INVESTING IN THE NEW MILLENNIUM

Editor
Robina Chetri

INVESTING IN THE NEW MILLENNIUM: *Ushering in a new era of finance, this book offers a comprehensive look at navigating the investment landscape of the 21st century. This first edition compiles insightful research papers from a distinguished group of authors. Whether you're a seasoned investor or just starting your financial journey, this book equips you with the knowledge to make informed decisions in our ever-evolving economic landscape.*

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From the Editor's Desk

Dear Readers

It is with great pleasure and anticipation that I introduce you to our latest work, "Investing in the New Millennium."This book represents the collective wisdom and insights of some of the most distinguished minds in the field of investment and finance today.

As we navigate through the rapidly evolving landscape of the 21st century, the principles and strategies of investing have undergone significant transformations. New technologies, global interconnectedness, and unprecedented economic challenges and opportunities are reshaping the way we think about investments. It is within this dynamic context that this book seeks to provide a comprehensive guide to modern investing.

Each research paper of this book delves into critical aspects of contemporary investment practices, offering valuable perspectives on a range of topics from sustainable investing and cryptocurrency to FinTech Applications and Initial Public Offerings. Our contributors, each an expert in their respective fields, have meticulously analysed trends and shared their forward-thinking strategies to help you make informed decisions. My journey as the editor of this book has been incredibly rewarding. It has involved collaborating with brilliant authors, curating their invaluable contributions, and weaving them into a cohesive narrative that addresses the needs of both novice and seasoned investors. I am confident that this book will serve as a vital resource, equipping you with the knowledge and tools required to navigate the complexities of modern investing.

I would like to extend my heartfelt gratitude to our contributors for their dedication and hard work. Their expertise and passion for the subject matter are evident on every page. Additionally, I am deeply appreciative of the support and encouragement from our readers and the entire publishing team, whose efforts have made this publication possible.

As you embark on this journey through "Investing in the New Millennium," I hope you find the insights and strategies presented here as enlightening and inspiring as I have. May this book not only enhance your understanding of investment but also empower you to achieve your financial goals in this new era.

Happy reading and successful investing!

Warm regards,

Robina Chetri
Editor

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AWARENESS ON PROVIDENT FUND : EYEING FROM CONSUMERS' LENS

✍**Anupam Dutta**

ABSTRACT

The consumers are the important part of a financial product and based on consumer's perceptions and their attitudes the success, failure, and future of a product are dependable. This concept is also applicable in the case of provident funds though it is managed by the government. The scope of provident fund marketing is very high as it is an intangible product with lots of potential features included like low risk, high return, security, etc. Therefore, it is utmost important to have proper awareness level of the consumers for getting benefits of the funds. Thus the study of the awareness level of the consumers holds great interest and crucial topic for investigation. Proper awareness will also influences and persuades the consumers to take major decisions regarding their investment. Thus, the research work attempts to throw insights into the awareness level of consumers towards the provident fund and also to examine the impact of various factors affecting consumers behavior towards the Provident fund. The study will employ primary data collected

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through well-structured interview schedule from different consumers(nominees) of provident fund.

Keywords: *consumer behaviour, provident fund, investment decision.*

Introduction

Consumers are a key aspect of a financial instrument, and the viability, success, and future of a product are all determined by their perceptions and attitudes. Consumer behaviour refers to the thought process and physical action that people engage in when analysing, purchasing, utilising, or discarding goods and services. This notion also applies to provident funds, even though they are managed by the government. The potential for provident fund marketing is vast, with many possible benefits such as low risk, high return, and security. The popularity of the provident fund is expanding among investors, but consumer behaviour on the provident fund is mostly unknown. Consumer behaviour refers to how consumers make decisions about the purchase, consumption, and disposal of goods, services, time, and ideas.

Although the customers and consumers are the different from the each other, customers are those investors who invest in the provident fund and the consumers are the nominees of those provident fundholders as after the death of the holder the benefits of the fund have been received by them. In the present study the researchers only consider of the Provident Funds. Provident Fund is a financial product that grows and develops with the help of its regulators and customers. As a result, a study is essential to comprehending customers expectations, preferences, and dislikes regarding the provident fund. Therefore,

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this study is an attempt to address the awareness level of consumers towards the provident fund and also to examine the impact of various factors affecting consumer behavior towards the Provident fund.

Literature Review

Choudhary, S. (2016) conducted study on consumer perceptions on life insurance and observed six influential factors, including customized and timely services, tangible benefits, improved company reputation, convenience, higher service quality, and customer relationship management. The motive of the study was to determine the consumer satisfaction and awareness among the life insurance clients towards life insurance plans. Convenience sampling was employed by the researcher to gather consumer data, and statistical techniques such as factor analysis and percentage analysis were utilized to analyses the data. As per findings, insurance businesses in the private sector may increase the value of their brands by introducing fresh, cutting-edge products and drawing in new clients by reducing plan premiums. In the end, the policyholder's discontent with private insurance providers is reduced by the premium reduction. Rajavardhan, R. and Jahangir, Y. (2015) explored the purchasing habits of rural Telangana residents concerning the life insurance products. They discovered that consumers' decisions on life insurance plans are significantly influenced by demographic and economic factors. This study's goals were to identify the attributes influencing consumers' attitudes and perceptions of life insurance as well as the awareness levels of various customer groups and demographic data. Factor analysis statistics used by the researchers to figure out the hypothesis after gathering data from 200 samples. By increasing the product mix will assist the growth of insurance business and its market at a lower cost, and

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consumers will base their policy decisions on the variety of criteria. Tati, R. et al. (2018) conducted research to ascertain variables that influencing the decision of customers while purchase a life coverage plan. The basic aim of the research was to investigate potential correlations among annual income and variables that impact life insurance investing decisions. Chi-square test is a statistical instrument used to evaluate the hypothesis; the researcher collected data from the 75 insurance investors. They result obtained from the study that consumers had a generally favorable opinion of life insurance businesses. The outcome showed that there is no correlation between the yearly income of investors and the variables affecting their decision to purchase life insurance. Sharma, N. (2018), in her paper entitled revealed factors that influence consumer perception as per the output of this study are consumer loyalty, service quality, ease of procedures, satisfaction level, company image, and company-client relationship. Rao, G. S. (2012), found that from the factors like agents, advertisements, friends or relatives, family members, family protection, tax relief, old age income, the most influential factors are agent and family protection. Muthusamy and Yuvarani (2016), revealed that in the insurance business customer is the most important factor and demographic factor play a pivotal role in purchasing a life insurance product. Padmaja, V. et. al. (2018), revealed the perception level of investors towards life insurance products and revealed service benefits is the most influential factors for buying a life insurance policy. Singh et.al. (2014), showed that among the various factors only the age of the respondents has a significant impact on consumer perception related to service quality of life insurance company. Hakhu (2017), highlighted the fondness of investing in the life insurance policy by the

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customer mostly due to its return and tax savings also to minimize risks i.e. security. Sathishkumar et. al. (2018), revealed that there is a significant relationship between occupations and customer investment decisions in life insurance but there is no relationship between gender and customer life insurance investment decision. Basaula (2017), along with the other factors launching innovative products, increased institutional delivery, and on-time claim settlement attracts the customers for life insurance policy repurchase.

Objectives of the study

a) To observe the awareness level of consumers on the Provident Fund.

b) To study the impact of various factors affecting consumer behaviour towards the Provident Fund.

Importance of the study

Provident fund scheme is regulated by the government and it is a mandatory retirement savings scheme. There is a significance of provident fund as an investment option for government employees and high earning individuals all over India. This investment avenue is limited among the government employees and some of the conscious individual investors. The nominee of the provident fund also plays a pivotal role in the entire investment tenure. In the course of the absence of the investors, they have the right to withdraw maturity value after the end of the period. Therefore the nominee of the provident fund should concern about investment including all conditions associate with it. Their awareness regarding the provident fund investment by the customers is essential to absorb the return from the fund in case of non-existence of the customers. Though investors invest a portion of their income in the provident fund, the researcher realized the importance of conducting a study to

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highlight the level of consumer awareness, and an attempt was made to investigate the Awareness on Provident Fund: Looking Through the Eyes of Consumers by using the Lakhimpur district as a case study.

Methodology

The present study is analytical in nature. The researcher used primary data and secondary data in the research for achieving the objectives set for the study and also to address the research question. The required secondary data for the study has been collected from different print and e-journals, various types of the database of UGC for the researcher, articles related to mutual fund scheme or provident fund scheme and life insurance, annual report of the EPFO, GPF or PPF scheme regulations, government offices, RBI report and guidelines related to provident fund.

Primary data has been collected from the consumers (nominee) of the provident fund scheme by using a well-structured interview schedule. In this case, nominee means the nominee of those investors who were considered as a customer in the provident fund scheme, and here nominee is treated as a consumer of the provident fund scheme. The researcher explains the role and importance of their opinion or response in the entire research process. Further the study areas is confined to Lakhimpur district of Assam, India for the present study. This study area was selected by the researcher purposively because this District is considered as one of the rapidly developing Districts of Assam. There are lot of people having Provident Funds but no concrete data regarding the records have been found. Therefore considering the population as unknown, the researcher purposefully selected 100 samples.

Tools used for Data Collection

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Data is the utmost important part of doing research work, so without accurate and authentic data research work cannot go in the right direction. To find out the answers to the research questions, the researcher used a well-structured interview schedule for the collection of required primary data from the 100 sample size of the respondents. A pilot survey has been conducted by the researcher by collecting data from the 25 respondents by using the convenience sampling technique to test the internal consistency of the questions included in the interview schedule. After collecting the data for the pilot survey from the respondents the researcher checking the reliability of the data using Cronbach's alpha value. In this stage, the researcher found the schedule suitable for collecting the data as it passed the internal consistency test so the same questions/ statement of assertions were used for final data collection.

Reliability test:

Table 1:- Reliability Statistics of Schedule for Customer
Cronbach's Alpha 0.960

From table no. 1 we have seen that cronbach's alpha value of questionnaire is .960 which is greater than 0.75 so as per the criteria the schedule is reliable and passes the internal consistency test.

Technique used for Analysis

The researcher used both qualitative and quantitative techniques for analysis. The following statistical tools were used in the study to fulfill the objective of the study.

a) Impact Index: The American customer satisfaction index (ACSI) is an economic or statistical indicator that measures the level of satisfaction of the customers across the united states economy. This indicator was originally developed by Claes Fornell (Sharma, 2016) . In this study, the researcher adapts

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this tool also to find out the highly influential factor towards the provident fund.

For calculating impact index three measures are essential which are weighted score, maximum score & sample size.

Weighted score= 5 * SA + 4 *A + 3 * N + 2 * D+ 1* SD OR 5* SA + 4*A+ 3 * N + 2* NA + 1 * NAA

(SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree)

Maximum Score= Total respondents * 5

Based on impact index percentages the range is selected by the researcher to differentiate the impact levels from one another. The impact range has been categorized as:

Table 2:- Impact Index Range(%)

Range (Percentage)	Impact Index
0%-25%	Low
25%-50 %	Somewhat
50%-75 %	Moderate
75%-100%	High

b) Awareness Index: Based on the American customer satisfaction index (ACSI), in this study, the researcher adapts this tool to measure the awareness level of customers in the provident fund.

Results and Findings

Table 3: Demographic Profile of the Customers.

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Table1: Demographic Profileof the Customers		Frequency	Percentage
GENDER	Male	22	22%
	Female	78	78%
AGE	Below 25 years	5	5%
	25 Years - 34 Years	12	12%
	35 Years - 44Years	27	27%
	45 Years - 54Years	46	46%
	55 Years -64 Years	10	10%
MARITAL STATUS	Married	94	94%
	Single	6	6%
INCOME GROUP	Between Rs.250000-Rs.500000	61	61%
	Between Rs.500000-Rs.1000000	21	21%
	Between Rs. 1000000-Rs.1500000	15	15%
	Above Rs.1500000	1	1%
EDUCATIONAL QUALIFICATION	Uneducated	4	4%
	Below 10th	19	19%
	10th pass	8	8%
	12thpass	28	28%
	Graduate	34	34%
	Diploma Holder	5	5%
	Post Graduate	2	2%
	Professional	4	4%
FAMILY NATURE	Joint	20	20%
	Nuclear	80	80%
EARNING MEMBER	1	61	61%
	2	35	35%
	3	2	2%
	4 & Above	2	2%
RESIDENTIAL STATUS	Rural	64	64%
	Urban	36	36%
ANNUAL SAVINGS	Below 10%	47	47%
	Between 11%-20%	12	12%
	Between 21%-30%	24	24%
	Between 31%-40%	9	9%
	Above 40%	8	8%

To get idea about the provident fund Socio-economic factors like Gender, Age, Marital Status, Income group, Education

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qualification, family nature, Earning member in the family, Residential status, Annual Savings become crucial determinants on the basis of which consumers got information regarding the term and reference of provident fund. The distribution of demographic profile of the consumers is shown on the table no 3 and it is identified from the table that 78% consumers are male and 22% consumers are female, majority 46% consumers fall in the Age group of 45 years to 54 years, Majority 94% of the consumers are married, 51% consumers income is in between Rs.250000- Rs.500000, consumers are higly qualified as the 34% consumers are graduated from different discipline and majority 64% consumers are resided in the rural area of Lakhimpur district of Assam.

Table 4:- Consumers Awareness Level on the about the provident fund scheme.

Awareness on	Very High	High	Moderate	Low	Very Low	Weighted Value	%	Awareness Index
Terms and references of the provident fund	3	42	31	11	12	310	62%	Moderate
Interest rate of the provident fund	3	40	31	13	13	307	61.4%	Moderate
Maturity benefits of the provident fund	28	38	12	10	12	360	72%	Moderate
Nominee benefits of the provident fund.	7	25	30	25	13	288	57.6%	Moderate
Documentation procedure for closing provident fund account	4	13	33	29	21	250	50%	Somewhat
Amount of deduction from the salary of customers for the provident fund account	32	40	8	10	10	474	94.8%	High
Tax exemption through the provident fund investment	15	32	21	21	11	319	63.8%	Moderate
Claim settlement procedure in case death of the holder	8	22	20	31	19	269	53.8%	Moderate
Condition for taking loan from the provident fund account	9	32	27	12	19	297	59.4%	Moderate
Universal account number	3	10	18	36	33	214	42.8%	Somewhat

Source: Primary data

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The table no 4 shows the consumer's level of awareness on the general awareness about the provident fund scheme. It is revealed from the above awareness index calculations that consumers have high awareness index in the awareness about the amount of deduction from the salary of the customers for the provident fund.

The consumers have the moderate awareness index in the awareness level on the terms and references of the provident fund, interest rate of the provident fund, maturity benefits of the provident fund, nominee benefits of the provident fund, tax exemption through the provident fund, claim settlement procedure in case of death of the provident fundholder.

The consumers have a somewhat awareness index in the awareness level about the documentation procedure for closing the provident fund account and universal account number of the provident fund.

Thus it can be observed that the consumers of the provident fund have moderate awareness regarding the general terms of the provident fund. However, the awareness level of consumers on the amount of money deductions from the salary of the customers for the provident fund is high and most of the consumers are about this. Further, the awareness level of consumers regarding the universal account number of the provident fund is relatively low.

Table 5:- Awareness index on the consumer's awareness about the activity of the customers regarding the provident fund scheme.

Awareness on	Very High	High	Moderate	Low	Very Low	Weighted Value	%	Awareness Index
Amount of money provident fund holder saves monthly through Provident Fund.	25	42	17	11	5	371	74.2%	Moderate
Term of investing in the Provident Fund.	24	47	13	11	5	374	74.8%	Moderate
Mode of payment in the Provident Fund by the customer.	31	48	6	9	6	389	77.8%	High
The total value of the investment in the Provident Fund by the customer.	14	21	33	20	12	305	61%	Moderate
Percentage of monthly income saves through the Provident Fund by the customer.	5	14	42	28	11	274	54.8%	Moderate

Source: primary data

The above awareness index table no 5 shows the consumer's level of awareness about the activity of the customers regarding the provident fund scheme. It is revealed from the awareness index calculations that customers have high awareness index regarding the level of awareness on the mode of payment in the provident fund by the customers. The consumers have the moderate awareness index about the awareness level on the amount of money provident fund holder save monthly through the provident fund, Term of investing in the provident fund, the total value of the investment in the provident fund by the customers, percentage of monthly income saves through the provident fund by the customers.

