps and comparing it with their biases.

3. Research Methodology

3.1 Objectives

1. To determine the influence of behavioral bias with gender in Mumbai city.
2. To understand the relationship between risk appetite and income levels of investors in Mumbai city.

3.2 Data Collection

Primary Data: The primary data was collected from a survey questionnaire.

Secondary Data: The secondary data was collected from research articles, journals, and websites.

3.3 Sampling Method

Sampling Method: The sample method used for this research is convenience sampling.

Research Design: This research is descriptive in nature

Sample size: The sample size is 75 responses.

3.4 Hypothesis

Hypothesis 1

H0 (Null Hypothesis): There is no significant influence of behavioral bias on gender among individuals in Mumbai.

H1 (Alternate Hypothesis): There is a significant influence of behavioral bias on gender among individuals in Mumbai.

Hypothesis 2

H0 (Null Hypothesis): There is no significant relationship between risk appetite and income investors level in Mumbai.

H1 (Alternate Hypothesis): There is a significant relationship between risk appetite and income levels of investors in Mumbai.

3.5 Variables

Independent Variable: Behavioral bias, age group

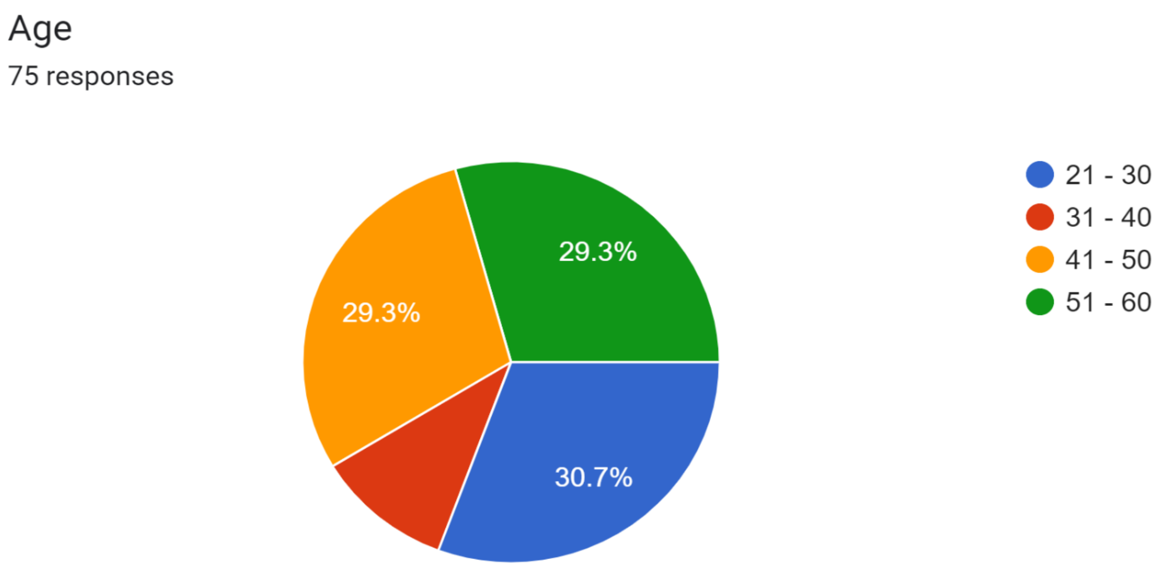
Dependent Variable: Income Levels, risk appetite

3.6 Significance of the Study

This study will assist policymakers, educators, and financial institutions in designing financial education Programmes and products that address both gender and behavioral biases. This research will also contribute to the development of more effective approaches for promoting financial inclusion and equity by investigating how biases interact with gender to affect financial literacy.

4. Data Analysis and Interpretation

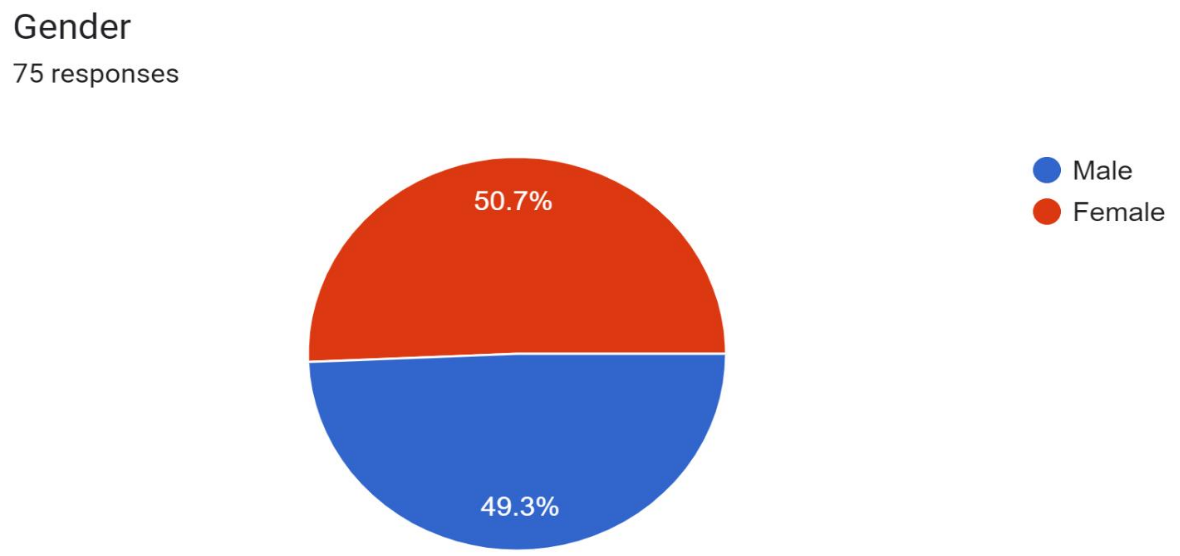
Graph1: Age



(Source: Primary data)

Inference: We received major responses from the age group of 20-31 years, and equal amounts of responses from the age group 40-50 and 51-60 years.

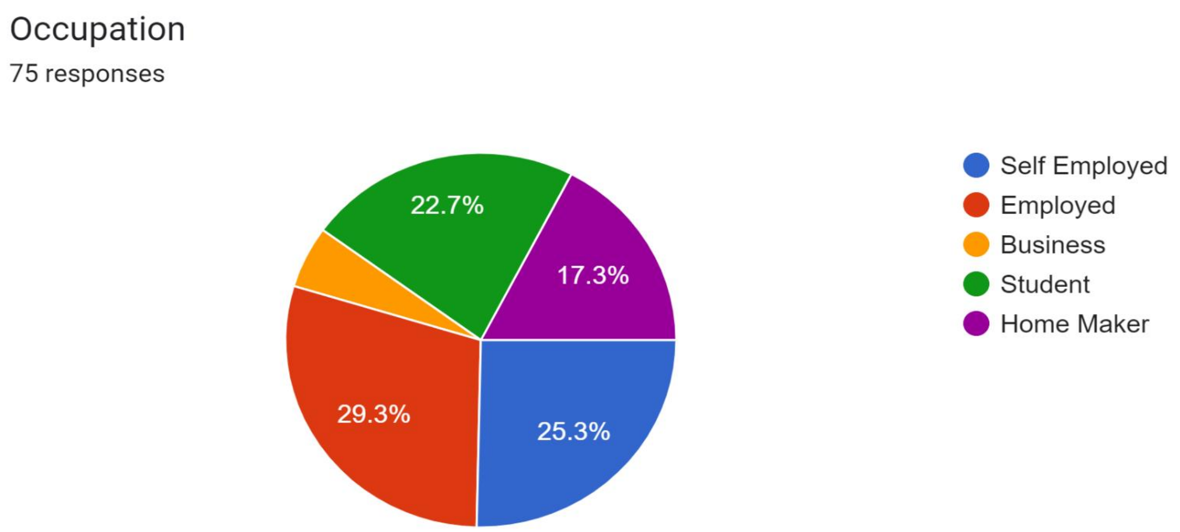
Graph2: Gender



(Source: Primary data)

Inference: Most of the responses were from Females with 50.7% and followed by Male with 49.3%