Table 6:- Awareness on the Online Services Available

Awareness on	Very High	High	Moderate	Low	Very Low	Weighted Value	%	Awareness Index
Premium payment through Provident Fund portal	0	9	18	37	36	207	41.4%	Somewhat
Provident Fund balance check online	3	13	14	32	38	211	42.2%	Somewhat
Merge of two Provident Fund account	1	4	21	35	39	193	38.6%	Somewhat
Procedure to complete the KYC Process of provident fund	0	4	19	36	41	186	37.2%	Somewhat
Online withdrawal claim online	0	1	16	36	47	171	34.2%	Somewhat
View the claim status through provident fund portal	0	3	13	36	48	171	34.2%	Somewhat
Lodging Provident Fund Grievances	0	1	12	36	51	163	32.6%	Somewhat

Source: primary data

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The awareness index table no 6 shows the consumer's level of awareness regarding the online services available to the consumers. It is revealed from the above awareness index calculations that consumers have somewhat awareness index in the awareness level about the online services such as premium payment through provident fund portal, provident fund balance check online, merge of two provident fund account, the procedure to complete the KYC Process of provident fund, online withdrawal claim online, view the claim Status through provident fund portal, lodging provident fund grievances

Thus it can be inferred that the consumers of the provident fund still unaware about the online services available in the provident fund which can be stated as a bad sign for them because due to which they are not able to access the online services available for them.

Table 7:-Impact index on the influential factor responsible for investing in the provident fund.

In this section, impact index analysis has been carried out based on the indicator given by the American consumer satisfaction index (ACSI) specifically to find out the influential factors that affect the consumers in the provident fund through certain predetermined factors extracted from the review of the literature.

VARIABLE NAME	VERY HIGH	HIGH	MODERATE	LOW	VERY LOW	WEIGHTED VALUE	MAXIMUM VALUE	%	IMPACT INDEX
TAX BENEFITS	23	29	35	10	3	359	500	71.8%	Moderate
SECURITY	41	29	22	6	2	401	500	80.2%	High
SAVINGS	51	31	12	4	2	425	500	85%	High
HIGH RETURN	38	31	21	9	1	396	500	79.2%	High
RISK COVEREGE	24	33	29	10	4	375	500	75%	High
SERVICE QUALITY	9	24	40	22	5	310	500	62%	Moderate
CONSUMER CONVENIENCE	23	36	23	12	6	358	500	71.6%	Moderate
MODERATE RISK	6	40	37	14	3	332	500	66.4%	Moderate
EASY TO INVEST	16	37	34	9	4	352	500	70.4%	Moderate
SETTLEMENT OF CLAIM	16	34	30	14	6	340	500	685%	Moderate

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CONVENIENT PAYMENT SYSTEM	26	28	28	14	4	358	500	71.65%	Moderate
LIQUIDITY	4	26	48	19	3	309	500	61.85%	Moderate
RELIABLE	12	40	30	14	4	342	500	68.45%	Moderate
EMPLOYERS CONTRIBUTION	38	25	21	13	3	382	500	76.4%	High
FAMILY PROTECTION	43	30	17	8	2	404	500	80.8%	High
MATURITY BENEFITS	17	37	34	11	1	358	500	71.6%	Moderate
GRIEVANCES	2	10	37	40	11	252	500	50.4%	Moderate

Source:-Primary Data

The impact index table no 7 shows the factor influencing consumers for investing in the provident fund. It is revealed from the above impact index table that consumers have a high impact index for the factors Security, Savings, High return, Risk coverage, Employers contribution, and Family protection. The consumers have a moderate awareness index about the factors Tax benefits, Service quality, Convenience, Moderate risk, Ease to invest, Settlement of the claim, Convenience payment system, Liquidity, Reliable, Maturity benefits, and Grievances Redressal. Now a day's tax-exempted investment tools are popular among individual investors due to the increasing income level of people across the country. Investors have a high tendency to keep their savings in such types of schemes. A provident fund is an exempt-exempt-exempt (EEE) type of scheme where investment value, interest value, and maturity value are free from tax. Though consumers have the rights to the maturity value of the provident fund in case absence of the holder, so these tax benefits factors in the provident fund moderately influence them.

The provident fund is one of the government recognized fund which managed by the government of India. The return from the fund at the time of maturity is assured and fixed and therefore the investment value and the maturity value are secured in the case of the provident fund. There are no chances of losing the maturity value under any circumstances. In case absence of

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the provident fundholder, the nominee can claim the death maturity value and the nominee can withdraw the death maturity value without any deductions. Thus the factor security is highly influential for the consumers.

Through the provident fund, the investors save excess money for future contingencies which creates regular saving habits among them. This monthly savings is helpful for the family in case of the sudden death of a key member of the family or for meeting a future financial crisis. The most effective advantage of this fund is to provide financial benefits to the family in case of death. This systematic investment plan becomes a huge value in the future. Thus the consumers are highly influenced by the savings factor.

A small portion of their monthly income saves in the provident fund by the investors. After a long period of investment in the fund the interest and other contributions are added to the fund along with the monthly premium. These all create an enormous amount until the maturity date. So maximum return is possible in the case of provident fund and consumers are in favour of high return potential. Therefore the factor of high return has highly influenced the consumers of the provident fund.

During the period of financial emergency in case absence of key members of the family or case of a medical emergency the provident fund always helpful for both the customers and consumers because the provident fund provides an easy withdrawal facility in certain circumstances during the requirement of funds. Thus these risk coverage factors affect the consumers most.

The consumer's view on the service quality of the consumers is moderately affected by the factor service quality because they are not much familiar with the service levels of the

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scheme. The consumers association with the scheme depends upon certain circumstances i.e. death of the customers.

The factor moderate risk influences the consumer moderately due to all types of risk coverage facility availed through the provident fund and in that sense provident fund investment is a safe and reliable one with constant growth and comparatively risk-free than the other investment avenue.

Investment in the fund is associated with the customers of the provident fund and the consumers are indirectly associated with the provident fund. But as per the opinion of the consumers, investors can easily invest in the provident fund without any hassle. Thus the consumers were moderately influenced by the easy to invest factor taken for the study.

The claim settlement incident occurs at once in case of death of the provident fund holder still it must be understood by the consumers for deriving benefits from the fund. As per the view of the consumers claim settlement of provident fund is better than the other such types of fund and this factor moderately influenced the consumers.

The researcher found from the study that most of the consumers have awareness regarding the premium payment in the provident fund by the customers. The consumers have a positive attitude towards the monthly premium payment in the fund because they knew that an investor can easily make his/her monthly premium payment in the provident fund through salary deduction/RTGS/ NEFT/online banking/cheque, etc. Therefore this factor is moderately influential for the consumers as they are not directly associated with the premium payment.

The researcher found the view of the consumers regarding the liquidity of the fund. A customer can temporarily withdraw the requisite money for certain circumstances from

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the fund and need to return based on equal monthly installments to the fund. The nominees are also, directly and indirectly, benefit from that amount of temporarily available loan. This temporary loan taking the facility from the fund help the customers during the financial emergency and the consumers also get benefit from it. Therefore the liquidity factor is moderately influential for the consumers of the provident fund.

The provident fund is not subjected to any market risk and there are no chances of loss investment value from the provident fund in the near future because this fund is managed and controlled by the government. Therefore as per the opinion of the consumers, the reliable factor is moderately influencing the consumers. The consumers also keep faith in the fund that they will get a proper return from the fund in case of the death of the provident fundholder.

As in the case of GPF and EPF, the employers provide certain contributions towards the fund and interest income at an interval is also available in every type of provident fund. This contribution of the employer indirectly beneficial for the consumers of the provident fund because it builds a huge corpus at the time of maturity. Therefore, consumers think it is an important aspect of the fund, and results of the impact analysis reveal it is a highly influential factor for them.

The provident fund provides death benefits in case of the early death of the holder and death benefits are available for the nominee assign by the customers. In due course consumers of the provident fund can withdraw all the maturity value by go through the proper channel. The prime focus of the holder is to provide financial benefits to the family members in case of his sudden death. So, the nominee can be met up the contingencies with that of money and this study reveals that the family

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protection factor is highly influential for them.

Maturity value can be withdrawal by the holders himself but in case of his absence, only the assigned nominee can withdraw the maturity value as per the regulations stated earlier. The concerned nominee is engaged with this section of the investment plan. So the maturity benefits factor moderately influenced the consumers.

In case of occurrence of any problem regarding the withdrawal of death claim, the consumers of the provident fund can lodge a dispute against it. Consumers should be aware of the grievances redressal mechanism offered by the scheme to overcome any barriers associated with it. Through this study found by the researcher that most of them are unaware of their rights to lodge a dispute against the exploitation. Therefore this feature is moderately influential to the consumers in the provident fund.

Findings of the study

From the study, it has been observed that mostly 86% of the nominee's relations with the provident fund holder as their spouse. It has been inferred from the study that nominees accumulate information about the provident fund from their friends, relatives, and family members. It depicts the person associated with the nominee provide them important pieces of information regarding the provident fund. It has been observed that consumers have high awareness about the mode of payment to the provident fund used by the customer. Further, the consumer's have moderate awareness about the other four activities which are the amount of money provident fund holder save monthly through the provident fund, the term of investing in the provident fund, the total value of the investment in the provident fund so far as, by the customer, percentage of monthly

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income saves through the provident fund by the customers.

Regarding the awareness index on the consumer's general awareness about the provident fund scheme, it has been inferred that consumers only have high awareness towards the value of contributions made by the customers for the provident fund. Further, the consumers have a moderate awareness level on the terms and references of the provident fund, interest rate of the provident fund, maturity benefits of the provident fund, nominee benefits of the provident fund, tax exemption through the provident fund, and claim settlement procedure in case of death of the provident fundholder. Then consumers have a somewhat level of awareness about the documentation procedure for closing a provident fund account and universal account number of the provident fund. It has been inferred that consumers have somewhat awareness level about the online services such as premium payment through provident fund portal, provident fund balance checks online, merge of two provident fund account, the procedure to complete the KYC Process of provident fund, online withdrawal claim, view claim status through provident fund portal, lodging provident fund grievances.

Suggestions

It is suggested that authorities should organize awareness campaigns for the consumers. Further it is suggested that in order to make investment in provident funds, the authorities should come up with the use of technologies and social medias in dessiminating latest and updated information regarding the provident fund investment to the investors. This will help the investors in keeping themselves up to date with the latest information about the fund and help the investors to take future decisions regarding the fund based on those information.

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Conclusions

Consumer behaviour is extremely important nowadays since a product's success or failure is determined by the consumers' purchasing decisions and attitudes toward the product. Be it investment products or any other products consumers behavious and perception plays a vital role which is backed by the awareness level of the consumers. The paper also focsses on the different factors which have some of full influence on the behaviours of the consumers of provident funds. Further, the study revealed that the overall awareness level of the consumers is satisfactory considering all the aspects. It is very much essential to provide more and more awareness to the consumers as it will help the consumers to take quick decision regarding provident fund investment in the absence of investors. From the study, it has been found that security, risk coverage, savings for meeting future contingencies, family protection, and high return in the investment are the major factors for which the consumers usually invest their money in the provident fund which is in line with the previous results.

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VOLUNTARY CARBON MARKET : A FUTURISTIC SUSTAINABLE INVESTMENT PLATFORM AS WELL AS A STEP TOWARDS SUSTAINABLE DEVELOPMENT

✍**Birinchi Arandhara**

ABSTRACT

In the 21 st century one of the hectic challenges is to protect the environment and to build up a sustainable society. Every activities of human being are negatively affecting our ecosystem and equivalently these activities are inseparable from human beings. And if we are unable to stop these anti-environment activities' by which our planet is affected then in a very short span of time there will be no existence of living beings in this planet. Therefore every nation is trying their best to bring down these nature destructing activities by signing various inter-nation agreements. Montreal protocol, Rio summit, Kyoto protocol, Paris agreement are some known treaties among various countries where they set up various goals to achieve together to protect the planet from detriment because we can't

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let our future generation to suffer due to our own mistakes. Introduction of carbon market as well as carbon credit is a very incredible initiative towards green practices and sustainable development. This concept was originated from Kyoto Protocol which was signed in 11 December 1997 among 192 nations. The paper is designed to give an insight about the overview of carbon market and carbon credit and especially voluntary carbon market, its working mechanism and growth of voluntary carbon market. In future it will be a very good platform to invest capital which will give monetary benefit along with environmental benefit.

Keywords: *Sustainable investment, carbon market, voluntary carbon market, carbon credit.*

Introduction

Environment is the place where people live and perform their day to day activity but unfortunately the environment is getting polluted by various human activities. These pollutions like soil pollution, water pollution and air pollution is causing climate change and climate is bringing various challenges to the human lives. And we can that we suffering because of our wrong practices. So it's time for us to bring a change or else it will create a serious problem for the entire mankind. Since industrial revolution had taken place significant quantities of green house gas released had taken place till date and most importantly agriculture sector comes first in releasing GHG emission in most of the countries. The fifth assessment report of intergovernmental panel on climate change states that extreme weather on the planet has been increasing since 1950s and heavy rainfall, droughts, floods are occurring in a high level which are affecting the

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economic activities. And emission of carbon dioxide is a one of the important reason for the climate change. The increasing trend of climate change is creating a huge barrier in the economic development of country .Emissions are coming from such activities which are very essential also in our day to day life. Without these activities it will be difficult to manage our life and hence the situation is crucial where one side there is huge challenge coming through climate change and on the other hand all those activities which can't be avoided. So we have to manage our activities in such a way so that it does not affect our normal life and environment too. Under the Indian administration, the G20 in 2023 has a theme on "One Earth, One Family, One future" which will emphasis on sustainable environment with the aim of achieving greener planet earth.

Carbon market is a great initiative undertaken to reduce carbon emission and also act as a tool where a nation can earn by emitting carbon. The Kyoto Protocol in the year 1997 was the first time that international parties agreed to meet regarding carbon market but as two nations i.e. US and China being absent from that treaty universal adoption restrained. In the year 2015 there is a slight change when 196 parties at COP21 signed an agreement known as Paris agreement. This agreement is an international treaty with a goal of managing climate change and to reduce global emission of carbon dioxide and more importantly to make the countries accountable for actions related with carbon emissions.

Companies are striving hard to make a change in the climatic condition by curbing carbon to a greater extend and many efforts have been taken by them to reduce green house gas emission but yet there are some companies who have found that they cannot eliminate emission fully or even reduce them as

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a result they will have to rely on carbon credit. As per Mckinsey Sustainability report (2021) made an estimation that the demand for carbon credit could increase to a 15 factor by the year of 2030 and it would also increase by a factor of 100 by the year of 2050.

Literature review

The study consists of an exploration and analysis of the ideas propounded by Yun Zhang on carbon market. Moreover, the papers also refer to the ideas of Yuqing Zhao, Neng Shen and Rumeng Deng along with papers of Nishtha Singh and Vaibhav Chaturbedi on carbon market.

Types of carbon market

There are broadly two type of carbon market which is operating at present time.

a) Compliance carbon market
b) Voluntary carbon market

Compliance market

It is the market place where emitters can obtain and surrender emission permits or carbon credits in order to meet their legally binding goals on green house gas emissions. Compliance markets are strictly regulated and supervised by governmental bodies. Kyoto protocol introduced three market mechanisms to help the countries to achieve their climate goals in a most cost efficient ways. The mechanisms are

a) Emissions trading
b) Clean development mechanisms
c) Joint implementation

Emission trading is under there are two system used one is cap and trade system and another one is baseline credit system. Under Kyoto protocol and Paris agreement countries have their goals to reduce green house gas emissions and each country has

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a cap on green house gas emissions. The cap decreases every year by ensuring that total emissions fall. Countries that have excess permits which are not used are allowed to sell to those countries that are over the targets. Under cap and trade system governments set a cap on emission and issue a quantity of allowance in accordance with this cap. Emitters must hold allowances for every ton of green house gas they emit. Emission trading not only work on international level it is work on domestic level also where it can be traded between companies in a particular country. Typically country wide cap is then allocated to the main producing companies which mean largest emitters also have the maximum amount of emissions that they can allow themselves. This allocation to the companies is done in two ways, the first one is just to give allowances for free and the second one is to sell allowances on auction.

Every company has its own and particular business plan and they are well known about their present as well as future functions. Under base line method the company will be able to calculate its possible amount of green house gases that will be produced by the companies. And this will be the base line. If any particular companies work in an efficient way where they did not touch the base line by reducing their GHG emission then the company will be able to convert the reduction amount into carbon credits and later on they will be able to sell the carbon credits to the companies which have crossed the base line. It is important to remember under baseline and credit systems is that to make sure that trading of carbon credits brings any real climate benefits every single carbon traded has to be backed by emission reduction which are real, additional, verifiable and permanent .real in the sense if the carbon credits was issued then somewhere in the world one metric ton of CO2 equivalent was either prevented

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from being emitted or was removed from the atmosphere. Additional means that without this mechanism for example without this particular project removal of GHG would be possible it means it is a extra effort. Verifiable means one can track this removal like how it was done and by whom it was done. And permanent means that this 1metric ton of CO2 equivalent gases will not get back into the atmosphere. Most importantly carbon emission reduction projects should not bring any negative impact on local communities.

The set of compliance mechanisms belonging to the baseline and credit systems is keep changing. There is a separate mechanism for generating carbon credits by aviation industry and agricultural industry will be different.

It is not mandatory for business houses to reduce their own greenhouse gases emissions rather they can invest in other projects of other companies also where they can help them to reduce their emissions and can earn carbon credits as a return of their investment. And to implement this logic into reality two major mechanisms were introduced under the Kyoto protocol they are clean development mechanism and joint implementation. Clean development mechanism is about purchasing carbon credits by emitters from developed countries from carbon offsetting projects in developing countries. On the other hand joint implementation is about purchasing carbon credits by developed countries from developed countries.

The main reason behind having different mechanisms under compliance markets is that companies can choose the best according to their capabilities and willingness.

Voluntary carbon market

Voluntary carbon market is a market where company or individual can buy carbon offsets absolutely voluntarily just

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because they want not due to compliance or legal bindings. There may be some motivation of companies who participates under voluntary carbon. Companies use this strategy to maintain their goodwill and improve marketing strategy for making strong market position because new generation is very conscious about the environment so when a company will involve in projects which are related with reduction GHGs they will frame a good image in the minds of people as a zero carbon emitters. There can be two companies in a locality; one is having a plant from where emission is going on and on the other hand there is an organization that is only related with plantation of trees. The second one is earning carbon credits by their activities and here the first one who is emitting carbon can purchase carbon credit voluntarily from that organization.

Easy Jet, Shell, BP, Microsoft, Google, Amazon, Nestlé, Unilever, Disney and many other companies have made major announcements over the last year about their intention to invest in carbon credits and the underlying projects, making it clear that offsetting is key to their sustainability strategies

Mechanism to invest in carbon credit

There are various mutual funds and exchange traded funds (ETF) where people can invest their money and get a good amount of money from these funds. Like normal mutual funds where money is collected from people and invest the money in certain sector and get return in here also money is invested. People can also buy carbon credit directly from platforms like Nori, Gold Standard and Southpole etc. People can buy these carbon credits from these websites at a lower price and they can sell these credits to those individuals and firms who are directly and indirectly engaging in business where carbon emission takes place. To set off this carbon emission individuals and companies

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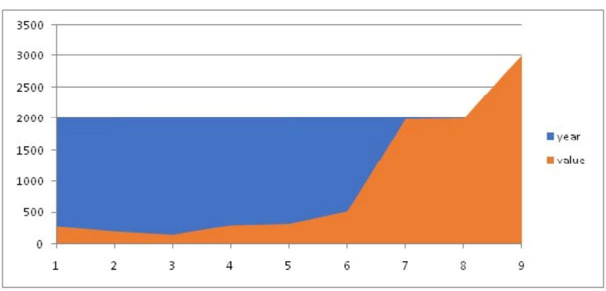
have to purchase these carbon credits and then the seller of these carbon credits will get a good amount of return at that period of time. This method is as simple as normal stock market where people purchase shares at a lower price and sell them when they are about to receive a higher amount based on the market condition.

There are some indirect ways to invest in the carbon market to obtain carbon credit. The price of one carbon credit is between $40 to $80 and to get one carbon credit one has to emit 1 tone of CO2 or CO2 equivalent. Companies and individuals can plan for some projects like wind energy, clean cook stoves, tree planting, geothermal, agro forestry, solar energy, biogas, run-river hydro etc to obtain carbon credit by emitting CO2 and its equivalent from environment and can get carbon credits. Companies and individuals can also invest in this kind of activity to gain monetary benefit by protecting the environment.

Growth of voluntary carbon market (from 2015 to 2021)

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023
Value(in millions)	$278	$199	$146	$296	$320	$520	$1985	$2000	$3000



This figure shows the value of voluntary carbon market from

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2015 to 2023. We can see that the value of voluntary carbon market is increasing in a positive way which can motivate the companies and individuals to invest in the carbon market which will lead to sustainable development.

Challenges For the functionality of Carbon Market

Firstly the main concern is about the effectiveness of carbon market in minimizing the carbon emission as most of the companies are simply buying the carbon credit as it is quite cheaper rather than making n effort to minimize the carbon emission as it will be requiring a huge investment to install such technologies for curbing emission. So, the only way to make the companies liable for reducing carbon emission is by charging carbon credit at a higher price which makes them accountable for a sustainable development.

Secondly as per environment experts it is said that only quality carbon offsets are useful in curbing carbon emission. But, in the carbon market low quality credits are available which are unable to suffice the criteria. And moreover some actions such as forestation actions to reduce carbon emission are temporary only for the sake of buying credit and after which again deforestation takes place.

There is a surplus of carbon credit especially in voluntary market as compared to compliance market which means the sellers are comparatively higher as compared to the buyers of credit. And if this remains the same then the price of carbon credit will decline as we all know that if supply is more than the demand than the emitters will continue for high emission as there won't be any monetary driving force to act accordingly for reduction of green house gas.

The rich countries are at position where they can easily buy credits at a cheaper rate from developing countries by

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neglecting the main objective of curbing emission.

There is a need of regulatory body in the carbon market as for trading of carbon credit and for the proper functioning there has to be an integrated institution which manages the trading activities and which will also allow for smooth functioning.

Conclusion

Protecting our environment is a primary duty for human beings which will make the life of both present and future generation easier. If a individual is gaining monetary benefit by protecting the environment then it can be considered as a holistic step because people consider motivation as a push factor for doing any task. So this carbon market can be considered as a good platform for investment which can help to protect the environment by giving monetary benefit to its stakeholders.

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ASSESSMENT OF THE FACTOR INFLUENCING CUSTOMER'S ADOPTION OF FINTECH APPLICATION IN KOHIMA

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ABSTRACT

The rapid advancements in technology have significantly transformed the financial landscape, with Fintech applications playing a crucial role in facilitating convenient and secure financial transactions. The Fintech company has been growing tremendously over the last decade, and many people has adopting on Fintech application for financial transaction. The aim of the study is to reveal on how customer has been impacting for influencing in adoption of Fintech application in financial transaction during COVID pandemic within Kohima areas, and to reveal about customer attitudes, trust and security concern provided by the Fintech company. The findings of the study revealed a significant level of customer influencing on adoption of Fintech applications in financial transactions. Where key factors contributing to the adoption included ease of use, convenience, time-saving, cost-effectiveness, and enhanced security measures. The majority of respondents reported positive experiences with Fintech applications, highlighting their satisfaction with the features and functionalities offered by the

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Fintech company. The Fintech company should also have to continuous monitoring and evaluation of customer experiences and evolving market trends will be essential to adapt and improve Fintech offerings to meet evolving customer needs and preferences.

Keywords: *Fintech, Customer's adoption, COVID*

Introduction

Fintech the term has been coined as a simple merger of "Financial" and "Technology." It refers to the innovative use of technology to deliver financial products and services in a more efficient, convenient, and user-friendly manner and also it is simply the use of technology to make finance better. Fintech has gained prominence in recent years due to its potential to transform and revolutionize the financial industry. It has opened up new avenues for financial services, challenging traditional players and offering consumers more choices and convenience. Fintech now describes a variety of financial activities, such as money transfers, depositing a check with your smartphone, bypassing a bank branch to apply for credit, raising money for a business startup, or managing your investments, generally without the assistance of a person.

According to the website of 'INVEST INDIA', India is among the fastest growing Fintech market in the world. India Fintech Industry market size is 50 billion in 2021 and is estimated at 150 billion by 2025. India digital lending market is expected to reach 350 billion by 2023. India is also the 2nd largest Insurtech Market in Asia-Pacific and is expected to grow by 15 times to reach 88.4 billion by 2030, India poised emerged as one of the fastest growing insurance markets in the world.

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This paper study the interplay on how people of Kohima were influencing and impact on adoption of Fintech application in financial transaction during Covid pandemic, and to review about the services awareness, trust, Ease of use. Also, the review of customer on how much they aware about fintech and satisfaction about the services offered by the fintech company.

Review of literature

Das and Das in their this study examined FinTech adoption during the COVID- 19 pandemic in Assam. It analyses the usage patterns of FinTech services among bank customers and identifies factors influencing adoption using the technology acceptance model (TAM). Haritha explored mobile payment service adoption and customers' perception of emerging financial technology in India. The results indicate a significant but small impact of perceived trust on adoption readiness and intention to use FinTech. The study highlighted the importance of ease of use, perceived usefulness, and facilitating service conditions, emphasizing the preference for compatible and user-friendly devices. Shaikh and Karjaluoto conducted a study on "Mobile banking adoption". The findings indicate that the m-banking adoption literature is fragmented. The study found that, compatibility (with lifestyle and device), perceived usefulness, and attitude are the most significant drivers of intentions to adopt m-banking services in developed and developing countries. Jonathan and Mishra in their study found that, mobile application downloads increase during Covid pandemic and newer players outperformed the big players of Fintech industry in terms of total downloads. Tun-Pin et. al. in their study found a positive consumer attitude towards technology. Paul and Michael in their book "The Age of Cryptocurrency: How Bitcoin and the Blockchain Are Challenging the Global Economic Order"

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elaborated the emergence of blockchain technology and its impact on the fintech industry. Fu and Mishra analysed on how it impacts of COVID-19 on digital finance and fintech adoption using mobile app data from 74 countries. Rani examined the recent developments and challenges in Financial Technology (Fintech), covering areas such as customer satisfaction, adoption, perception, behaviour patterns, security, and privacy.

Based upon the above review of literature, it was quite evident that, the popularity of Fintech applications is increasing with time. Therefore, a need was felt to assess the popularity of Fintech applications among the young population in Nagaland.

Objectives of the study

The objectives of the study are formulated as follows:

a) To identify the key factors influencing customer adoption of Fintech applications in Kohima, Nagaland.
b) To assess the customer satisfaction on using Fintech applications.
c) To examine the impact of Covid 19 on usages of Fintech applications.

Based upon the above objectives, the following hypothesis if formulated

H1 : The COVID pandemic has no significant impact on the increased user of Fintech Application.

Methodology

The methodology followed in the study is as follows:

Jurisdiction of the Study: The present study covers the young population of the age between 18 to 40 years in Kohima town.

Sample and Sample Unit: The study target population were adults whose age is over 18 and above within Kohima. The survey subjects were randomly selected customers who were using online banking, mobile banking, and other Fintech services

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of the bank who have the awareness about the services. So, there was a total of 146 responses were collected in this study.

Data collection

Primary data was collected using a structured questionnaire.

Development of questionnaire

To measure the Customer adoption intent, several variables were identified after reviewing the literatures. A total of 16 statements were formulated and are as follows:

Table 1: Questionnaire

Question No.	Items in the Questionnaire
1	The scurity concerns made by the fintech company was very satisfactory
2	I believe that adopting fintech applications enhance my control over financial transactions
3	I am confident in accuracy and reliability of fintech platforms in processing financial transactions
4	Fintech can work and available 24\7 without a problem
5	Technology understanding is a concern in Fintech
6	Fintech transaction is time saving process
7	Fintech transactions are cost effective
8	It is convenient to use Fintech services for transferring of money from one person to another
9	Fintech provides offers and Rewards
10	Majority of the people are using Fintech
11	Fintech services have reduced my dependency of holding physical currency
12	Fintech provides new products services
13	I am satisfied with the customer support provided by fintech companies in resolving any issue or concern.
14	COVID pandemic impacted to increases the user of Fintech technology
15	I am willing to continue using Fintech services for my future financial transaction.
16	Overall, I am satisfied with my experiences of using Fintech services for financial transaction

Source: Authors

The respondents of the questionnaire were given 5 options ranging from 1 to 5 where 1 represented strongly disagree and 5 represented strongly agree. Therefore, the

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quantitative score of each question was minimum 1 and maximum 5.

In the first step of analysis of data, it is very much necessary to find out whether the data for the study is reliable or not. In order to do that, the Cronbach alpha value of the data with the help of the SPSS software was calculated. Nunnaly has indicated 0.7 to be an acceptable reliability coefficient. The calculated value of the Cronbach Alpha value was found to be 0.753 which indicates that, the data collected for this study was reliable.

Data analysis results

The demographic profiles of the respondents are as follows:

Table 2: Demographic Variables Information of the Respondents (N = 146)

Demographic Variable		**Sample**	**Percentage**
Gender	Male	74	50.68
	Female	72	49.32
	Total	**146**	**100.0**
Age	18-25 years	98	67.12
	25-40 years	46	31.50
	Above 40 years	2	1.38
	Total	**146**	**100.0**
Educational Qualifications	Graduate	34	23.29
	Under Graduate	24	16.44
	Post Graduate	80	54.79
	Post Graduate and Above	8	19.87
	Total	**146**	**100.0**

Source: Authors

The respondents of the study are heterogeneous in terms of age, gender and educational qualifications.

Table 3: Fintech Service Usage

Services Usage	No. of respondent	Percentage
Daily	38	26.4%
Weekly	56	38.9%
Monthly	34	23.6%
Yearly	18	11.1%
TOTAL	**146**	**100%**

Source: Compiled from questionnaire

The table 3 shows that the customer of Fintech application was mostly used weekly with a 38.90%, followed by monthly users with 23.60%, daily users with 26.40% and yearly users with 11.10%.

Table 4: Adoption of Fintech

Adoption of Fintech	No. of respondent	Percentage
Before COVID-19 Pandemic	44	30.6%
After COVID-19 Pandemic	102	69.4%
TOTAL	**146**	**100%**

Source: Compiled from questionnaire

From the Table 4, it is observed that, there is a significant difference in adoption of fintech applications in Kohima.

Table 5: Popularity of Fintech applications

Payment App	No. of respondent	Percentage
Google-pay	118	80.8%
Phonepe	20	13.7%
Patym	4	2.75%
Other Services	4	2.75%
TOTAL	**73**	**100%**

Google pay (GPay) is the most popular fintech applications used by the young population of Kohima.

The Item Analysis of the Customer Experience measurement scale is presented below:

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Table 6: Item Analysis

Sl No.	Q No.	Mean Value	Remarks
1	1	3.55	Least Important Factors
2	12	3.15	
3	2	3.36	
4	4	3.38	
5	13	3.44	
6	5	3.45	Moderately Important factors
7	7	3.48	
8	9	3.48	
9	3	3.58	
10	11	3.63	
11	10	3.67	Highly Important Factors
12	14	3.79	
13	16	3.85	
14	15	3.9	
15	8	4.05	
16	6	4.1	

Source: Compiled from questionnaire

The item analysis results show that, for the young population of Kohima factor numbers 1, 12 and 2 are the least important factors which have an impact on the customer adoption intent. These factors are security concerns, new product services and control over financial transactions. Whereas factor number 15, 8 and 6 are most important factors that have an impact on the customer adoption. These factors are willingness to continuous usage of fintech applications, convenience in using fintech applications and timely and quick execution of transactions.

The customer adoption measurement scale used in this study was five-point scale for the identified 16 items as mentioned

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in the previous section. Therefore, the overall maximum score possible was 80 and the overall minimum score possible was 16. The score here signifies the overall level of Customer adoption intent. The overall Customer adoption intent level calculated, thus can be interpreted as follows:

Table 7: Interpretation of Overall Score of Customer Adoption intent

Interpretation of scale value	Very Low level of Customer adoption	Low Level of Customer adoption	Moderate Level of Customer adoption	High Level of Customer adoption	Very High Level of Customer adoption
Scale value for overall score	16-28.8	28.8-41.6	41.6-54.4	54.4-67.2	67.2-80

Source: Compiled from questionnaire

The mean value of the Customer adoption intent score was found to be 57.92, which fall under the category Moderate Level of Customer adoption. Therefore, it can be concluded from the above that, the young population of Kohima is slowly adopting the fintech applications in their day to day life.

For the testing of hypothesis Chi Square Test has been used. The calculation of the test statistics is mentioned below:

Chi-square = $\sum((O - E)^2 / E)$

The degrees of freedom (df) for a chi-square test are calculated as (Number of Categories -1). In this case, we have 5 categories, so df = 5 - 1 = 4.