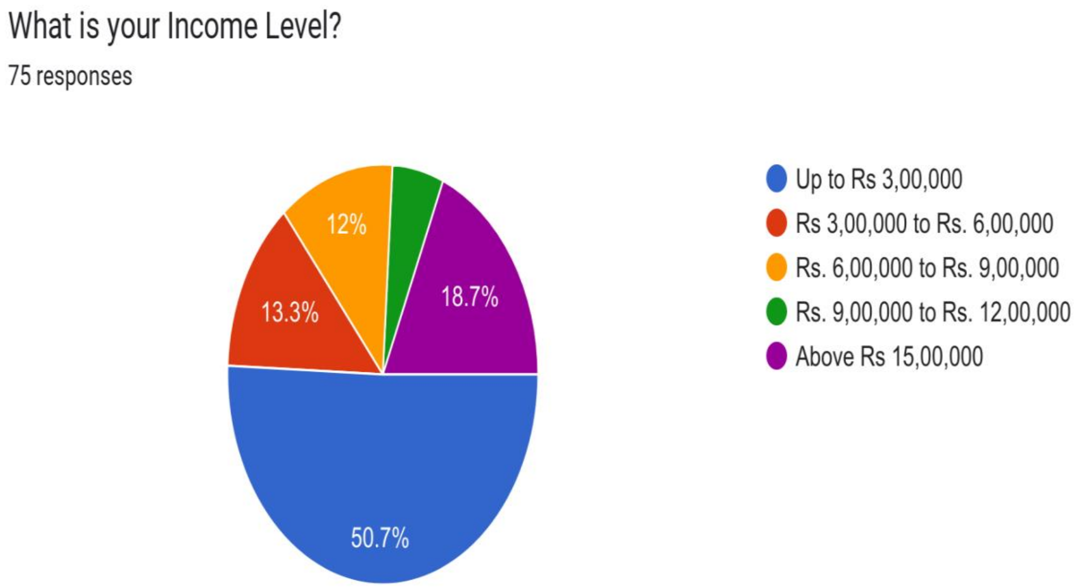
Graph3: Occupation



(Source: Primary data)

Inference: In the above pie-chart most of the responses were from Employees (29.3%) followed by Self Employed (25.3%) then Students (22.7%), Home Makers (17.3%) and lastly Business Person (5.3%).

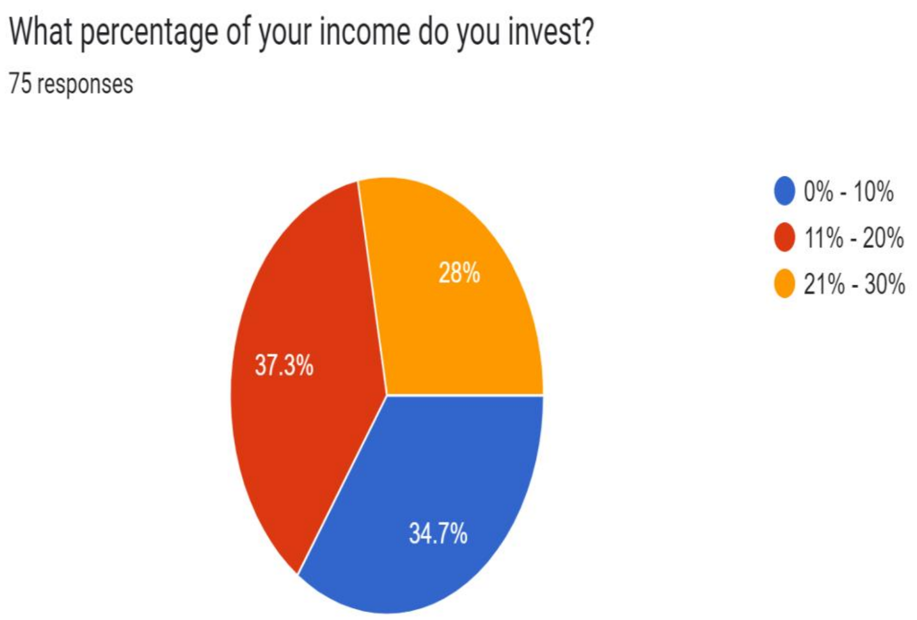
Graph4: Income Level



(Source: Primary data)

Inference: Most of the responses that we received were from the income group of up to Rs 3 lakhs, 18.7% of the responses were from income ranges of more than Rs 15 lakhs, 13.3% of the responses were from the income range of Rs 3 lakhs to 6 Lakhs, 12% of the responses were from the income range of Rs 6 lakhs to 9 lakhs and the remaining responses are from the income range of Rs 9 lakhs to Rs 12 lakhs. We have received maximum response from the middle-class income group.

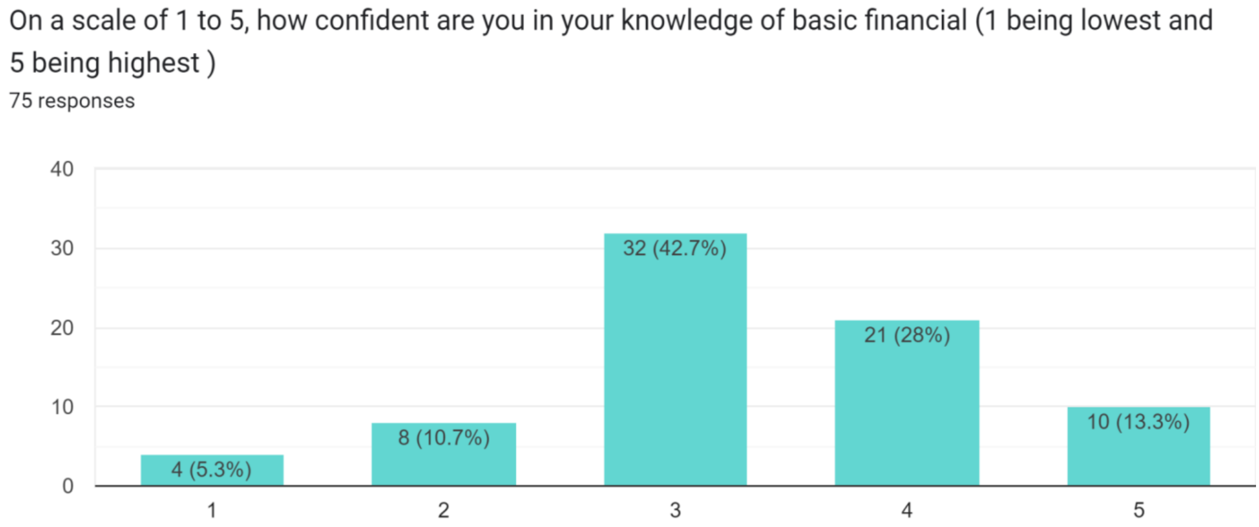
Graph5: Percentage of Income towards investment



(Source: Primary data)

Inference: 37.3% of the individuals invest 11-20% of their income, followed by 34.7% of the individuals who invest up to 10% of their income, and 28% of the individuals invest up to 21-30% of their income.

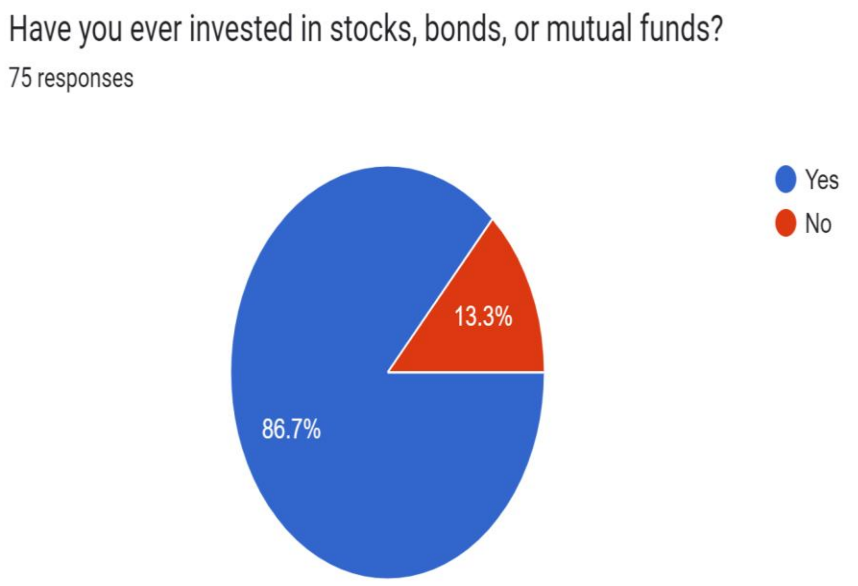
Graph6: Knowledge about finance



(Source: Primary data)