Table 8: Chi-Square calculations

Observed Value(O)	**Expected Value(E)**	**(O-E)**	**(O-E) ^2**	**(O-E) ^\E**
5	**14.6**	**-9.6**	**92.16**	**6.31**
5	**14.6**	**-9.6**	**92.16**	**6.31**
11	**14.6**	**-3.6**	**12.96**	**0.89**
27	**14.6**	**12.4**	**153.76**	**10.53**
25	**14.6**	**10.4**	**108.16**	**7.40**
			(X^2)	**=31.44**

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To determine whether to accept or reject the null hypothesis based on the chi-square test, we compare the calculated chi-square value to the critical value. In this case, the calculated chi- square value is 31.44, and the critical value for a significance level of 0.05 (5%) and 4 degrees of freedom is 9.488. Since the calculated chi-square value (31.44) is greater than the critical value (9.488), we can reject the null hypothesis (H0) at the 0.05 significance level and accept the Alternative hypothesis (H1).

Hence, based on the calculation of chi-square test, we can conclude that the COVID pandemic has significant impact on the increased user of Fintech Application.

Discussions and conclusions

Majority of the respondent are from at the age group of 18-25, which means the young teenager's stage user are more than the other stage. From the study found that, there is no Gender bias in using Fintech Services, as Male and Female users were equal in number. The users use the fintech services on a regular basis. It was found that there was huge impact in increasing in adoption into Fintech application after the Covid-Pandemic. The customers were using most of the payment app, but as per response, they prefer more on Google pay app as compared to other payment app. The respondent s were assuming that the Fintech transaction are time saving process. The majority of the customer response were "Neutral" for the customer support provided by the Fintech companies in resolving any issue or concern, which the users are not satisfied with the service offered by the Fintech Company. Majority of the respondent believe that Fintech Services have reduce the dependency of holding physical currency. Majority of the respondent are strongly agreed that, it is convenient to use

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Fintech Services of Transferring money from one person to another. The majority respondents are willing to continue using Fintech Services for their future financial transaction, overall, the respondent was satisfied with their experiences of using Fintech Application.

This study has revealed that the factor influencing on adoption of Fintech Application on financial transaction in Kohima has seen a huge impact on increasing in adoption of Fintech services. where a majority of respondents indicating that they regularly use Fintech applications for various financial activities such as payments, transfers, this demonstrates a positive trend towards the integration of technology in the financial sector.

This study has also revealed that using a Fintech Application like G-pay, phone pe and other UPI transaction activity will be a time saving process and also it has a convenient for transferring of money from one person to another. The Fintech application users believes that Fintech services will enhance reduce their dependency of holding physical currency. The trust of security concern provide by the Fintech company to the users are not fully satisfied with their problem-solving issues. Where Fintech service provider should also be more focus on solving customer issues and concern, as majority of the respondent from this study are not satisfied with their service for solving their issue. The application or website should be appealing and easy to use as well and companies should give awareness towards fintech and change the attitude to fintech in positive outlook try knowledge so that they can try to grab the attention of maximum customers.

Overall, the study finds out that the users are convenience and a ease of use for the Fintech services and also willing to

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continue for using Fintech service for their Financial transaction in the future.

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A STUDY ON INVESTMENT OPPORTUNITIES AND ECONOMIC DEVELOPMENT IN INDIA

✍Dipankar Saikia

ABSTRACT

India's economic landscape has undergone significant transformation, marked by liberalization and reforms that have attracted both domestic and international investments. This paper explores the myriad investment opportunities in India, focusing on key sectors such as information technology, manufacturing, infrastructure, renewable energy, and agriculture. It examines government initiatives like Make in India, Startup India, Digital India, and Skill India that aim to bolster economic growth. Despite the promising prospects, challenges such as infrastructure bottlenecks, regulatory hurdles, socioeconomic issues, and political stability persist. The paper concludes by proposing strategies to enhance investment and promote sustainable and inclusive economic development in India.

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Introduction

The Indian economy has consistently experienced rapid growth and has emerged as a desirable location for investment. India is currently only second to China in terms of preferred investment locations, according to recent trends. Due to India's economy's rapid growth, more opportunities for business startups have emerged. India has recently emerged as a significant FDI worldwide hub. India was one of the top three international destinations for FDI, and nearly 80% of the global respondents planned to make investments there. Additionally, India has recently lowered company taxes dramatically and streamlined its labour rules. The nation has also loosened its FDI limitations, which have gone from 0.42 to 0.21 over the past 16 years. In terms of both short- and long-term possibilities, India has continued to be a desirable market for foreign investment. One of the FDI sectors with the most promise is low-skill manufacturing in India. India has also improved its government's effectiveness

Literature Review

Research on the impact of Foreign Direct Investment (FDI) on India's economic growth underscores its pivotal role in boosting GDP, industrial development, and technological advancements, with sectors like telecommunications and IT benefiting significantly from FDI inflows (Agrawal & Khan, 2011). The liberalization policies of the 1990s, which eased FDI regulations, have been instrumental in transforming India into an attractive destination for foreign investors. Government policies and economic reforms, such as the removal of industrial licensing, market deregulation, and the introduction of the Goods and Services Tax (GST), have also significantly influenced India's investment climate (Chakraborty & Nunnenkamp, 2008). The

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GST, in particular, has streamlined indirect taxation, reduced business costs, and improved compliance, thereby fostering a more conducive environment for investment. The Digital India initiative has further enhanced economic development by promoting digital infrastructure and literacy, leading to the growth of digital services, including e-commerce and digital payments, which are projected to reach $1 trillion by 2023 (Bhardwaj, 2020). Additionally, the Make in India initiative, aimed at boosting manufacturing, has attracted substantial FDI in sectors like electronics and automobiles, contributing to job creation and economic diversification (Singh & Kaur, 2018). Lastly, the focus on renewable energy, with ambitious targets like achieving 450 GW of renewable energy capacity by 2030, has attracted significant investments in solar and wind energy projects, positioning India as a leader in green energy (Sharma & Jain, 2019).

Objective

a. To Analyze the Major Sectors Attracting Investments in India.
b. To Examine the Impact of Government Policies and Economic Reforms on Investment Climate and Economic Development

Methodology

This research is based on secondary data collected from government reports, publications of financial institutions, and academic journals. The analysis includes trends in FDI, domestic investments, sector-specific opportunities, government policies,

Drivers of Economic Development

India's rapid economic development can be attributed to several key drivers. These include the demographic dividend,

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significant government initiatives, digital transformation, and urbanization. Each of these factors plays a crucial role in shaping the economic landscape and attracting investments.

A. Demographic Dividend

India's demographic dividend is one of its most valuable assets. The country has a young population, with over 65% of its people under the age of 35. This demographic advantage is expected to continue for the next few decades, providing a sustained supply of labor and a growing consumer base.

Growing Workforce: India's working-age population (15-64 years) is projected to reach nearly 1 billion by 2030. This young and dynamic workforce can significantly boost productivity and economic output. According to the World Bank, India's labor force participation rate was about 50% in 2020, but this is expected to rise as more young people enter the workforce.

Consumer Base: A young population also translates into a burgeoning middle class. The National Council of Applied Economic Research (NCAER) estimates that the middle class will grow from 78 million households in 2018 to 113 million by 2025. This growth will increase demand for goods and services, driving consumption-led economic growth.

The demographic dividend offers a dual advantage: a large workforce to drive production and a significant consumer base to spur demand. However, to fully capitalize on this, India needs to focus on skill development and education to ensure that the workforce is adequately trained to meet industry requirements.

B. Government Initiatives.

The Indian government has launched several initiatives aimed at stimulating economic growth, attracting investment, and promoting sustainable development. These initiatives are designed to create a favourable business environment, encourage

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manufacturing, and make India self-reliant in key sectors.

Atmanirbhar Bharat (Self-Reliant India): Launched in May 2020, this initiative aims to reduce dependency on imports and boost domestic production. The government allocated approximately $265 billion, which is about 10% of the country's GDP, to support this initiative. It focuses on sectors such as agriculture, MSMEs (Micro, Small, and Medium Enterprises), defense, and manufacturing. Key measures include:

Production Linked Incentive (PLI) Scheme: This scheme offers incentives to boost production in sectors like electronics, pharmaceuticals, and textiles. For instance, the PLI scheme for electronics manufacturing is expected to generate $153 billion in production over the next five years.

Boosting MSMEs: The government announced collateral-free loans worth $40 billion to support MSMEs, which are the backbone of the Indian economy, contributing around 30% to GDP and employing over 110 million people.

Make in India: Launched in September 2014, this initiative aims to transform India into a global manufacturing hub. The goal is to increase the manufacturing sector's contribution to GDP from 16% to 25% by 2025. The initiative has attracted FDI worth $77 billion between 2014 and 2020. Key focus sectors include:

Automobiles: India is the world's fourth-largest automobile market. The government aims to create a manufacturing ecosystem for electric vehicles (EVs) and has introduced policies to support EV adoption.

Electronics: The goal is to achieve $400 billion in electronics manufacturing by 2025. Major companies like Samsung, Apple, and Xiaomi have established production units in India, creating jobs and boosting exports.

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These initiatives are complemented by structural reforms in taxation, labor laws, and ease of doing business, further enhancing India's attractiveness as an investment destination.

C. Digital Transformation

The Digital India program, launched in July 2015, aims to transform India into a digitally empowered society and knowledge economy. Digital transformation is a critical driver of economic growth, empowering businesses, fostering innovation, and improving governance.

Internet Penetration: The number of internet users in India increased from 560 million in 2018 to over 825 million in 2021. The program has enhanced digital infrastructure, increased digital literacy, and provided government services online. This has led to the growth of various digital services, including e-commerce, digital payments, and online education.

E-commerce: The e-commerce market in India is expected to grow from $38.5 billion in 2017 to $200 billion by 2026. Companies like Amazon and Flipkart are making substantial investments in expanding their operations, driven by increasing internet penetration and changing consumer preferences.

Digital Payments: The digital payments market is projected to reach $1 trillion by 2023, supported by initiatives like UPI (Unified Payments Interface) and BHIM (Bharat Interface for Money).

Startup Ecosystem: India has become one of the world's largest startup ecosystems, with over 50,000 startups as of 2021. Digital and technology startups are attracting significant investment, driven by innovation and entrepreneurial spirit. The government's Startup India initiative provides funding, mentorship, and incubation support to startups, fostering a culture of innovation.

Digital transformation has a multiplier effect on the economy,

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driving efficiency, reducing costs, and opening up new avenues for growth and development. The integration of digital technologies across sectors such as agriculture, healthcare, and education can further enhance productivity and inclusivity.

D. Urbanization

India is experiencing rapid urbanization, with the urban population expected to reach 600 million by 2031, up from 377 million in 2011. This trend is transforming the economic landscape and creating significant opportunities for investment in infrastructure, real estate, and consumer goods.

Infrastructure Development: Urbanization drives the need for robust infrastructure, including transportation, housing, and public utilities. The Smart Cities Mission, launched in 2015, aims to develop 100 smart cities with modern infrastructure and efficient urban services. The mission has an outlay of $30 billion and focuses on areas such as sustainable urban planning, efficient energy management, and advanced transportation systems.

Transportation: Significant investments are being made in urban transportation projects, such as metro rail systems in major cities like Delhi, Mumbai, Bangalore, and Hyderabad. The government plans to invest $134 billion in railways and $255 billion in road infrastructure as part of the National Infrastructure Pipeline (NIP).

Housing: The Pradhan Mantri Awas Yojana (PMAY) aims to provide affordable housing to all by 2022. The scheme targets the construction of 20 million affordable houses in urban areas, attracting investment in real estate and construction.

Consumer Goods: Urbanization leads to increased demand for consumer goods, driven by rising disposable incomes and changing lifestyles. The Fast-Moving Consumer Goods (FMCG) sector, valued at $110 billion in 2020, is expected to reach $220

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billion by 2025. Companies are expanding their product portfolios and distribution networks to cater to urban consumers' diverse needs.

2. Investment Climate in India

Regulatory Environment India has made significant strides in improving its regulatory environment to attract investment. Reforms such as the introduction of the Goods and Services Tax (GST), the Insolvency and Bankruptcy Code (IBC), and the liberalization of FDI policies have enhanced the ease of doing business. The government's efforts to streamline bureaucratic processes and enhance transparency have also played a crucial role.

Foreign Direct Investment (FDI) India has emerged as a top destination for FDI, with inflows reaching record levels in recent years. Sectors like information technology, telecommunications, and pharmaceuticals have been major attractors of FDI. Countries such as the United States, Singapore, and Japan are prominent investors. The liberalized FDI policy regime, which allows 100% FDI in most sectors under the automatic route, has been instrumental in this growth.

Domestic Investment The domestic private sector has been a key player in India's economic development. Indian conglomerates and emerging startups have invested heavily in sectors such as manufacturing, infrastructure, and technology. Public sector investments in infrastructure, energy, and social sectors have also been significant, contributing to the overall investment climate.

Investment Opportunities

India offers a diverse range of investment opportunities across various sectors, each contributing significantly to the country's economic growth. This section explores these

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opportunities in detail, highlighting key areas such as infrastructure, manufacturing, renewable energy, financial services, and consumer goods and retail.

A. Infrastructure

Infrastructure development is a critical driver of economic growth, providing the foundation for enhanced productivity, connectivity, and quality of life. India's infrastructure sector presents vast investment opportunities, supported by ambitious government initiatives.

National Infrastructure Pipeline (NIP): Launched in 2019, the NIP aims to invest $1.4 trillion in infrastructure projects by 2025. This initiative covers various sectors, including transportation, energy, water, and sanitation.

Transportation: Significant investments are planned for roads ($255 billion) and railways ($134 billion). Projects include the development of expressways, highways, and the modernization of railway networks. The Bharatmala Pariyojana, a road and highway development program, aims to construct 34,800 kilometers of roads.

Urban Infrastructure: The Smart Cities Mission aims to develop 100 smart cities with an outlay of $30 billion. These cities will feature modern infrastructure, efficient urban services, and sustainable urban planning. Investments in metro rail systems in cities like Delhi, Mumbai, Bangalore, and Hyderabad are also prominent, enhancing urban mobility.

Public-Private Partnerships (PPP): PPP models are crucial for infrastructure development, enabling the private sector to participate in public projects and share risks and rewards. Successful PPP projects include the Delhi Metro and the Mumbai-Pune Expressway, showcasing the potential for collaboration in infrastructure development.

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B. Manufacturing

The manufacturing sector is a cornerstone of India's economic strategy, offering significant investment opportunities through various government initiatives aimed at boosting domestic production and exports.

Make in India: Launched in 2014, this initiative aims to transform India into a global manufacturing hub. The goal is to increase the manufacturing sector's contribution to GDP from 16% to 25% by 2025. The initiative focuses on attracting foreign direct investment (FDI) and encouraging domestic companies to innovate and invest in manufacturing.

Electronics: India aims to achieve $400 billion in electronics manufacturing by 2025. Major global companies like Samsung, Apple, and Xiaomi have established production units in India, driven by incentives under the Production Linked Incentive (PLI) scheme. The PLI scheme for large-scale electronics manufacturing offers financial incentives based on incremental sales.

Automobiles: The Indian automotive industry, valued at $118 billion, is the fourth-largest in the world and contributes 7.1% to the GDP. The sector is expected to attract $8-10 billion in local and foreign investments over the next few years. The government's push for electric vehicles (EVs) and the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) scheme provide additional opportunities for investment.

C. Renewable Energy

India is committed to transitioning to clean energy, presenting significant investment opportunities in the renewable energy sector. The country's ambitious targets and favourable policies make it an attractive destination for renewable energy investments.

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Solar Energy: India has a current solar capacity of 40 GW, with plans to increase it to 100 GW by 2022. Investments in solar energy projects amounted to $8.4 billion in 2020. Major projects include the Kurnool Ultra Mega Solar Park and the Bhadla Solar Park, among the largest solar parks in the world.

Wind Energy: India's installed wind power capacity is around 38 GW, making it one of the largest wind energy markets globally. The sector has attracted significant investments, with $5.4 billion in new projects in 2020. Key projects include the Muppandal Wind Farm in Tamil Nadu and the Jaisalmer Wind Park in Rajasthan.

Renewable Energy Target: India aims to achieve 450 GW of renewable energy capacity by 2030. This includes significant contributions from solar, wind, and hydro power. The government's policy support, such as tax incentives and favorable tariffs, encourages investment in this sector.

D. Financial Services

The financial services sector in India offers vast investment potential, driven by increasing financial inclusion, digitalization, and a growing economy.

Banking: The Indian banking sector is expected to become the fifth-largest in the world by 2025. The sector attracted FDI worth $2.5 billion in 2020. Key opportunities include investments in both public and private banks, driven by the need for financial inclusion and modernization. The government's push for digital banking and financial literacy initiatives further enhance this sector's attractiveness.