Inference: 42.7% of the respondents were neutral about their confident level of basic financial knowledge, 28% of respondents were very confident, 13. 3% were extremely confident, 10.7% were a little bit confident and lastly 5.5% of the respondents were not at all confident. 32 respondents were neutral about their confidence in financial knowledge

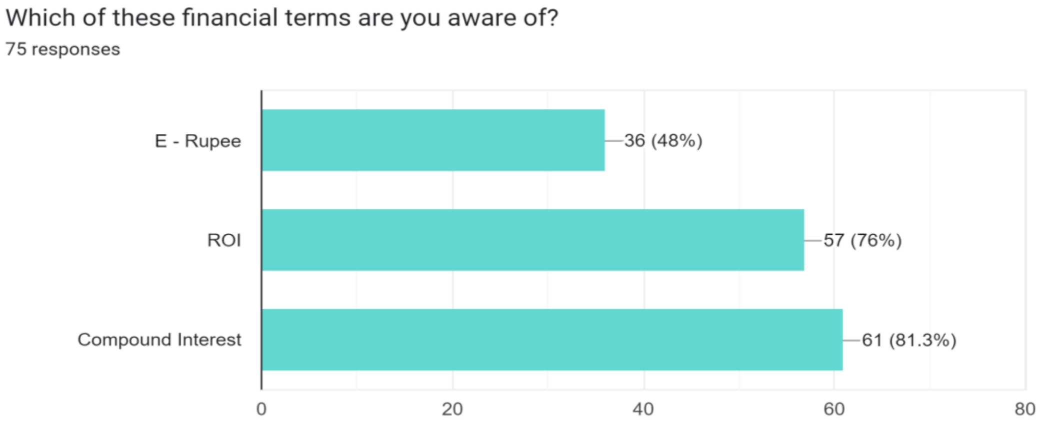
Graph7: Investment in stocks, bonds or mutual funds



(Source: Primary data)

Inference: 86.7% of the people have invested in stocks, bonds and mutual funds. While 13.3% of the respondents do not invest.

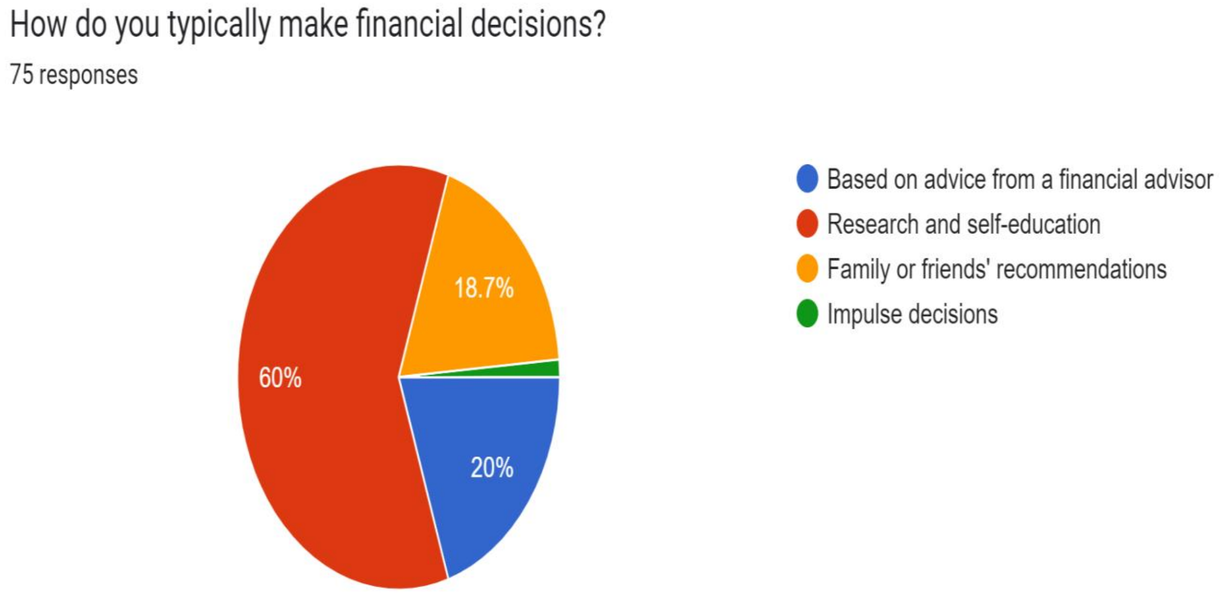
Graph8: Awareness of financial terms



(Source: Primary data)

Inference: From the above chart we can identify that most of the people were aware about the term Compound Interest followed by ROI and lastly E - Rupee. This shows that most of the people are not up to date regarding their financial knowledge.

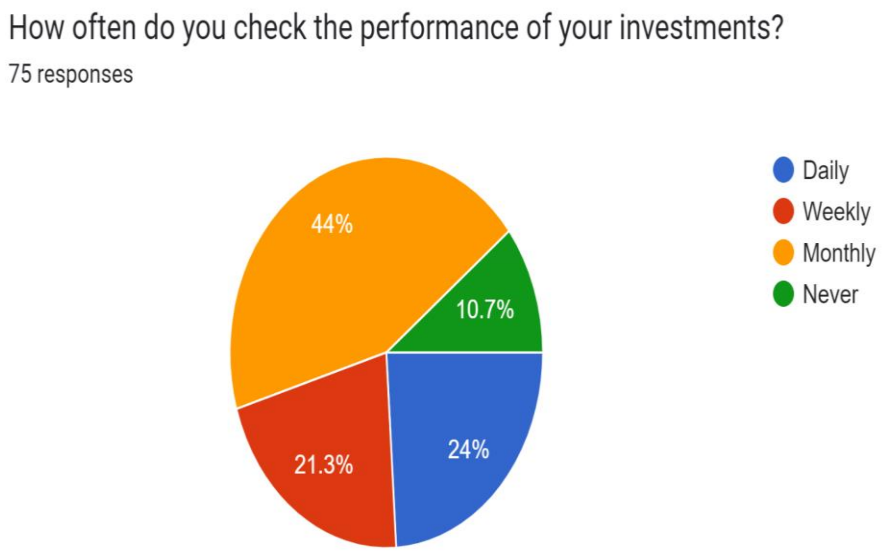
Graph9: Typical making financial decisions



(Source: Primary data)

Inference: 60% of the responses were received from individuals who research before making any financial decisions, 20% of the investors invest based on advice from financial advisors, 18.7% of the investors invest on the recommendations from their family and friends and the remaining investors make financial decisions on an impulse.

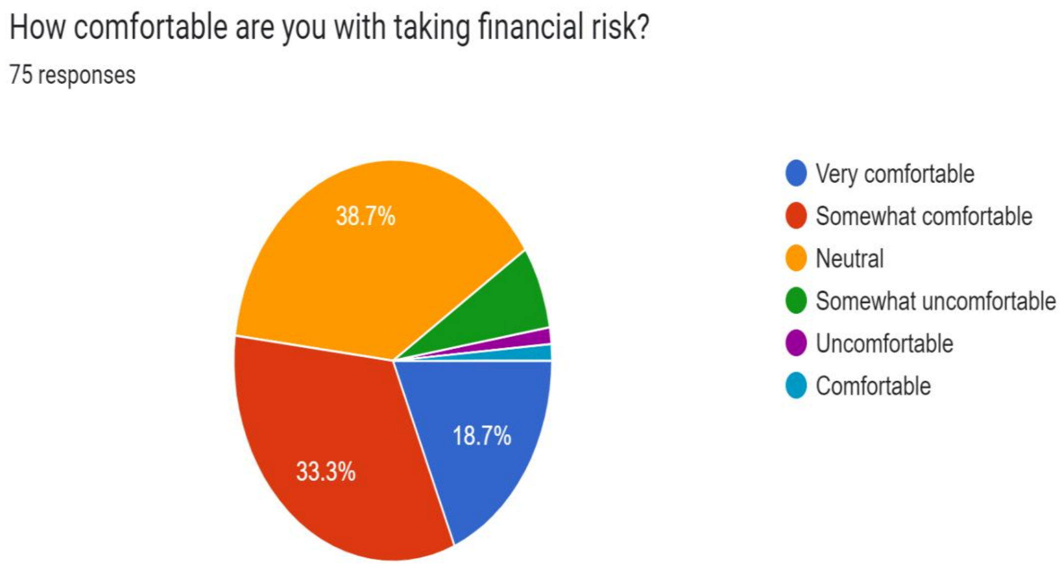
Graph10: Checking performance of investments



(Source: Primary data)

Inference: 44% of the people check their investments performance monthly, 21.3% check it daily, 24% of the people do it daily and 10.7% never check their investments.

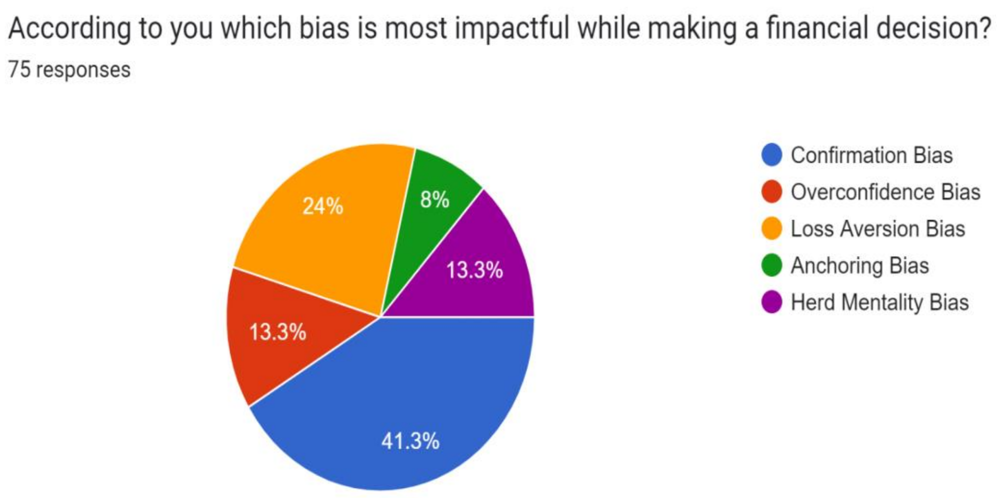
Graph11: Comfort in taking financial risks



(Source: Primary data)

Inference: 38.7% respondents said that they are neutral with taking financial risk, while 33.3% responded that they are somewhat comfortable, 18.7% responded that they are comfortable with risk. Very few respondents are not comfortable with taking financial risk.

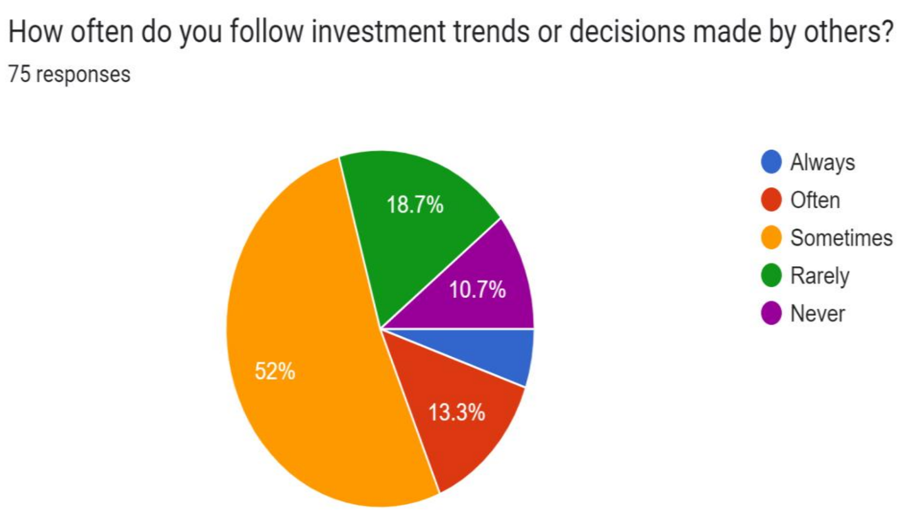
Graph12: Impact of bias on making financial decision



(Source: Primary data)

Inference 41.3% of the respondents feel confirmation bias is the most impactful while making a financial decision, 24% of the respondents feel that loss aversion is the most impactful, 13.3% of the respondents feel over confidence and herd mentality bias is the most impactful, while the remaining respondents feel that anchoring bias is most impactful while making a financial decision.

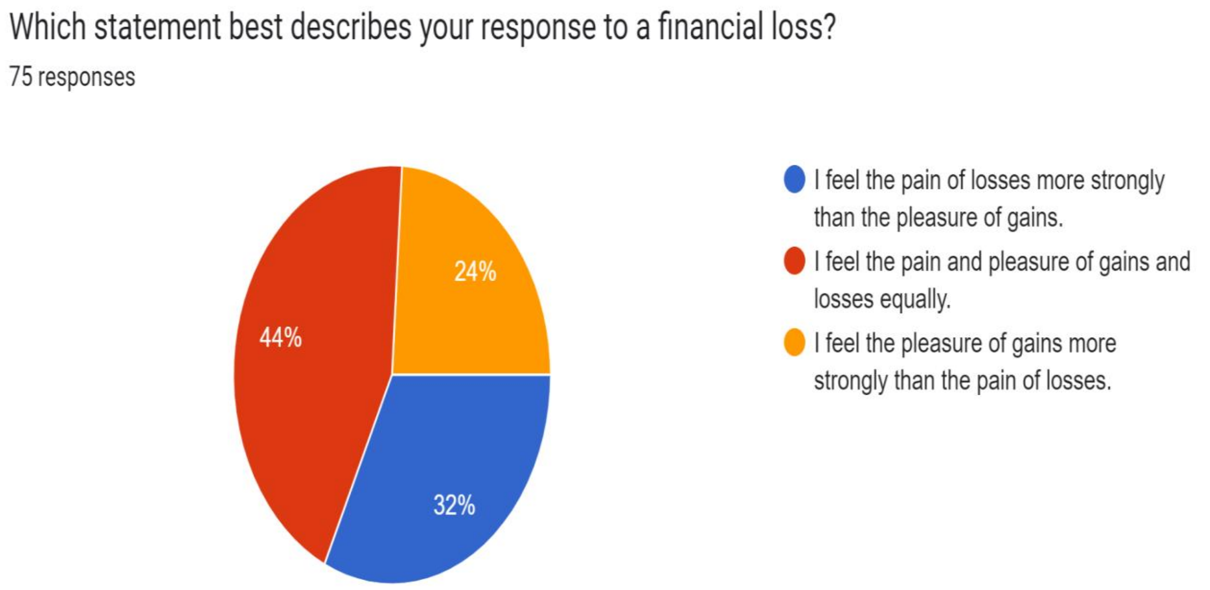
Graph13: Follow investment trends



(Source: Primary data)

Inference: 52% of the respondents sometimes follow investment trends made by others, 13.3% always follow the herd. This showcases that more than 50% of the people tend to follow the herd, and are victims to the herd mentality. 18.7% of the respondents rarely follow the herd, and 10.7% never follow the herd.

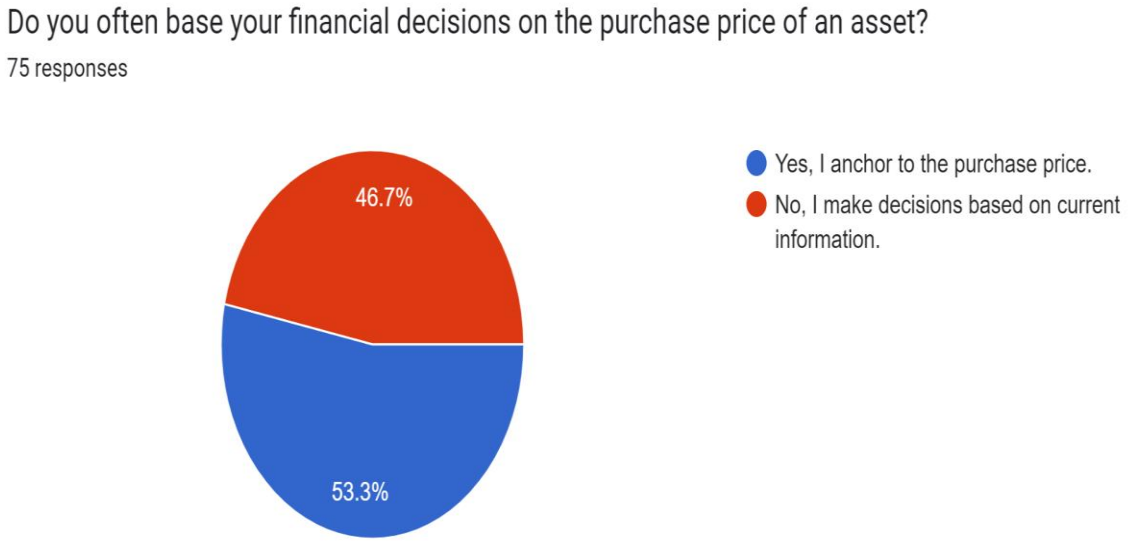
Graph14: Financial Loss



(Source: Primary data)

Inference: 44% of the respondents feel that they respond to the pain and pleasure of gains and losses equally, while 32% of the respondents feel that they respond to the losses more strongly than the pleasure of gain, while the remaining respondents feel that the pleasure of gains overpower the pain of their loss. From the above chart, it can be understood that loss aversion does not have a huge impact on the financial decision of investors.