Microfinance and Insurance: The microfinance sector, valued at $30 billion, offers significant growth opportunities, especially in rural and semi-urban areas. The insurance market, worth $280 billion, is also expanding, driven by increasing awareness and

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the need for financial protection. The government's initiatives like Pradhan Mantri Jan Dhan Yojana (PMJDY) and Pradhan Mantri Fasal Bima Yojana (PMFBY) support the growth of microfinance and insurance sectors.

E. Consumer Goods and Retail

The rising demand for consumer goods, coupled with the growth of organized retail and e-commerce, presents significant investment opportunities in India.

E-commerce: The e-commerce market in India is expected to grow from $38.5 billion in 2017 to $200 billion by 2026. Major investments by companies like Amazon and Flipkart are driving this growth. The sector benefits from increasing internet penetration, a growing middle class, and changing consumer preferences towards online shopping.

Product Manufacturing: The Fast-Moving Consumer Goods (FMCG) sector, valued at $110 billion in 2020, is expected to reach $220 billion by 2025. Opportunities in product manufacturing cater to the growing domestic market and export potential. Investments in this sector are driven by the rising disposable incomes and urbanization trends.

Challenges and Solutions

Despite the lucrative investment landscape, several challenges need to be addressed to optimize investment outcomes in India. This section elaborates on the key challenges and proposes viable solutions to mitigate these issues and create a more conducive environment for investors.

A. Skilling Gap

Challenge:

Skill Mismatch: There is a significant mismatch between the

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skills possessed by the workforce and the skills required by industries. Many graduates lack the practical skills needed for employment in sectors such as IT, manufacturing, and services. Quality of Education: The quality of education, particularly in rural areas, often does not meet industry standards, leading to a workforce that is underprepared for modern job requirements.

Solutions:

Government-Industry Partnerships: Collaborations between the government and industry can help design and implement skill development programs tailored to market needs. For example, the National Skill Development Corporation (NSDC) has partnered with various industries to provide training aligned with job market demands.

Vocational Training: Expanding vocational training institutes and integrating vocational courses into the mainstream education system can equip the workforce with industry-relevant skills. Programs like Pradhan Mantri Kaushal Vikas Yojana (PMKVY) aim to train over 10 million youth with industry-relevant skills. Corporate Training Initiatives: Encouraging companies to invest in employee training and development can bridge the skill gap. For instance, Infosys and Tata Consultancy Services (TCS) have in-house training programs to upskill their employees.

B. Bureaucracy

Challenge:

Regulatory Complexity: Complex regulations and procedural delays can deter investors. Multiple approvals and clearances required from different government departments can slow down the investment process.

Lack of Transparency: Bureaucratic processes often lack

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transparency, leading to inefficiencies and potential corruption.

Solutions:

Streamlining Regulations: Simplifying regulatory procedures and reducing the number of approvals required can make it easier for businesses to operate. The introduction of single-window clearance systems, like the Make in India initiative's online single-window portal, can streamline processes.

Digitalization: Implementing digital platforms to handle approvals and clearances can reduce bureaucratic delays and enhance transparency. The Goods and Services Tax (GST) portal is an example of how digitalization can simplify tax compliance and improve efficiency.

Policy Reforms: Continuous policy reforms aimed at improving the ease of doing business can create a more investor-friendly environment. India's rank in the World Bank's Ease of Doing Business index improved from 142nd in 2014 to 63rd in 2020, reflecting efforts to simplify business regulations.

C. Infrastructure Bottlenecks

Challenge:

Insufficient Infrastructure: Despite significant investments, India's infrastructure, particularly in rural areas, still lags behind. Issues such as inadequate transportation networks, unreliable power supply, and poor logistics can hinder economic activities.

Urban Congestion: Rapid urbanization has led to congestion in cities, putting pressure on urban infrastructure and affecting the quality of life.

Solutions:

Enhanced PPP Models: Encouraging more public-private partnership (PPP) projects can leverage private sector expertise

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and funding to overcome infrastructure bottlenecks. Successful PPP projects, such as the Delhi Metro, demonstrate the potential of such collaborations.

Focus on Rural Infrastructure: Investing in rural infrastructure, including roads, electricity, and internet connectivity, can ensure balanced regional development. Initiatives like the Pradhan Mantri Gram Sadak Yojana (PMGSY) aim to improve rural road connectivity.

Smart City Initiatives: The Smart Cities Mission focuses on developing urban infrastructure with an emphasis on sustainability and efficiency. Investments in smart city projects can address urban congestion and improve the quality of urban living.

D. Macroeconomic Stability

Challenge:

Inflation: High inflation rates can erode purchasing power and deter investment. Controlling inflation is essential to maintain economic stability.

Fiscal Deficit: A high fiscal deficit can limit the government's ability to invest in critical sectors and maintain economic stability.

Solutions:

Sound Fiscal Policies: Implementing prudent fiscal policies to control public debt and maintain fiscal discipline is crucial. The Fiscal Responsibility and Budget Management (FRBM) Act aims to reduce India's fiscal deficit and ensure long-term economic stability.

Monetary Policy: The Reserve Bank of India (RBI) uses monetary policy tools to control inflation and stabilize the economy. Measures such as adjusting interest rates and

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regulating money supply can help maintain macroeconomic stability.

Economic Reforms: Continued economic reforms to enhance market efficiency and investor confidence are essential. Structural reforms in sectors like agriculture, labour, and banking can drive sustainable economic growth.

Conclusion

India's economic growth and investment potential are driven by its demographic dividend, government initiatives, digital transformation, and urbanization. The country offers diverse investment opportunities across key sectors, contributing to its economic development. However, addressing challenges such as the skilling gap, bureaucracy, infrastructure bottlenecks, and maintaining macroeconomic stability is crucial for sustaining growth. By fostering a conducive investment climate and implementing forward-looking policies, India can continue to attract investments and achieve long-term economic development.

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GREEN INVESTMENT IN INDIA : A WAY FORWARD

✍Dr. Kasturi Gogoi

ABSTRACT

India is one of the world's most climate-vulnerable nations. As a way towards a sustainable environment as well as a sustainable economy, green investment has come up as a new source of investment in India. In the recent years, considerable progress has been made in the promotion of green energy in India. India has shown its dedication to sustainable development by gradually severing the link between economic expansion and greenhouse gas emissions. Thus this paper is an attempt to understand this emerging investment trend in green energy in India and what kind of policies are coming up as a result.

Keywords: *Environment, Sustainable, Green Energy, Investment, India*

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Introduction

A fundamental aspect of India's cultural ethos is sustainability as a way of life. With a goal of reaching the $10 trillion mark by 2035, India is a responsible global partner that is committed to building an inclusive and sustainable future. As India's energy consumption has increased dramatically in recent years due to both population growth and the country's strong economic growth, India has set aggressive goals to promote investment in green energy. With an objective to promote economic development, augment energy security, ease energy accessibility, and alleviate the consequences of climate change; investing in green energy has become a sustainable development goal for India in the recent years. India has raised the proportion of renewable energy in its energy mix, with the aim of reaching 450 GW of renewable energy capacity by 2030, in order to meet this demand and strike a balance between the sustainability and profitability pillars. India's capacity for producing renewable energy climbed by 250 percent between 2014 and 2021, and between April 2000 and June 2022, foreign direct investment (FDI) of US$12.57 billion entered the non-conventional energy sector. As green energy has grown, so too have the investment prospects for companies and investors who want to capitalize on India's expanding need for green energy solutions.

India has a strategic edge in producing solar energy due to its geographical location around the equator, where some regions of the country receive over 300 days of sunshine annually. This benefit includes wind energy projects, as India's 8,000 kilometers of coastline come into play. Furthermore, it is projected that India has a tremendous hydropower potential of about 100,000 MW. India now has a rare chance to set the standard for the generation of renewable energy and develop a

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green economy thanks to these natural resources. India saw a record-high investment in green energy in the year 2022, with a whopping $14.5 billion invested, representing a tremendous rise of 125% from the previous year, according to a recent research by the Institute for Energy Economics and Financial Analysis. The nation is expected to draw a huge amount of investment related to renewable and green energy in the coming years.

Objectives

The primary objective of this paper is to make an attempt to understand the concept of green investment. In addition, this paper attempts to know about the green investment plans in India and the future goals.

Methodology

This paper is purely based on secondary sources of data. These data are derived from relevant research conducted in this topic, books, articles, newspapers, official documents, and project works. Therefore it is purely descriptive in nature as this paper attempts to describe the concept of green investment.

Discussion

This section is divided into three parts that altogether describes the concept of green investment and its significance, green investment policies in India, and the future trends.

Concept of Green Investment

Green investment refers to the practice of investing in companies, projects, or funds that are committed to environmental sustainability and reducing their carbon footprint. It involves allocating capital to businesses and initiatives that promote renewable energy, energy efficiency, sustainable agriculture, clean technologies, and other environmentally friendly practices. Investors interested in green investments typically seek financial returns while also supporting businesses

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that contribute positively to environmental conservation and climate change mitigation. Green investment includes investing in renewable energy such as solar, wind, hydroelectric, etc; investing in technologies that reduce pollution, waste, and greenhouse gas emissions; investing in projects that offset carbon emissions, such as reforestation or renewable energy projects; bonds issued to finance environmentally friendly projects, often by governments, municipalities, or corporations; funding initiatives aimed at improving energy efficiency in buildings, transportation, and industrial processes etc. As the global shift towards sustainability accelerates, it can offer opportunities for diversification and potentially attractive returns. However, like any investment, green investments also carry risks, including regulatory changes, technological developments, and market volatility. In general, green investment refers to the process of choosing investments with an eye on their environment. It is also known as eco-investment, ecologically friendly investing, environmentally conscious investing, or environmental investing. Thus, it can be stated that green investment is environment friendly investment. It emphasizes how investments affect the environment. These investments are conventional financial instruments that meet specific environmental standards. They follow eco-friendly procedures in addition to innovative technology that will aid in the global shift towards net zero.

Green Investment Policies in India: Need of the Policies and Implementations

Green investment holds significant importance in India due to several reasons:

1. Environmental Sustainability: India faces numerous environmental challenges, including air and water pollution, deforestation, and climate change impacts such

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as extreme weather events. Green investments support initiatives that mitigate these challenges by promoting cleaner technologies, renewable energy sources, and sustainable practices.

2. Energy Security: India's energy demand is rising rapidly as its economy grows. Investing in renewable energy sources such as solar, wind, and hydroelectric power enhances energy security by diversifying the energy mix away from fossil fuels, which reduces dependence on imported oil and gas.
3. Climate Change Mitigation: India is one of the world's largest emitters of greenhouse gases. Green investments play a crucial role in reducing carbon emissions through renewable energy projects, energy efficiency improvements, and sustainable infrastructure development, thus contributing to global efforts to mitigate climate change.
4. Job Creation and Economic Growth: Green investments stimulate economic growth by creating new industries and jobs in sectors such as renewable energy, clean technology manufacturing, and environmental services. This helps in achieving inclusive and sustainable development goals.
5. Public Health Benefits: Reducing air and water pollution through green investments improves public health outcomes by reducing respiratory illnesses and other health problems associated with pollution.
6. Policy Support: The Indian government has implemented various policies and initiatives to promote green investments, including incentives for renewable energy projects, tax breaks, and subsidies. These policies create

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a favorable investment climate for businesses and investors interested in sustainability.

7. International Commitments: India has committed to international agreements such as the Paris Agreement, which requires countries to reduce their greenhouse gas emissions. Green investments are crucial for India to meet its climate targets and fulfill its international obligations.

Overall, green investments in India are essential for achieving sustainable development, improving environmental quality, enhancing energy security, and fulfilling international climate commitments. They play a vital role in transitioning India towards a low-carbon, resilient, and inclusive economy.

India has implemented several policies and initiatives to promote green investment across various sectors. Some key policies include:

1. **National Action Plan on Climate Change (NAPCC):** NAPCC outlines India's strategy to combat climate change through eight national missions, including initiatives on solar energy, energy efficiency, sustainable agriculture, and water conservation.
2. **National Solar Mission (NSM):** Launched in 2010, NSM aims to promote the development and deployment of solar energy in India. It includes targets for solar power generation capacity expansion, financial incentives such as subsidies and tax benefits, and mechanisms like Renewable Purchase Obligations (RPOs) to increase solar energy uptake.
3. **National Mission for Enhanced Energy Efficiency (NMEEE):** NMEEE aims to promote energy efficiency measures across various sectors through initiatives like the

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Perform, Achieve, and Trade (PAT) scheme for energy-intensive industries, standards and labeling programs, and incentives for energy-efficient appliances and equipment.

4. **FAME India Scheme (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles):** FAME India promotes the adoption of electric and hybrid vehicles in the country through financial incentives for vehicle buyers, subsidies for manufacturers, and establishment of charging infrastructure.
5. **Pradhan Mantri Ujjwala Yojana (PMUY):** PMUY aims to provide clean cooking fuel (LPG) to households below the poverty line, thereby reducing indoor air pollution and promoting cleaner cooking practices.
6. **Green Building Certification Programs:** Initiatives like the Green Rating for Integrated Habitat Assessment (GRIHA) and Leadership in Energy and Environmental Design (LEED) India promote green building practices by providing certifications based on energy efficiency, water conservation, and sustainable materials usage.
7. **Smart Cities Mission:** The Smart Cities Mission encourages the development of sustainable and livable urban spaces through investments in infrastructure, transportation, energy efficiency, and waste management.
8. **Clean India Mission (Swachh Bharat Mission):** This mission aims to achieve universal sanitation coverage and promote sustainable sanitation practices across India, including initiatives for solid waste

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management and wastewater treatment.

9. **National Biofuel Policy:**
India's biofuel policy aims to promote the production and use of biofuels to reduce dependence on fossil fuels, enhance energy security, and mitigate greenhouse gas emissions.

10. **Green Bonds and Financing:**
India has introduced guidelines and incentives to encourage the issuance of green bonds by companies and financial institutions. Green bonds finance projects with environmental benefits, such as renewable energy projects and energy efficiency initiatives.

These policies and initiatives demonstrate India's commitment to promoting green investment, fostering sustainable development, and addressing environmental challenges while supporting economic growth and energy security.

Future Trends in Green Investment in India

Looking ahead, several future trends are expected to shape green investment in India:

1. Renewable Energy Expansion: India aims to significantly increase its renewable energy capacity, particularly in solar and wind power. Future investments will focus on scaling up renewable energy projects to meet growing electricity demand sustainably.

2. Energy Storage Solutions: As renewable energy sources like solar and wind are intermittent, there is a growing need for energy storage solutions such as batteries. Investments in energy storage technologies will facilitate the integration of renewable energy into the grid more effectively.

3. Electric Mobility: With increasing urbanization and concerns

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over air pollution, investments in electric vehicles (EVs) and associated infrastructure (charging stations, battery manufacturing) are expected to rise. This supports India's goal of reducing fossil fuel dependence in the transportation sector.

4. Green Buildings: Investments in energy-efficient and environmentally friendly buildings are likely to grow. Green building certifications (e.g., LEED, GRIHA) are gaining popularity, driving demand for sustainable construction practices and materials.

5. Water Management: India faces significant challenges in water scarcity and pollution. Investments in water conservation, wastewater treatment technologies, and sustainable water management practices will become increasingly important.

6. Circular Economy Initiatives: Promoting a circular economy involves reducing waste generation, reusing materials, and recycling resources. Investments in waste management, recycling infrastructure, and sustainable manufacturing practices will support this transition.

7. Green Bonds and Financing: The issuance of green bonds by Indian companies and financial institutions is expected to increase. These bonds finance projects with environmental benefits, attracting both domestic and international investors interested in sustainable finance.

8. Policy and Regulatory Support: Continued government policies and incentives supporting green investments will be crucial. These include subsidies, tax incentives, and regulatory frameworks that encourage renewable energy deployment, energy efficiency improvements, and sustainable practices across sectors.

9. Corporate Sustainability Initiatives: Indian businesses are increasingly adopting corporate sustainability practices to

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enhance their environmental credentials and meet stakeholder expectations. Investments in sustainable supply chains, resource efficiency, and green technologies will grow as a result.

10. International Collaboration: Collaboration with international organizations, investors, and technology providers will facilitate knowledge exchange, funding opportunities, and capacity building in green sectors.

Overall, green investment trends in India are driven by the dual imperatives of economic growth and environmental sustainability. As India continues its development trajectory, green investments will play a crucial role in building a resilient, low-carbon economy that addresses both local environmental challenges and global climate goals.

Conclusion

India has set ambitious targets to reduce greenhouse gas emissions and boost the capacity of green energy, demonstrating its commitment to sustainable development. With so many natural resources at its disposal, including the potential for solar, wind, and hydropower energy, India has a special chance to set the standard for renewable energy generation and develop a green economy. India's policies and actions show the country's steadfast commitment to decarbonization and green energy encouragement. The need for green energy solutions in India is booming, as evidenced by the recent spike in renewable energy investment, which increased by an astounding 125% from the previous year. India's ultimate goal is to become energy independent by 2047 through clean technologies, with a focus on sustainability and inclusivity.