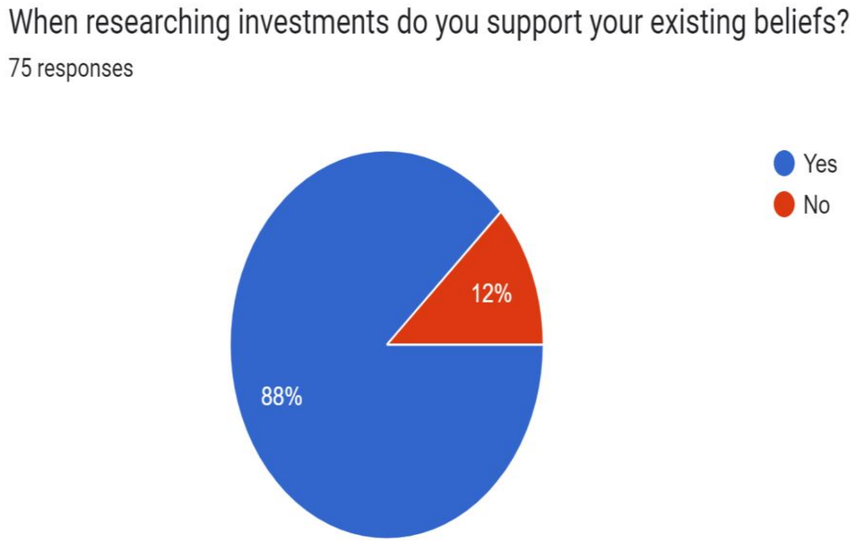
Graph15: Financial decision on purchase price of an asset



(Source: Primary data)

Inference: 53.3% of the people said yes to making financial decisions on the purchase price of the assets. While 46.7% of the respondents said no. More than 50% of the people have an anchor bias.

Graph16: Financial decision on purchase price of an asset

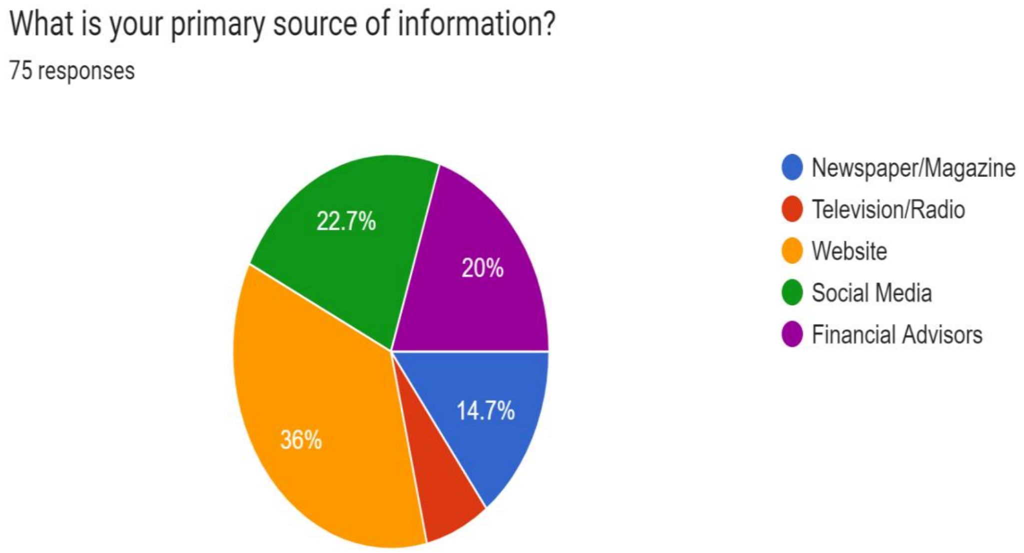


(Source: Primary data)

Inference: 88% of the respondents say that they research based on their existing beliefs, while 12% of the respondents said that they do not research based on their existing beliefs.

Through this chart, we understand that more than 50% of the individuals follow confirmation bias while researching for investments.

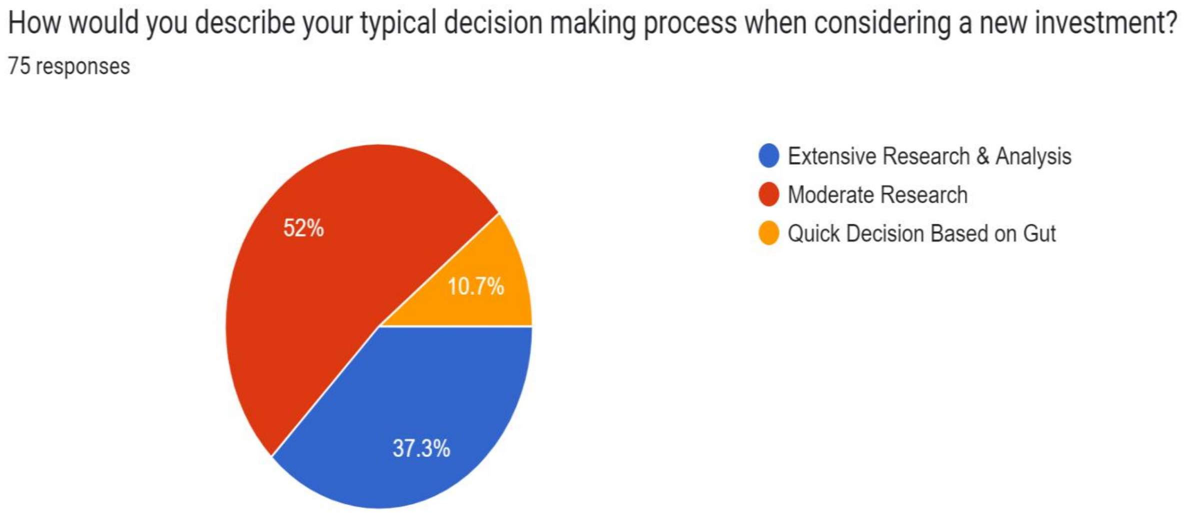
Graph17: Primary source of information



(Source: Primary data)

Inference: 36% of the respondents said that their primary source of information is from websites, followed by 22.7% of the respondents who said that their primary source of information is social media, 20% of the investors said that they receive information from financial advisors, while 14.7% of the respondents get their information newspaper/magazine and the remaining get their information from television.

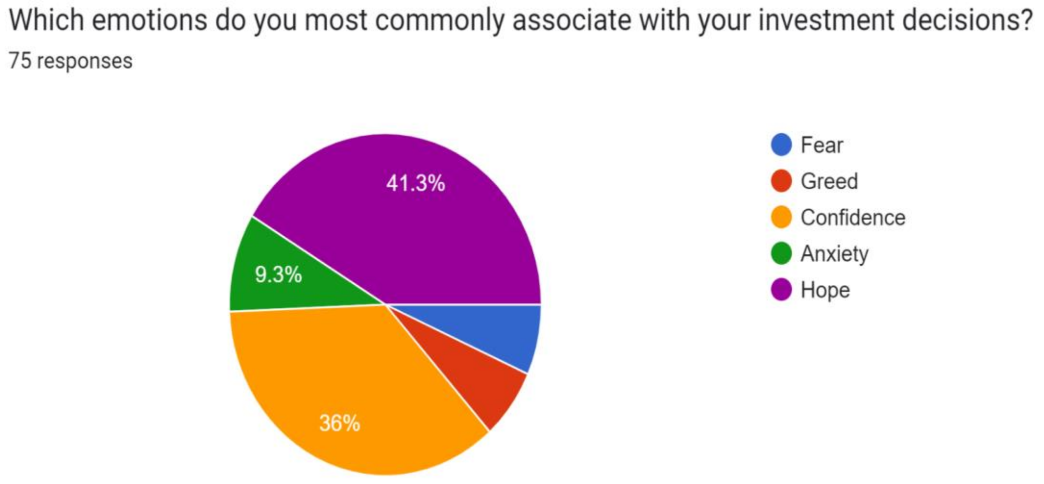
Graph18: Typical decision making process with new investment



(Source: Primary data)

Inference: 52% of the individuals do moderate research before considering a new investment, 37.3% of the respondents do extensive research and analysis, while 10.7% of the respondents make quick decisions based on gut and intuition.