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THE ETHICAL STANDARDS IN INVESTMENT DECISION-MAKING

✍Kriti Phukan

ABSTRACT

The ethical standards in investment decision-making are crucial for maintaining trust and integrity in the investment industry. Investment professionals must have a well-developed set of ethical principles to guide their decision-making and conduct. The study focuses on the ethical guidelines that investors and financial professionals should follow, highlighting the significance of these guidelines in preserving market stability and safeguarding stakeholder interests. By adhering to ethical standards, investors can contribute to the development of a more transparent, equitable, and sustainable financial system. This abstract emphasises the impact of ethical standards in fostering trust and stability in investment markets, thus, benefiting the individual investors, financial institutions, and society at large.

Keywords: *Ethics, Ethical Standards, Investment Decision-Making*

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Introduction

In recent years, the financial landscape has undergone significant transformation, driven by a growing awareness of the profound impact that investment decisions can have on society and the environment. As we embark on the new millennium, the investment landscape has undergone a profound transformation, offering a myriad of opportunities for savvy investors to capitalize on emerging trends and innovations. The term 'Ethics' carries a huge sum of responsibility and a crucial structure which could affects all the factors of an available situation. It is a sole entity that could stir an occurrence in any favourable or non- favourable way which also holds an adverse effect in general (Chaubey, Dev and Patra, 2016). The practice of ethical investing is gaining popularity within financial markets as investors support businesses that align with their ethical principles (Hofmann and Kirchler, 2007). The increasing emphasis on sustainable and socially responsible investing has led to the emergence of green investment options, providing investors with the opportunity to align their financial objectives with their ethical and environmental values. However, the question here indicates how do investors make moral investment decisions ? This study clarifies the ethical principles and practices while making an investment decision.

Incorporating Ethical Considerations into Investment Decision Making

Identify and Prioritize Ethical Values

Ethical investment or socially responsible investment is defined as the integration of personal values, social considerations and economic factors considering the principles of corporate governance, human rights, social responsibility,

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sustainability of the environment, and product accountability in investment decision making process. Hence, these principles (Grant Michelson) must be based on the opinions of stakeholders considering the risk-return analysis, regulatory compliance and impact assessment, to ensure that investments comply with the moral values, implementing an ethical investment policy, rigorous screening, due diligence, and ongoing monitoring and reporting.

Gather relevant information

A comprehensive study of the market trends, financial performance measures, and regulatory environments is important to obtain pertinent information while making investments decision. Moreover, it is imperative to evaluate economic statistics, ensured by assessing risk variables, such as environmental effects and geopolitical pressures. The alignment with the long-term objectives and sustainable growth strategies is improved by including investor preferences and ethical considerations.

Consider the consequences

Ethical investment implies financial returns with the goals of maximizing both financial and social values but considering other essential factors such as environmental protection, health and human rights (Abdelaziz, 2018). While making an investment decisions, it is crucial to consider the potential consequences beyond financial returns. Unethical or irresponsible investments can encounter negative impacts on the environment, local communities, and the society as a whole. Hence, ethical implications of investment choices is essential to ensure investments create sustainable value and aligns with the personal values in regard to mitigating reputational and financial risks in the long run.

Reflect on Behavioural Biases

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Biases have no effect on the outcome when it comes to decision-making. Although biases can develop in a variety of ways, they frequently result from irrational or excessively optimistic viewpoints. The causes of irrational investing decisions are behavioural biases (Ahmad, 2015). It can be primarily quoted that by making rational and irrational decisions can investors lower their risk (Naseem et al., 2016). Hence, it is important to consider the behavioural components that affect investors in making investment decisions with the risk considerations. Behavioural biases are psychological aspects such as cognitive dissonance, anchoring, fear and greed, and mental accounting that influence individual or institutional investment (Painoli, 2022).

Develop Decision Making Framework

The historical and institutional considerations are essential in understanding the investment behaviour (Virlics, 2013). It is essential to study the theory of investment behaviour and investment decision in order to analyse the investment decision making processes in practice. An empirical analysis of these theories regarding the investments helps in better understanding of the risk factor implying the subjective factors of expected costs, up-graded techniques and risk-return perception. Further, the correct and effective empirical analysis and research of investments can be made based on the investment behaviour.

Continuous Review and Learn

Ethical investments undergo continuous review to ensure they remain aligned with the investor's values. According to the Australian Ethical Investment guide, they conduct periodic ethical reviews of investments, typically every two years, to assess if they are still consistent with their Ethical Criteria. The

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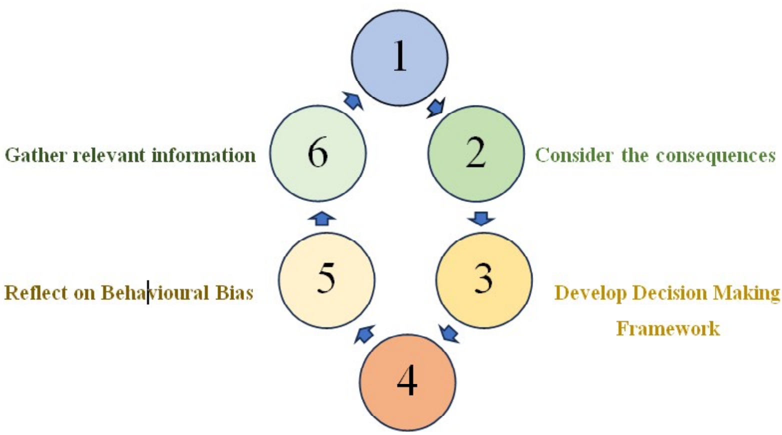
continuous monitoring and willingness to divest from unethical investments is a key aspect of maintaining the integrity of an ethical investment portfolio (Wallis and Klein, 2015). Investors can evaluate the suitability of assets by routine monitoring, quickly managing risks, and modify strategies in response to new developments. By being proactive, this strategy makes investment choices aligned with the financial objectives and are adaptable to shifting market, regulatory, and economic conditions.

A Model for Incorporating Ethical Considerations into Investment Decision Making

Identify and Prioritize Ethical Values



Conclusion

The investment management industry is based on trust, thus upholding ethical standards is essential. These ethical standards promote transparency in disclosing information to

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stakeholders and accountability for investment outcomes through integration of risk management strategies that mitigate risks associated with unethical practices, such as regulatory non-compliance or reputational damage. Adhering to ethical standards fosters trust among stakeholders and enhances the organization's reputation, which can lead to broader market acceptance and support.

Hence, the ethical practices and standards in investment decisions contribute positively to societal well-being by supporting businesses that uphold human rights, labour standards, and environmental protections. Investment professionals who demonstrate high ethical standards create long-term benefits for all stakeholders. In essence, ethical standards not only guide investment decisions but also play a pivotal role in shaping sustainable and responsible financial practices that benefit both investors and society at large.

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ESG INTEGRATION AND ITS IMPACT ON FINANCIAL PERFORMANCE OF COMPANIES: A FUNDEMENTAL APPROACH

✍**Merry Borgohain**

ABSTRACT

Sustainable development in every aspect plays a crucial role in today's world. The business organisations apart from the motive of maximising the profit need to be conscious enough to consider the cost incurred and benefit acquired from the environment, developmental initiative towards the society and maintain the principles of governance and to analyse the same, ESG (Economic, Social and Governance) reporting has evolved. The firms need to attach ESG report along with the annual reports which discloses the background of the three important components E, S and G and provide valuable information to the users of such information. This paper is an attempt to understand the implementation and impact of ESG on the financial performance. The paper is developed on the basis of secondary data and it is purely conceptual and descriptive in *nature. Literatures of the past studies regarding sustainable reporting and the disclosure of ESG report in the Indian business organisations, internet sources have been taken into consideration. The study gives a brief insight of what role does ESG reporting plays in the business and the importance of such reporting. It was found that the impact of ESG on financial performance differs on the basis of different criteria or circumstances. But the significance of ESG disclosure was found to be having impact in the long run aspect in value creation of the organisations.*

Keywords: *ESG, ESG disclosure, financial performance, sustainable development.*

Introduction

Disclosure of annual report is one of the utmost important tasks of any organisation. Apart from disclosure of all the material matter, disclosure of ESG report has become an influential factor for every organisation. ESG considerations have become increasingly significant in the financial market and serve as a concrete manifestation of sustainable development within a sector. The ESG evaluation system is based on the concept of "responsible investment" which was initially focused on a single level of social responsibility (CSR). ESG stands for Environmental, Social and Governance. It's a framework used by investors and companies to evaluate and measure the sustainability and societal impact of an investment in a business or organisation.

Environmental: This factor put emphasis on how a company's operations impact the environment, including its consumption of energy, management of waste, utilisation of resources, carbon

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footprint etc.

Social: Manging a cordial relationship with the employees, customers, suppliers, communities and other stakeholders is a significant factor to be considered and the social component put emphasis on the same.

Governance: This component assesses the quality of a company's leadership, management structures, internal controls, and shareholder rights. It includes factors such as board diversity, executive compensation, transparency, and the ethical business practices.

The companies apart from disclosing their net profit are also equally responsible to disclose the utilisation of the profit in ESG sector also. The researches shows that the companies with ESG disclosures attract more potential investors than the others. The nature, society and other factors that helps in generating the profit of the company, simultaneously company is also liable to consider those vital factors. ESG disclosures fosters accountability, encouraging companies to improve their ESG performance over time. Additionally, it can enhance the reputation of company attracting socially responsible investors and customers in long run. Overall, it promotes long term sustainability and helps to reduce risks associated with environmental and social issues. This paper is a minor attempt to understand the adoption and importance of considering these three vital factors in operations of the business both in case of the organisation and how the investors can think of responsible investing to boost the practices of ESG integration.

Objective of the study

a) To study the relevance of sustainability reporting on financial performance with the integration of ESG.

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Methodology

The study is conducted on the basis of secondary data. A conceptual literature review was conducted to acquire an overview of the ESG implementation in the context of Indian Companies. Literatures were reviewed regarding the concept of ESG, impact of sustainability reporting on the financial performance of the companies. The study is based on data accessed through past studies regarding ESG, internet sources and other sustainability issues.

Literature review on impact of sustainability reporting on financial performance

Sustainability or Environmental reporting plays a crucial role in expanding long term value creation of companies. (Tze San Ong, 2014) states it is undeniable that a company's green initiatives benefit from environmental reporting. The materials, energy, and water, as well as other environmental factors, local communities, and other social features, have an impact on both ROA and ROE when environmental performance is separately regressed with financial performance. Sustainability reporting is becoming more prevalent and an imperative for businesses to update all of their stakeholders on their economic, social, and environmental performance at the same time. Sustainability reporting includes non-financial data as well as financial performance data, such as details on social and environmental initiatives that support businesses' sustainable growth. Financial performance is positively but not significantly impacted by environmental performance, but financial performance is significantly impacted by environmental information disclosure (Msy. Mikial, 2018). (Paskah Ika Nugroho, 2014) states that the company should closely examine the costs and benefits of SR disclosure progressively as each year goes by, as there are

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significant expenses associated with it and rewards of this kind cannot be seen in the company's short-term achievement. Effectively implementing corporate social responsibility (CSR) can boost a company's profitability and alleviate associated risks. Likewise, investors, shareholders, employees, communities, and other stakeholders might discover sound sustainability reporting disclosure to be beneficial in making decisions. (Hardi, 2019) states that though environmental reporting is disclosed by the company but it would have significant impact in long term valuation not in short term as the investor's decisions are mainly depend upon the economic disclosures by the company and (Garg, 2015) also says that sustainability reporting has negative impact in short-run but has positive impact on long-run in the firm's financial performance. Many studies found that the stakeholders and potential investors are always attracted towards the companies that disclose the sustainability reporting in a much precise manner and take initiatives for more such developments. The mechanism of formal reporting can play significance in creating assets for the companies but the impact of reporting is also influenced by the company's size. (Ionica Oncioiu, 2020) stated that in addition to serving as a tool for business promotion, the sustainability report also provides consumers, actual and potential investors, and other interested parties with easily accessible information about the true effects of the enterprise's operations on the environment and society. Convening the sustainability reporting the companies can accelerate the financial performance and would also help in decision making. (Arina Felita, 2021) The reporting on sustainability is among the most crucial components in determining the performance of a company. Consequently, stakeholder trust is increased as a result of sustainability reporting. Growing trust has a knock-on effect

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on more operations, which suggests that the company's financial performance will get better eventually.

Impact of ESG disclosure on firm's financial performance

The concept of sustainability reporting, Corporate Social Responsibility initiatives have given a pace for further development and the concepts are now integrated as a whole of ESG disclosure i.e. all the three components are taken together to develop a sustainable business. The investors and other stakeholders are becoming more conscious and demanding for ESG information. The companies necessarily need to produce the ESG report along with that of the annual reports. So ESG reporting i.e. the non-financial reporting influences and has impact on firm's financial performance. Better the ESG performance, higher is the corporate performance (Tao, 2023). The companies are improving their performance of stock by integrating or taking initiative in ESG practices, it not only helps in reducing cost of capital but also positively impact the financial performance and such positive impacts are influencing the sustainable development (Somali Deb, Aug 2023). Accepting ESG factors can spur innovation and also provide new business prospects. Businesses that provide sustainable goods and services can put oneself in a better position to adapt to changing consumer demands and legal constraints in a much better way. Although they are still in their infancy, ESG investments are rapidly developing in India. The inclusion of ESG factors in investment decision-making processes is becoming essential given India's developmental aspirations in order to solve societal issues that continue to persist as well as growing environmental and climate-related concerns. Additionally, this aligns with achieving the nation's SDG objectives.

Sustainable development along with overall

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development, the business organisations need to perform simultaneously with. Sustainable reporting can be considered as a source of value adding for the business organisations. The sustainable development needs to be place in an important aspect as that of maximising profit and wealth. The business organisation is a part of society and the society relies on nature directly and indirectly for ultimate livelihood. It is a vicious circle that needs to be compensated in any way possible. The evolvement of the concept of ESG i.e. Environment, Social and Governance that resembles three extremely important elements that are required to be taken into consideration in valuation of company's financial position. These three non-financial elements influence the financial performance of companies. Apart from different countries of the worldwide, In India SEBI has introduced the necessity of ESG disclosure in 2012. The importance of ESG disclosure for the companies in India are like: developing interest of the investors and attraction more capital retention which also helps in decision making of the potential investors. Companies can detect and control risks associated with environmental, social, and governance issues with the aid of ESG disclosure. Businesses can strengthen their resistance to risks including supply chain interruptions, regulatory changes, and reputational harm by taking proactive measures to address these problems. An organization's reputation can be enhanced and its connections with key constituents boosted by exhibiting a dedication to ethical and sustainable business practices Including ESG factors in business plans can help create value over the long run. Businesses that prioritize sustainability are better equipped to adjust to shifting consumer demands and market conditions

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Conclusion

Considering ESG disclosure as a matter of concern in a broader perspective the paper was an attempt to understand the concept of ESG and integration of ESG. The past studies states that ESG plays a significant role in influencing the financial performance of companies. As the role of goodwill reflects an important light in the position of companies likewise the initiatives towards sustainability and disclosing them to the users also turns out to be an asset for the companies but at the same time few studies also have found that ESG does not significantly impact the performance of the companies which paves an inconclusive finding. The impact also varies on overall ESG valuation and when each of the elements are analysed and evaluated separately, it also shows variations. The ESG although did not have much of impact in short run but it would help in value creation in long run prospects. More of such research in concern with ESG would help and make realise the companies to take up the disclosure in a more prominent manner rather than to do it only for a sake. It was also found that the young and potential investors are very much attracted towards the investment in the companies' taking initiatives in ESG factors and so it was stated that the companies with genuine disclosures are found to attract more investment than those not appropriately take up the initiatives. The results according to the literatures reviewed also found to have variations on the basis of considering the variables (independent, dependent and control variables). Though the companies are at the very developing stage of disclosing ESG initiatives, it needs to be boosted up by taking into consideration the more positive aspects of balancing nature, society, governing principles and the business to have a win-win situation to the extent possible. However, the extent to which

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ESG integration impacts financial performance can vary depending on factors such as industry, company size, and regional market dynamics.