Graph19: Association of emotion with investment decisions



(Source: Primary data)

Inference: 41.3% of the investors feel hopeful after making an investment decision, while 36% of the people feel confident, 9.3% of the investors feel anxious, and 6.7% of the people feel fearful and greedy.

4.1 Hypothesis Testing

Hypothesis 1

z-Test: Two Sample for Means		
	Gender	*Bias*
Mean	1.50667	2.38667
Known Variance	0.25	2.05
Observations	75	75
Hypothesized Mean Difference	0	
z	-5.02515	
P(Z<=z) one-tail	2.5E-07	
z Critical one-tail	1.64485	
P(Z<=z) two-tail	5E-07	
z Critical two-tail	1.95996	

For the above Null Hypothesis, Z test was applied. The calculated Z value is -5.02515. The p-value for a one-tailed test is approximately 2.52E-07. The p-value for a two-tailed test is approximately 5.03E-07. Therefore, we accept the Null Hypothesis.

Hypothesis 2

z-Test: Two Sample for Means		
	Income	*Risk*
Mean	2.28	2.36
Known Variance	2.47	0.85
Observations	75	75
Hypothesized Mean Difference	0	
z	-0.3802346	
P(Z<=z) one-tail	0.35188566	
z Critical one-tail	1.64485363	
P(Z<=z) two-tail	0.70377131	
z Critical two-tail	1.95996398	

For the above Null Hypothesis, Z test was applied. The calculated Z value is -0.38023455. The p-value for a one-tailed test is approximately 0.351885657. The p-value for a two-tailed test is approximately 0.703771314. Therefore, we accept the Null Hypothesis.

5. Conclusion

Behavioural bias has some impact on the investors' decisions. According to the data we have collected, investors seem to think that confirmation bias is the most impactful while taking a financial decision. Confidence and hope seem to be one of the major emotions, that investor feel after making a financial decision. Most of the investors prefer taking financial advice from experts and do moderate research before considering making a new investment. Investors use websites and social media for their daily source of financial information.

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15. To study the impact of consumption of healthy foods towards mental health of human being

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Abstract

It is commonly known that eating has a significant impact on one's health and happiness. But as time goes on, we're discovering how eating especially affects our social, emotional, and mental health. Despite the fact that there is still much to learn about the underlying connection between nutrition and mental health, there is strong evidence to support this. This paper will help you understand how your food could impact your mental health and general welfare. We'll discuss what is currently known regarding the connection between nutrition and mental health, consider particular dietary patterns that may benefit mental health, and look at easy steps you can take to maintain a positive mental state.

1. Introduction

Historically, psychiatric interventions like counseling, medication, and even hospitalization have been used to treat mental health disorders. Nutritional psychiatry, a new discipline, focuses on how diet and nutrition affect how people feel mentally. It seeks to support dietary and lifestyle changes used in the treatment of mental health disorders. We may have previously taken it for granted, but it makes obvious sense that the meals we eat affect our brains just as much as the rest of our body. Our gastrointestinal tract, or what is more popularly referred to as "the gut," is actually very tightly connected to the brain, which is one reason why our dietary choices have such a profound impact on our brains.

Keywords: Healthy, Mental, Anxiety, Nutrition

2. Literature Review

Mahan, Escott-Stump, & Krause, (2008): Food includes any natural or processed product/substance that provides nourishment for supporting life, sustaining growth, important processes, and providing energy (Encyclopaedia Britannica). Food contains macronutrients, such as carbs, proteins, and fats, as well as micronutrients, such as minerals and vitamins.

Shepherd & Raats, (2006): Any imbalance that persists for a long enough period of time can lead to both physical and mental illnesses. Like any other organ, the brain benefits from nutrients found in food. Therefore, food's nutritional qualities have an effect on mental processes associated to emotion and mood. Food can affect mood by delayed changes in brain chemistry as well as more immediate sensory stimulation from taste, savour, and smell as well as by satisfying hunger.

Tuulari et al., (2017): The extensive opioid release that occurs after eating most likely indicates satisfaction and pleasure. According to a study, eating pizza causes the release of endorphins throughout the entire brain, and, unexpectedly, drinking the bland nutritional drink causes even more endorphin production. The amount of the opioid release did not depend on how enjoyable eating was.

Shepherd & Raats, (2006): The first food and mood connection that comes to mind is the one involving coffee and chocolate. It is a common misconception that a small amount of chocolate can make us happier and more upbeat while a small amount of coffee can revitalise and increase our alertness. Theobromine and caffeine, which are stimulants, as well as the sweet flavour and some psychological mechanisms all work to improve mood, but it has also been demonstrated that eating enough chocolate on an empty stomach may promote serotonin synthesis

Rao et al., (2008): Foods high in carbohydrates stimulate the creation of 5-HT and TRP, two brain neurotransmitters. There is evidence that carbohydrates have an impact on mood and behaviour. These macronutrients are what cause the body to release insulin, a hormone that permits the conversion of glucose into cellular energy and aids in promoting the entry of tryptophan into the brain. However, it is advised to consume low glycaemic index (GI) foods like fruits and vegetables and complex carbohydrate foods like whole grains and pasta, which have a moderate but longer-lasting impact on brain chemistry, mood, and energy level. Sugars, especially sweets, can have an immediate but short-lasting effect on the mood.

Kroes et al., (2014): Tryptophan-rich foods elevate serotonin levels in the brain and affect neuronal circuits that control mood. To overcome this constraint, the tryptophan/LNAA ratio can be raised. Tryptophan competes with other large-neutral-amino-acids (LNAA) for transport across the blood-brain barrier. Tyrosine, threonine, methionine, valine, isoleucine, leucine, histidine, and phenylalanine are all components of the LNAA. The results of an experiment where the ratio of a customized drink was increased imply to improve mood by influencing the neurocircuits that control it.

Rao al., (2008): The most frequent symptom of folate insufficiency is depression. Blood levels of folate (B9) are 25% lower in depressed patients than in healthy individuals. Some neurotransmitters are directly produced by the synthesis of vitamins B6 and B12 among others Cobalamin (B12) supplementation enhances mental and cognitive abilities while maintaining the integrity of the nerve fibres' myelin sheath; On the other hand, it has been demonstrated that hunger can cause emotional alterations in mood, perception, and behaviour. This occurs mostly because high blood sugar levels stimulate release of hormones that could influence mood.

Anderberg, (2016): According to science, changes in mood are related to blood sugar levels.Without enough blood glucose, people cannot control their emotions, and when they are low on glucose, they are more likely to act impulsively, harshly, and aggressively

Van Strien et al., (2013): According to research, people react to both pleasant and negative emotions by eating. Emotional eaters eat substantially more when unhappy compared to when joyful. Additionally, persons who eat emotionally favour sweet foods over salty ones.

Gardner, Wansink, Kim, & Park, (2014): In contrast to a negative mood, which encourages immediate, effective goals like mood regulation and boosts desire for decadent foods over healthy foods, a happy mood tends to reflect long-term health aspirations.

3. Research Methodology

Analysis of hypotheses and their justifications is done using the exploratory approach. This strategy is flexible and unfettered by design. This strategy seeks to increase understanding of the issue rather than offering definitive proof. This study used a hybrid research strategy that combines qualitative and quantitative techniques. Qualitative data is used to investigate and better understand the issue while quantitative data is utilized to understand numerical facts and collect customer feedback via an online survey. In this study, open-ended questions with several response options are used, allowing participants to select one from a list of options.

Objective of the Study

This paper aims to understand that how food helps to deal with mental health issues. If you experience depression or anxiety, certain foods and nutrients may help to enhance your mental health or even work in conjunction with therapy.

4. Survey Data

- Most of the people usually eats during their working hours which is highest 36.7% and 20% people eats during the time of class and 13.3% along with their friends .
- Fast food is the most often snack chosen by the people between the meals which is 46.7% and other than that fruits is chosen which is 40%
- 43.3% people eats 3 meals a day and 33.3% people eats 4 meals a day and 10 % people prefers 5 meals a day.
- 63.3% people are the one who eats sometimes between the main meal and 30% are the one who definitely eats between the meal and 6.7% who does not eat between the meals
- 36.7% people choose breakfast as their main meal of the day and 33.3% people chooses lunch as their main meal.
- 83.3% are the people who does not have the cholesterol problem and 6.7% are the people with the cholesterol problem and 10% who does not know either they have cholesterol or not

- According to pie chart 73.3% people eats healthy and 26.7% people does not eat healthy.
- Fruits and vegetables are the two foods which is been consumed more by the people in their everyday diet.

5. Finding

According to the survey the data shows that most of the people is eating their meal during the working hours and in between the meals fast food is eaten as their snack. The total number of meals consumed in a day by the majority of the people is 3 and there are also peoples who eat sometimes between their main meals. Most of the people are thinking that they eats healthy and consume fresh homemade food choosing breakfast as their main meal of the day. Highest number of People does not have the cholesterol problem; fruits and vegetables are the two major food categories which is consumed more by the people in their everyday diet.

6. Conclusion

Complex elements that lead to the development of mental diseases are discussed in this study, and for a healthy lifestyle, nutritional knowledge, responsibility, and diversity should be taken into account. Development of mental diseases is accompanied by gastrointestinal problems, dietary deficits, and an inflammatory component. The diet has a significant impact on mental health. It matters just as much what we eat too much of as what we don't eat enough of. The wellbeing and integrity of mental health are prevented and preserved by a balanced and diverse diet. Therefore, it is important to pay more attention to medium- and long-term dietary changes. We should also consume more complex carbohydrates, plant-based foods like fruits and vegetables that contain fibre that has a positive impact on the microbial composition, and good fats that reduce inflammation. For healthy individuals, a varied diet should take precedence over taking supplements because humans do not consume nutrients in isolation and foods have a balanced composition of macro and micronutrients as well as fibres. However, following successful result-trials, certain supplements are required and advised, particularly as a treatment for mental problems, where they can effectively substitute medicine that has adverse effects.

7. Suggestions

Foods that promote good health what then should you order and place on your plate? Here is a quick guide on what to look for when you visit the grocery shop the following time. When eating, you should try for a combination.

Whole foods

Preservatives, food coloring, and other additives may contribute to or exacerbate depression and hyperactivity, according to some research. According to Sarah Jacobs, holistic nutritional consultant and co-founder of The Wellness Project, "if you have one thing to remember, it's to eat real food," which is food that has been minimally processed and contains a few good ingredients. Consider wholesome fruits and veggies.

Fiber

Fiber is a component of plant-based meals that helps your body absorb glucose, or food sugars, more gradually and prevents sugar spikes and crashes. Fruits, vegetables, and carbs high in nutrients, such whole grains and legumes, are examples foods high in fiber.

Antioxidants

These anti-inflammatory compounds can be found in particularly high concentrations in berries, leafy green vegetables, turmeric, and foods high in Omega-3 fatty acids, such as salmon and black chia seeds. Consume dark chocolate in moderation as it also contains sugar and antioxidants.

Nutrition D

Serotonin production is aided by vitamin D, which we typically obtain from sun exposure. Jacobs’s claims that mushrooms, particularly reishi, cordycep, and maitake, are an additional good source. Your doctor might also advise taking a supplement if you are vitamin D deficient. Members of Aetna may be eligible for savings on supplements; specifics are available in your plan's benefits.)

Magnesium

This necessary mineral aids in maintaining a regular heartbeat as well as neuron and muscle function. But it's also essential to the link between food and mood: A mineral shortage can harm your gut flora and result in feelings of despair and anxiety. Stock up on organic foods like dark chocolate, cacao nibs, almonds, cashews, spinach, and other leafy greens, as well as bananas, beans, and nuts.

Fermented food

Probiotics, which are specific living microorganisms beneficial for your digestive system, are abundant in fermented meals. Sauerkraut, kimchi, miso, tempeh, and the fermented beverage kombucha are a few examples. If you have high blood pressure, consume these meals in moderation or completely avoid them because they also frequently contain excessive amounts of sodium.

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16. The Impact of Artificial Intelligence on Business Education

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Abstract

Artificial Intelligence has influenced and transformed the business landscape, necessitating the business education to adapt and adhere to the arising challenges and prospects.AI-driven advancements are ready to complement the current business curriculum and bring in a new era of currency and relevance. AI-related content, including machine learning, data analytics, and the ethics guiding AI applications, will be infused across courses and programs.

Along with fostering technical proficiency, the curriculum will encourage students to think critically about the social and ethical consequences of AI. It is crucial to build AI skills. A generation of graduates skilled in AI technologies as well as their responsible and strategic usage must be raised through business education. This entails taking courses in AI governance, ethics, and strategy. The road to integrating AI in business education is not without its obstacles, though. Financial limitations and infrastructure requirements provide obstacles, and applications of AI raise ethical questions that need to be carefully considered. Additionally, protecting data privacy and guaranteeing inclusive access are crucial issues. This article explores how AI will impact the future of business education, including the curriculum and pedagogical practices and developing competencies. It also explores the potential roadblocks to AI integration in business education and offers solutions to get around them. The article offers suggestions for overcoming these difficulties. Programs for faculty development, effective resource allocation, the creation of moral standards, strong data protection safeguards, and the assurance of inclusive AI-enhanced learning opportunities are some of these.

Keywords: Artificial Intelligence, business education, AI integration, pedagogical practices, personalized learning

1. Introduction

Rapid technological breakthroughs during the Fourth Industrial Revolution have ushered in a new era when artificial intelligence (AI) is crucial in determining the direction of economies, society, and enterprises. Because of AI's revolutionary potential, business education has had to change in order to give aspiring professionals the know-how and abilities they need to succeed in a constantly changing, AI-driven corporate environment. AI is affecting business education.

The business landscape has been significantly impacted by artificial intelligence (AI), which has forced business education to change and take advantage of new opportunities and difficulties. New developments powered by AI have the potential to enhance current business curriculum and bring in a new era of relevance and currency. Courses and programmes will smoothly incorporate AI-related content—machine learning, data analytics, and the ethics surrounding AI applications. The programme will not only promote technological proficiency but also encourage critical thinking regarding the ethical and societal outcomes of artificial intelligence. The development of AI abilities is crucial. AI governance, ethics, and strategy classes are essential if business schools are to produce graduates who are adept at using AI technologies responsibly and strategically.

But there are obstacles in the way of integrating AI into business education. Obstacles include infrastructure requirements and financial limitations, and applications of AI present moral problems that need to be carefully considered. In addition, protecting personal information and guaranteeing accessibility for all are essential issues. The potential effects of AI on business education in the future, including changes to curricula and pedagogy as well as competency development is the need of the hour. Additionally, we will examine possible barriers to AI integration in business education and propose solutions. Programmes for faculty development, effective use of resources, the creation of moral standards, strong data security protocols, and the guarantee of inclusive AI-enhanced learning possibilities are among the recommendations.

Artificial intelligence refers to the ability of technology, particularly computer systems, to simulate human intelligence processes. Expert systems, machine learning, speech recognition, and natural language processing are a few specific applications of AI. The dynamic area of business education imparts knowledge of the procedures and abilities used in the corporate world. It's a broad sector where you can improve your ability to solve problems and make decisions as well as marketing and management strategies. The curriculum of many traditional business schools needs to change in order to provide students the skills they need to prosper in this quickly evolving world. These AI-related jobs will need employees with a greater skill set and orientation in areas like ethics, leadership, emotional intelligence, and change management, in addition to a foundation in the use of AI technology.

1.1 Adapting the Curriculum: Infusing AI into Business Education

1. AI-Related Content Integration

The infusion of AI across courses and programs enhances the relevance of education and prepares students to navigate AI-driven business environments. Business education programmes should easily include AI-related information, such as machine learning, data analytics, and the ethical issues surrounding AI applications. The infusion of these topics across courses and programs enhances the relevance of education and prepares students to navigate AI-driven business environments.