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INVESTMENT BAKING: ROLES, OPPORTUNITIES AND CHALLENGES IN INDIA

✍**Parishmita Gogoi**

ABSTRACT

Investment banking organizes large, complex financial transactions such as mergers or initial public offering (IPO) underwriting. An investment bank assist companies involved in merger and acquisition (M&A) and provide ancillary services such as market making, trading of derivatives and equity securities, and FICC services (fixed income instruments, currencies, and commodities).Unlike commercial banks and retail banks, investment banks do not take deposits. Investment banking largely performs two main functions as sell side and the buy side. The "sell side" involves trading securities for cash or for other securities (e.g. facilitating transactions, market-making), or the promotion of securities (e.g. underwriting, research, etc.). The "buy side" involves the provision of advice to financial institutions concerned with buying investment services such as Private equity funds, mutual funds, life insurance companies, unit trusts, and hedge funds. The Research *paper aims to show the role of investment banks in the present scenario. The present study is descriptive in nature and used secondary data. The study shows the growth, development, functions and the role of investment bank in the Indian Economy. The main objective of the study is to find out how investment banks increase the resources in the country, its role in economic growth, challenges and opportunities. It analyses the various functions performed by investment banks. Investment banks match those selling securities with those investors. Investment banks add liquidity to the market. Investment banks remove deficiency of capital by stimulating savings and investment. It mobilizes small and scattered savings of the community and makes them available for investment in productive enterprises. It is concluded that the role of investment banks in the economic development is significant.*

Keywords: *Investment Banks, Indian Economy, Market making, buy side, sell side*

Introduction

An Investment Bank is a financial intermediary between security issuers and investors and help new firms to go public. Investment Banking is a special segment of banking operations that helps individuals or organizations raise capital in the primary market, where new securities are issued and occupy a significant role in the secondary market by acting on behalf of their clients. Investment Banking falls under two broad headings: the provision of financial advice and capital raising. In this, primarily the act of the purchasing and selling of shares includes. Investment banking organization performs role as an intermediary between investor and capital market. Investment

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banking has now gained considerable position in Indian capital market. Investment banking should reach to investors and finally faithfulness of investor for investing in banking organization. The investment banking has the ability to draw willingness of their investors to invest more funds for investment in capital market. The government and semi-government agencies should come in a parallel manner to make new agenda or policies in the investment sector to improve Indian capital market.

Objective of the study

1. To assess the role of investment banks for growing Indian capital market which will ultimately be examining the relationship between investor and capital market.
2. To analyse the various functions performed by the investment banks.
3. To find out how investment banks increase the resources in the country.
4. To identify the challenges and opportunities of investment banks.

Methodology of the study

The study was descriptive in nature. The study was conducted based on secondary data collected from various journals, published sources such as annual reports, magazines, Newspapers and various other publications.

Role of investment banks

Investment banks play a significant role in the present economic scenario of a country. Investment banks are a bridge between large enterprises and investors. Their primary roles are to advise businesses and governments on how to meet their financial challenges and to help them procure financing, whether from stock offerings, bond issue, or derivative products. Issuing stocks and bonds is one of the primary ways for a company to

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raise capital. But executing these transactions requires special expertise, from pricing financial instruments in a way that will maximize revenues to navigating regulatory requirements. That's where an investment bank usually comes into the picture. Investment banking has changed over the years, beginning as a partnership firm focused on underwriting security issuance, i.e. initial public offerings (IPOs) and secondary offerings, brokerage, and mergers and acquisitions, and evolving into a "full-service" range including securities research, proprietary trading, and investment management. Investment banks work with commercial banks and help to determine prevailing market interest rates. The market rates of interest determine how profitable it is to save and how expensive it is to borrow. For the development of the country a sound financial system is inevitable. Some of the important role of investment banks in the development of a country is explained as below.

a) Capital Formation and Promote Industry

Capital is one of the most important aspects of any business or industry. It is the life blood of the business. Investment banks remove deficiency of capital by stimulating savings and investment. It mobilizes small and scattered savings of the community and makes them available for investment in productive enterprises.

b) GDP Growth And Investment Banking

Investment banks make direct and indirect investment in the economic development of India over the years. The amount generated by investment banks increase as years pass and provide healthy contribution in GDP growth.

c) Create employment opportunity

Creation of employment opportunity is significant for a developing country like India. Investment banks can play an

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important role towards employment creation. As the number of investment banks increase with increased volume of business, it creates employment opportunity in the country. More employment opportunities are created by generating capital fund for different industries. Growth in the investment sector generates more employment which helps in the overall development of the country.

d) Infrastructure Development

Government undertakes project for the infrastructure development of the country. For the implementation of the project funds are required. Investment bank can generate fund for infrastructure development projects undertaken by the Government which boosts the development of the economy.

e) Technological Improvement

In the present digital era technology plays significant role. Investment banking activities always work with new technology. Every major investment bank has considerable amounts of in-house software created by the technology experts who are also responsible for technical support. Technology has changed considerably in the last few years as more sales and trading desks are following electronic trading.

Functions of investment banks

a) Research Services

Investment banks provide research services to its clients which includes giving advice on buying and selling of securities, financial statement analysis, financial forecasting, financial modeling. Investment banks provide not only equity research services but also it provides fixed income research, financial research, economic research and analytical support across various asset classes, markets and client segments. Majority of

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the banks have staff of research analyst's who studies economic trends and news, individual company stocks and industry developments to provide prosperity investment advice to institutional clients and in-house groups.

b) Sales and Trading

This sales and trading activity in investment bank is much different. Investment banks deals with sales and trading of securities in secondary market. Investment banks are a bridge between large enterprise and the investor. Their main roles are to advise business and governments on how to meet their financial challenges and to help them procure financing from stock offerings, bonds issue or derivative products.

c) Raising capital

As a financial intermediary investment banks helps his clients for raising capital through IPO and FPO process or private placements. They primarily help their clients for raising money through debt and equity offerings. As above mentioned this includes raising capital through IPO (Initial Public Offerings), Private placements, or others on behalf of the client. Investment banks earn revenue through consulting fees. Client's takes help of investment banks for capital raising.

d) Underwriting

Investment banks provide underwriting of securities and broking related services for their clients. When an investment bank underwrites equity or any debt instrument, then investment banks ensures his clients that investors will purchase his newly issue of stocks. Investment banks plays intermediary role between his client and the investors.

e) Merger and Acquisition

This is one of the major functions which are performing by an investment bank. Investment banks provide advisory

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regarding to merger and acquisition to its clients. Investment banks create different merger and acquisition models. Investment bankers do accretion or dilution analysis to analyze company. Also Banks check synergies analysis. Investment banks have their separate mergers and acquisitions section that functions within their corporate finance departments. The major function of this department is to undergo market research and find out firms having excess cash which enables them to buy other firms which are willing to sell their entities due to various reasons. The investment banks around the world are now adopted a new tactic in which they offer package for financing the entire process of mergers.

f) Risk Management

Risk management is a continuously ongoing process which involves analysing the market risk and credit risk that an investment bank or its client takes onto their balance sheet during transaction or trade. It helps on setting limits on the amount of capital that they are able to trade in order to prevent bad trades having a negative effect. Credit risk focuses around capital market activities and market risk conducts review of sales and trading activities.

Table 1. Revenue of Investment Banks in India

S.L. No	Year	Revenue of Investments Banks in India (in billion USD)
1	2017	15.87
2	2018	17.42
3	2019	19.26
4	2020	20.30
5	2021	24.23
6	2022	15.14
7	2023	12.83
8	2024	15.50

Source: Statista Market Insights

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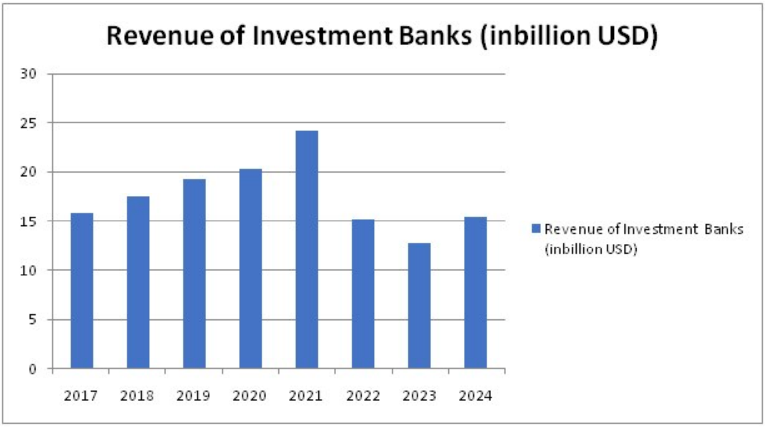

The table above shows revenue of investment banks. From 2017 to 2021 revenue depicts an increasing trend. In 2022 and 2024 it decreases and again in 2024 it is showing an increase in revenue from investment banks. The fluctuations in revenue could be due to varios challenges faced by investment banks.

Challenges faced by invetment banks

Investment Banks must be transparent, compliant with cyber security initiatives, and offer advanced solutions for the ever-changing needs of customers. Some of the important challenges faced by Investment Banks are discussed below:

a) Containing Costs

Banking, Financial Services, and Insurance (BFSI) companies are regularly evaluating various strategies to get better control on cost. They are constantly evolving their program & policies to achieve sustainable cost efficiency. Depreciating revenues, higher operational costs, lowering costs of goods and services, and reduced capital costs with banks reduces investor's

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interest to invest. Thereby many banks are reducing interest rates and the cost of equity.

b) Cybersecurity

Investment Banks are highly vulnerable to cyber security risks. This sector is more prone to get exposed to vulnerabilities that further bring compatibility concerns in M&A situations. The traditional infrastructure acquired by banks through M&A activities is outdated and more prone to getting exposed to cybercrime. Such systems needs to be updated which is a challenging task for the IT teams of these banks.

c) Improving Client Experience

Improving client-focused experiences in B2C and B2B models is another challenging task for investment banks. It is difficult for investment banking firms to deal with the increasing demands and expectations of their customers. Thus, the sector is required to consider new & improved delivery models that can assist today's customers.

d) Fintech as New Technology Threat

Investment Banks are adopting rapid advances in technology. However, Fintech has been emerging as a new industry trend over the past few years by facilitating the same set of financial services with effective financial technology at lower prices.

e) Retaining New Talents

The investment banking industry is introducing new policy measures, for example, fast promotion to induce new employees, but today's youth is seeking to work in a flexible industry with a proper work-life balance. The investment banker needs to do longer shifts & suffer through tight deadlines. Thus, sourcing and retaining talented minds has become a huge challenge for this industry. However, banking companies are

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figuring out new ways of attracting & retaining talented minds in their company.

f) Lack of Capital Resources

The global economy today is facing tremendous financial recessions & depressions. As a result, most individuals & companies aren't that much interested in investing their money. Rather they prefer retaining their money for a while instead of investing it in the short run. As a result investment banks are facing lack of capital resources to allocate to their customers.

Future prospects of investment banks

The future of investment banks looks great with technological advancements, changing market dynamics, and evolving client preferences. Increased digitization, AI, automation and innovation, growing focus on sustainability will be key driving forces of investment banks evolution. The investment banking sector has showed a solid performance after the pandemic and has recovered effectively. Some new trends expected to erupt in the investment banking sector in the near future.

a) Consider the governance arrangements required for a utility-based model to be successful.
b) Centralize data management and invest in application programming interfaces to develop flexibility and create seamless connectivity.
c) Shift in workforce and workplace practices from traditional, office oriented to more flexible workspaces backed by new innovative technologies.
d) A worldwide client business model with new consumer experiences.

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Conclusion

Investment Banking helps individuals or organizations raise capital and provide financial consultancy services to them. Investment banking is the most complex financial mechanisms in the world. The role of banks in the economic development is to remove the deficiency of capital by stimulating savings and investment. A sound banking system mobilizes the small and scattered savings of the community and makes them available for investment in productive organizations. With the potential to become the fifth largest banking industry in the world by 2020 and third largest by 2025, India's banking and financial sector is expanding rapidly. Bank of America, Barclay's capital, Citigroup Investment banking, Deutsche bank, JP Morgan, Goldman Sachs are some of the largest investment banks in India. Investment Banks are critical agents of capital formation and price setting. Investment banks influences the rate of economic growth because it is a component of aggregate demand and more importantly influences the productive capacity of the economy. From the analysis of the various functions performed by the investment banks as well as its role in the economic development clearly proves that the role of investment banks in the economic development of the country is significant.

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A STUDY TO EVALUATE THE AWARENESS OF CRYPTOCURRENCY AMONG THE STAKEHOLDERS OF GUWAHATI CITY, ASSAM

✍Dr. Rimakhi Borah

ABSTRACT

Cryptocurrency is a digital or virtual currency which is moulded to use as a medium of exchange used by strong cryptography to secure financial transactions and verify the transfer of assets. There is a gigantic market for crypto based products and services and it is growing speedily. Studies have found that nearly 1.5 crore Indians have invested in cryptocurrencies, signalling strong Cryptocurrency growth in a nation. The stakeholders of North Eastern States as well as Assam are also growing rapidly in this sector. In this backdrop, the present study has made an attempt to evaluate the awareness level of the stakeholders of few private universities of Guwahati city of Assam and to understand and analyse their opinions behind trading in Cryptocurrency.

Keywords: *Cryptocurrency, Stakeholders, Awareness, Trading Opinions, Guwahati City.*

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Introduction

What is currency?

Currency is a medium of exchange for goods or services within an economy. A currency is a form of money, usually issued by the public authorities in a particular jurisdiction. It performs three functions - it is a unit of account, a store of value and a medium of exchange. A currency is a monetary denomination, such as the dollar, euro or pound or rupee, i.e., accepted in payment within a given area or among a specific group of people. For India, the Reserve Bank of India issues the currency for the country. Currencies can be into three monetary systems; representative, commodity, and fiat money. Representative money is money printed on paper representing the value of an item or commodity. Commodity money is money in the form of other items such as gold or silk, which can be used in buying other goods. Fiat money is a currency issued by the government and not pegged on any commodity. Another form of currency gaining popularity is virtual currency, a digital, unregulated currency issued and controlled by the developer. Examples include Bitcoin and Litecoin. Leaving the three types of currencies, the latter currency, which is a virtual currency, is also known as Crypto-currency.

What is Crypto-currency?

A Crypto-currency (or 'crypto') is a digital currency that can be used to buy goods and services, but uses an online ledger with strong cryptography to secure online transactions. Crypto-currency is a form of payment that can be exchanged online for goods and services. All crypto-currencies are decentralized networks based on block chain technology. Block chain technology is nothing but defined as a system of recording details

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that makes it difficult to change and hack the system. Much of the interest in these unregulated currencies is to trade for profit, with speculators at times driving prices skyward.

There are many crypto-currencies in the present scenario. Some of the popular crypto are- Ethereum, which was launched in 2014, and it had received an overwhelming response. Bitcoin Cash, the earliest coin, and it was also the most successful coin. Litecoin, launched in 2011, which followed the footsteps of Bitcoin. Dogecoin, whose original name "memecoin" caused a stir in 2021 and the coin uses an image of the Shiba Inu as its avatar, and is accepted by major companies. Among others are Cardano (ADA), an "Ouroboros proof-of-stake", Polkadot (DOT), Stellar (XLM), Binance Coin (BNB), etc.

Advantages of Cryptocurrency

Cryptocurrency has many advantages. Few of the advantages are discussed below:

a) Self-governed and managed - All transactions are stored by the developers/miners on their hardware, which they get.

b) Cost-effective - Crypto-currency is one of the most useful digital exchange. All transactional fees are paid by the users and are reduced to a negligible or zero amount. Besides, it eliminates third parties like VISA or PayPal to verify a transaction and remove the need to pay extra transaction fees.

c) Secure and Privacy - One of the best things about crypto-currencies are they are highly secure as there is no involvement of the middle men. Further, it uses the block chain technology which is impossible for someone to hack as the Block chain relies on the different mathematical puzzles, which are hard to decode.

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d) Smooth Exchange - One can buy crypto using many currencies like the US dollar, European euro, British unit of measurement, the Indian rupee, or Japanese yen.
e) Easy Transfer - With respect to transactions, which can be domestic or international, they are quick as it needs less time for the verification process.