2. Fostering Critical Thinking

Beyond technical proficiency, business education should encourage students to think critically about the social and ethical consequences of AI. This entails incorporating courses on AI governance, ethics, and strategic AI utilization. In addition to understanding AI, students need to interact with technology in a morally and responsibly manner.

3. Developing AI Competencies

Establishing AI competencies in their students is a critical priority for business education schools. Graduates must be adept at AI technologies as well as able to strategically apply them in practical settings. This calls for developing a thorough awareness of AI's capabilities and constraints, moral issues, and the capacity to create AI-driven plans.

4. Courses on AI Governance

To develop critical thinking and ethical reasoning, business education programs should include courses on AI governance. These courses should cover regulatory frameworks, standards, and best practices for the responsible and accountable use of AI. Students should learn how AI systems are governed and how to ensure ethical compliance within organizations.

5. Ethics in AI Strategy

AI is being used by businesses more and more to create and carry out their strategies. Courses on

AI strategy ethics should be part of the curriculum to help students get ready for this scenario. The strategic implications of AI should be included in these courses, along with issues pertaining to the ethical application of AI in corporate decision-making processes.

1.2 Challenges in Integrating AI into Business Education

While integrating Artificial Intelligence (AI) into business education offers numerous benefits, it is not without its challenges. The following are some of the primary challenges that educational institutions and stakeholders face when incorporating AI into the curriculum and pedagogical practices:

1. Financial Limitations

One of the foremost challenges in integrating AI into business education is financial constraints. Implementing AI initiatives often requires substantial investments in infrastructure, faculty training, and curriculum development. Many educational institutions, especially smaller ones, may struggle to allocate the necessary resources to fully embrace AI in education.

2. Infrastructure Costs

The implementation of AI technologies, such as AI-driven learning platforms, data analytics tools, and virtual labs, necessitates investments in hardware, software, and network infrastructure. These expenses can strain institutional budgets, particularly for schools with limited financial resources.

3. Faculty Training

To effectively teach AI-related content and foster critical thinking about AI, faculty members require training in AI concepts, technologies, and ethical considerations. Organizing training programs and workshops for educators adds another layer of financial commitment.

4. Curriculum Development

Revising and updating the curriculum to include AI-related courses and content can be a time- consuming and costly endeavor. Developing new courses, designing assignments, and creating educational materials all require resources.

5. Ethical Considerations

The application of AI in education raises ethical questions that need careful consideration. These include concerns about bias in AI algorithms, data privacy, and the impact of AI on the workforce. Institutions must navigate these ethical dilemmas to ensure the responsible use of AI in education.

1.3 Business Education Challenges and AI Solutions

An excessive dependence on conventional business models: With the emergence of peer-to- peer networks, the sharing economy, and new company models, it's critical that students comprehend how these developments are transforming the way that firms function. AI can assist by offering resources for modeling, analyzing, and forecasting the viability of different business models. These resources can be included into the curriculum to give students the opportunity to investigate and contrast the effects of established and new business models. Furthermore, case studies driven by AI can demonstrate how many businesses are affected by the sharing economy, peer-to-peer platforms, and other models.

1. Over-reliance on hierarchical structures

It's critical that students learn how to manage and lead in non-hierarchical structures because of the prevalence of flat and flexible businesses in today's workforce. AI can help educate non- hierarchical organizations by offering virtual environments in which learners can try out various organizational configurations. Students can see how different organizational structures affect team relationships, decision-making, and overall performance in these settings. AI is also capable of analyzing the data produced by these tests to offer perceptions into the efficacy of various organizational configurations.

2. All-encompassing leadership style

Successful leaders of today need to be flexible and able to manage a wide variety of people and groups. A strict, one-size-fits-all leadership approach might not work in every circumstance. AI can assist by providing training in adaptive leadership and individualized learning experiences. For example, students can be exposed to a variety of situations through AI-driven simulations and role-playing scenarios, which will force them to modify their leadership approaches accordingly. Additionally, by offering real-time feedback, these simulations can assist students in identifying their areas of strength and growth.

3. Emphasis on competition

The fierce rivalry that business schools frequently highlight can result in unethical behavior and a limited focus on short-term objectives at the price of sustainability and long-term success. Tools with AI capabilities can assist in changing the emphasis from rivalry to cooperation. Students can get an understanding of the value of teamwork, moral behavior, and long-term thinking by employing AI to mimic group projects and collaborative activities. A more ethical and sustainable approach to business can be promoted by AI, which can also evaluate team interactions and offer students tailored feedback on how to strengthen their collaborative abilities.

4. Less emphasis on sustainability

It's critical that students comprehend the significance of sustainability and how it influences business practices and decision-making as customers and companies grow more environmentally sensitive. Learning platforms with AI capabilities may offer tailored content about business sustainability, making sure students get the importance of the topic. AI can also assist in simulating real-world situations so that students can assess the effects of sustainable behaviors and decide responsibly in a risk-free setting.

5. Less emphasis on design thinking

Given the growth of design-led companies, it's critical that students comprehend how to use design thinking to tackle challenging problems in business and come up with creative solutions. With the use of interactive learning modules and project feedback from AI-powered technologies, design thinking ideas and practices may be taught more effectively. AI-powered collaborative tools and virtual assistants can also promote interdisciplinary learning by fusing business, design, and technological viewpoints to provide creative solutions.

6. Outdated perspective on technology

New technologies like artificial intelligence, blockchain, and the Internet of Things are changing the way organizations run, and students need to understand how this is impacting the business sector. AI can be utilized to develop immersive educational programs that introduce pupils to cutting-edge technology. Case studies based on AI or virtual reality simulations, for instance, can be used to illustrate how blockchain, IoT, and AI are transforming company operations. Teachers may make sure students fully grasp the significance of these new technologies.

7. Undervaluation of innovation

In the quick-paced commercial world of today, innovation is a vital component of success. It might be necessary for business schools to put more of an emphasis on training their students how to think creatively, spot possibilities, and create original goods and services. AI can be utilized to create dynamic, interactive learning environments that promote original thought and problem-solving skills. AI-powered resources can support students in developing an inventive mentality by assisting them in analyzing complex data, spotting trends, and coming up with new ideas.

2. Expected AI-Driven Transformations

1.Curricular Reforms

In order to include AI-related themes and highlight the value of data-driven decision-making, business schools will need to make revisions to their curricula. Business schools will increasingly include courses in artificial intelligence (AI), machine learning, and data analytics, giving students the knowledge and abilities they need to succeed in the AI-driven business environment.

2. Teaching Methods

Personalized learning platforms, virtual assistants, and adaptive assessment systems, among other AI-powered learning aids, will completely transform the way that education is delivered. With the use of these resources, educators will be able to customize the curriculum to meet the needs of each student and improve learning outcomes by offering focused assistance and direction.

3. Faculty Training and Development

To provide instructors with the requisite AI knowledge and awareness of its possible uses in the classroom, business schools will need to make investments in faculty training and development initiatives. This will guarantee the smooth incorporation of AI into business education and assist in addressing faculty reluctance.

4. Infrastructure and Resources

Business schools need to make the necessary investments in hardware, software, and pertinent datasets in order to enable AI integration. To guarantee access to these resources and remain current with AI developments, forming alliances with businesses and governmental entities will be essential.

3. Conclusion

Artificial Intelligence (AI) has become a powerful force in today's society, changing several industries and the way corporations operate. To adequately prepare students for the constantly changing market, business education must therefore adapt to the quick advancements in AI. Including artificial intelligence (AI) in business courses is crucial to developing a thorough grasp of the technology's implications and applications in a variety of industries. This can be achieved by creating new courses specifically focused on AI or by adding AI modules to already-existing courses like marketing, finance, and operations management. Students will be able to study AI's practical applications as well as its ethical, legal, and societal implications through this kind of Artificial Intelligence is reshaping the business landscape, necessitating a corresponding transformation in business education. The infusion of AI-related content, critical thinking about AI's societal implications, and the development of AI competencies among students are pivotal in preparing future professionals. While challenges such as financial limitations and ethical concerns exist, these can be overcome through faculty development programs, efficient resource allocation, the establishment of ethical guidelines, robust data protection measures, and a commitment to inclusive AI-enhanced learning opportunities. Business education must adapt and embrace AI to empower students with the skills and knowledge needed for success in the AI-driven world.

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