Current Cryptocurrency Scenario

In a study conducted by Farell, (2015) 'An analysis of the Cryptocurrency Industry' he states that the Cryptocurrency industry is rapidly moving forward. It has shown itself to be resilient in the face of major thefts and government shutdowns. Also he found that, the industry has expanded dramatically in the number of coins currently in circulation. Another study by Hileman, Dr. (2017) on 'Global Cryptocurrency Benchmarking Study' finds that the current number of unique active users of Cryptocurrency wallet is estimated to be between 2.9 million and 5.8 million. The lines between the different Cryptocurrency industry sectors are increasingly blurred giving rise to an increasing number of universal Cryptocurrency companies. Milutinovic, (2018), in the study 'Cryptocurrency' relays that, the digital revolution is a change from analogue and electronic technology to digital technology and is currently at its peak. The cryptocurrency as a digital form of money functions with the help of a technique called cryptography. The cryptocurrency is based on the digitized so-called, the main book of all crypto watch transactions called Blockchain. Another study by Sontakke, (2017) 'Cryptocurrency: A developing asset class' finds that, the cryptocurrency prices are purely driven by demand supply model, without any regulatory authority. Thus, forecasting cryptocurrency prices fundamentally is difficult. Cryptocurrencies have emerged as important financial software

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systems that rely on a secure distributed ledger data structure where mining is an integral part of such systems. Mining adds records of past transactions to the distributed ledger known as Blockchain, allowing users to reach secure, robust consensus for each transaction. (Mukhopadhyay, 2016)

Studies have found that nearly 1.5 crore Indians have invested in cryptocurrencies, signalling strong Cryptocurrency growth in a nation where households are known to invest more frequently in gold and other assets. There are online applications for investing in Cryptocurrency, viz. ZebPay, CoinDCX, WazirX, Unocoin, CoinSwitch, Kuber and vice versa. Even though Cryptocurrency has made the headlines in recent years displaying it to be an interesting market, there are numerous interested people in this field and there are many who are not interested or not aware of it. In 2021, Cryptocurrency and Regulation of Official Digital Currency Bill was introduced in the Parliament in the winter session. With this news the Crypto industry in India are hoping for a positive response.

Many studies were done on cryptocurrencies relating to its advantages, disadvantages, understanding and how cryptocurrencies are mined. There were few specific studies or research on Cryptocurrency about its awareness among the stakeholders particularly in the study area. In this backdrop, the present study has made an attempt to evaluate the awareness level of the stakeholders of few private universities of Guwahati city of Assam and to understand and analyse their opinions behind trading in Cryptocurrency.

Data methodology

Research design

The present study is exploratory in nature carried on the

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awareness of cryptocurrency among the stakeholders of private universities of Guwahati city viz., Assam Don Bosco University, Royal Global University and Girijananda Chowdhury Institute of Management and Technology. Therefore, this research has adopted the google form system to conduct the study.

Sample size and Sampling technique

Since the exact population is not known due to the confidentiality of the universities, therefore convenient sampling technique has been used for purpose of the study. 400 respondents were conveniently chosen and questionnaires were shared. From this only 274 responded, which includes 222 students and 52 faculties.

Sources of data

To achieve the objectives of the research, the data has collected from both primary and secondary sources.

a) Primary data: The primary data has been collected through questionnaire using Google Form from 274 respondents.

b) Secondary data: The secondary data has been collected from various journals, articles and websites.

Tools and techniques of data analysis

The collected data were analysed using statistical tool like frequency, percentage, pie charts and bar charts. In order to assess the awareness level and satisfaction level 5 point and 3 point- Likert Scale has been used.

Research Questions

The research questions mentioned below are based on the objective of the study:

a) What is the awareness level of cryptocurrency among the stakeholders?
b) What is the investment behaviour of the stakeholders and the reason behind their investment?

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Results and discussions

In order to complete this research data were collected from the students and the faculties of the studied private universities. Data collected from 274 respondents, which includes 222 students and 52 faculties were analyzed and interpretated as follows:

I. Demographic Profile

Gender Distribution

The study witnessed that out of the total frequency of the population, 57% of the respondents were male and the remaining 43% were females.

Age distribution

The study shows that majority of the respondents are in the age group which falls between 18 -25 which includes the students. It is 78% of the total population counted for. The next highest falls in the age group of 25 - 40, followed by age group of 40 - 55 which basically includes faculties.

Professional distribution

The study reveals student respondents are 222 in number and faculty respondents are 52 in number. Percentage wise it is 81% for student and 19% for faculty.

Monthly Income Distribution

The study displays monthly income of the respondents. The highest in the chart is the income range of - Below Rs. 20000. This income range suits majority for students. And for faculties, majority of them fall under the income range of Rs. 40000 - Rs. 60000.

II. Awareness Level Among Stakeholders

Are you aware of Bitcoin/Cryptocurrency

The study shows that the 44 (84%) of the faculties are aware of cryptocurrency and 8 (16%) of them are not. Also for the

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students 152(68%) of them are aware and 70 (32%) are not aware.

Are you aware when Cryptocurrency was invented?

The study shows 20 (38%) faculties and 64 (29%) students know when cryptocurrency was invented. 24 (46%) faculties and 110 (49%) students have no knowledge. Whereas, 8 (16%) faculties and 48 (22%) students responded 'somewhat' they have knowledge. The reason behind the lack of knowledge regarding the invention of cryptocurrency may be due to being a new concept of digital currency and limited usage, though it has been 15 years since its invention.

Are you aware when Bitcoin was created?

Many respondents in the study have limited knowledge on the invention year of bitcoin. The study shows that 16(30%) faculties and 72 (33%) students have the knowledge of it; 26 (50%) faculties and 115 (51%) students don't have the knowledge of it. The rest 10 (20%) faculties and 35 (16%) students responded 'somewhat' they have knowledge on the invention year of bitcoin.

Are you aware that Cryptocurrency is not legal in India and 30% tax is imposed on the previous investors by the Central Government?

The study provides us with the information of the awareness of the respondents on the legality and tax imposition on cryptocurrency by the Central Government. 30(57%) faculties and 114(51%) students are aware of it; 15(30%) faculties and 71(32%) students are not aware of it. The rest 7(13%) faculties and 37(17%) students fall under the category 'somewhat' they have knowledge of the matter. The newly proposed cryptocurrency tax has been applicable from AY 2023-24, which means all income from crypto transactions in FY 2022-23 will

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be taxed at the rate of 30 percent.

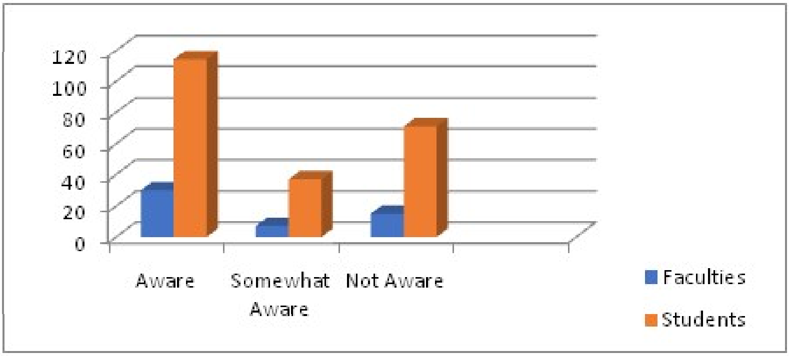

Fig 1: Awareness on legality of Cryptocurrency in India

Do you think authorities should be responsible for monetary policies regulation regarding Cryptocurrency/ Digital Currency?

The study has tried to obtain the views of 52 faculties and 222 students on whether the authorities should be responsible for monetary policies regulation. The study showed that 76% faculties (out of 52) and 47% students (out of 222) think that authorities should be responsible for monetary policies regulation; 7% faculties and 18% students think the otherwise. The rest 17% faculties and 35% students have no opinion on the statement. With proper regulation it will protect long-term investors, prevent fraudulent activities within the crypto ecosystem and also provide clear guidance to allow companies to innovate in the crypto economy.

Do you agree Cryptocurrency is a good investment opportunity?

The study shows us that out of 52 faculties and 222

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students, 19% faculties and 5% students have strongly disagree towards Cryptocurrency being a good investment opportunity, 3% faculty and 4% students disagree towards Cryptocurrency being a good investment 55% faculties and 50% students are on neutral side; 16% faculties and 25% students have agreed and 7% faculties and 16% students have strongly agreed on cryptocurrency being a good investment option. We can see the numbers are higher in favour of agreeing to the statement. Investing in crypto assets is risky but also extremely profitable. In order to be on the safer side, it is recommended to buy stocks of companies with exposure to cryptocurrency such as Square, PayPal, Tesla, etc.

Do you consider Cryptocurrency more like a currency or a speculative asset?

The study displays the respondents' opinion on cryptocurrency as a currency or a speculative asset. To be more specific, crypto cannot be directly termed as currency because it does not have a legal tender, but it can be referred to as virtual currency or virtual money. It is a speculative asset when it becomes more valuable in the near future. 11% faculties and 21% students have considered cryptocurrency to be a currency; 27% faculties and 49% students have considered cryptocurrency to be a speculative asset. The rest 62% faculties and 30% students are not aware of it.

Do you think Cryptocurrency will dominate the currency world in the next 10-15 years?

The study shows respondents opinion on cryptocurrency whether they will dominate the currency world in the next 10 - 15 years. 19% faculties and 23% students has responded positively, 19% faculties and 9% students responded negatively and 46% faculties and 58% students responded maybe and; the

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rest 16% faculties and 10% students have no opinion on the statement.

Are you aware of the different online platforms to trade currency?

There are different online platforms to trade currency. The study tries to find out about the awareness of the respondents on the different online platforms. Findings revealed 83% faculties and 70% students are aware of it and 17% faculties and 30% students are not aware of it.

Have you ever bought Bitcoin or any other Cryptocurrencies?

The study shows us how many respondents ever bought bitcoin or any other cryptocurrencies. From the study it can be seen that, only 43% faculties and 28% students have bought cryptocurrencies though majority are aware of it and 57% faculties and 72% students have not bought bitcoin or any other cryptocurrencies ever.

What is the main reason for your purchase?

If the respondents have bought the cryptocurrency then the next question that comes to us is the reason for the purchase. Out of the 43% faculties and 28% student investors, the study shows the respondents'/investors reason for the purchase. 83% faculties and 49% students have bought the cryptocurrency due to huge profit; 13% students bought it for anonymity from government; 19% students bought it for freedom from banks; 17% faculty and 10% students bought cryptocurrency for speculation. The rest 9% student bought cryptocurrency to gain experience from the digital market.

What App do you prefer to use for trading Cryptocurrency?

Applications preferred by the respondents for investing in crypto were also surveyed. The study found that out of 43%

faculty and 28% student investors, Coin DCX is preferred by 50% faculties and 32% students; CoinBase by only 16% students; WazirX is opted by 50% faculties and 19% students and; Binance is preferred by 10% students. The rest 23% students who opted for other applications includes Coinswitch and BitBins.

Do you trust the technology of Cryptocurrency in the long term?

Trust is a factor to be considered for the growth of any market. Respondents trust factor on the cryptocurrency's technology in the long term was assessed and found that out of the invested stakeholders 67% faculties and 50% students trust the technology while 33% faculties and 23% students do not trust the technology of cryptocurrency in the long run.

III. Responses of Stakeholders regarding Services of Cryptocurrency

Are you satisfied with the services provided in the Cryptocurrency Market and the Apps?

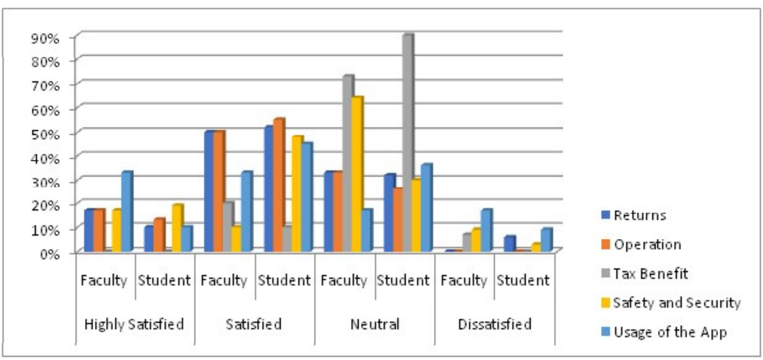

Fig 2: Satisfaction Level with the services provided in the Cryptocurrency Market and the Apps

Figure 2 shows the satisfaction level of the stakeholders

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regarding the services provided in the Cryptocurrency market and the apps. The responses of the stakeholders has been discussed below:

Returns

The study have showed that 17% faculty and 10% students are highly satisfied with the returns; 50% faculties and 52% students are satisfied with the returns; 33% faculties and 32% students have neutral opinion on returns and 6% students are dissatisfied with the returns.

Operation

Regarding operation, the respondents are satisfied with the operations of the cryptocurrency market. 17% faculty and 13% students are highly satisfied with the operation of the market; 50% faculties and 55% students are satisfied with the operations and 33% faculties and 26% students have neutral opinion on the operation of the Cryptocurrency Market.

Tax Benefit

Figure 2 shows the opinions of the stakeholders on the Tax Benefit of the cryptocurrency market. 20% faculties and 10% students are satisfied with the tax benefits; 73% faculties and 90% students have neutral opinion on the market; 7% faculties are dissatisfied with the tax benefits regulated in the market. Majority students have neutral opinion on these criteria as they do not fall under the tax slab.

Safety and Security

Stakeholders' opinion on cryptocurrency market's and app safety and security was obtained. The study found that 17% faculty and 19% students are highly satisfied with the safety and security; 48% students and 10% faculties are satisfied on these criteria; 64% faculties and 30% students have neutral response

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on Safety and Security and 17% faculty and 9% student are dissatisfied on cryptocurrency market's and app safety and security

Usage of the App

On the usage of the apps, 33% faculties and 10% students are highly satisfied with the usage of the App; 33% faculties and 45% students are satisfied with the usage of the App; 17% faculty and 36% students have neutral opinion and 17% faculty and 9% are dissatisfied with the app services.

From the above study and analysis, it can be concluded that majority of the respondents are aware of cryptocurrency and its related information. The male respondents are more in number than that of the female. Data are collected from both students and faculties which gives us a clear result of difference between the two different respondents. Some consider cryptocurrency to be a currency while the others consider it as a speculative asset and a great number of them agree that authorities should monitor cryptocurrency's monetary policies regulation. The extent of awareness regarding the availability of different online platforms is high but when it comes to purchasing them the result turn out to be otherwise. Only a few from the faculties and students actually purchase cryptocurrency. With this it brings us the second objective of the study. After the analysis, it is clear and can be concluded that the main reason for purchasing the cryptocurrency is because of huge profits and freedom from banks. Lastly, the respondents gave their honest responses on their extent of satisfaction on the services provided in the cryptocurrency market such as Returns, Operation, Tax Benefit, Safety and security and Usage of the App.

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Conclusion

The Cryptocurrency industry is rapidly moving forward. It has shown itself to be resilient in the face of major thefts and government shutdowns. The industry has also expanded dramatically in the number of coins currently in circulation. The cryptocurrency as a digital form of money functions with the help of a technique called cryptography to secure financial transactions and verify the transfer of assets. The extent of awareness among the stakeholders regarding the crypto and availability of different online platforms for trading in it is high but when it comes to purchasing them the result turns out to be otherwise. Only a few actually purchase cryptocurrency. Therefore, steps should be taken by the crypto market to encourage the investors to invest in these new forms of digital currency and avail the benefits of it. In addition to these, the loopholes of this market should be mitigated so as to motivate the investors.

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NAVIGATING THE PATH TO SELF-RELIANCE: ANALYSING RUPAY CARD'S CONCEPT AND CHALLENGES

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ABSTRACT

Self-Reliance refers to the self-sufficiency stage of an economy where an economy depends on its own. The inherent objective of Atmanirbhar Bharat Abhiyan is to make India and Indians self-reliant in all respects. This concept came into the lime light after the declaration of COVID-19 pandemic related economic package by the Government of India on 12th May 2020. It heavily stressed on promotion of domestic products and services in order to make Indian economy self-reliant. However, National Payment Corporation of India [NPCI] launched RuPay Card on 26th March 2012, as an initiative driven by the vision of making India self-reliant in the financial world. RuPay card offers immense benefits to its customers and it has sizeable scope and opportunity in diverse and giant Indian market. The ever-growing smartphone and internet penetration has led to exponential growth in e-commerce that accelerates the demand

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of debit and credit cards. The market share of RuPay card has increased substantially, however, it has not been manifested in RuPay card-based point of sale terminal driven transactions. The current research article is of exploratory nature that aims at analysing the prospects and problems of RuPay card on the way of materializing the vision of self-reliant India ahead.

Keywords: *Self-Reliant, RuPay NPCI, e-Commerce, & Point of Sale*

Introduction

Self-Reliance is concerned with the self-sufficiency of an economy where an economy depends on its own to its diverse needs. The underlying goal of Atmanirbhar Bharat Abhiyan is to make India self-reliant in various facets of growth and development. This concept came into the lime light after the announcement of COVID-19 pandemic related economic package by the Government of India on 12th May 2020. Under this campaign, government heavily emphasised on promotion of domestic products and services to make Indian economy self-reliant. However, the launch of RuPay Card by the National Payment Corporation of India [NPCI] on 26th March 2012 provided a strong basis to India to be self-reliant in the financial world. The intent behind the launch RuPay card was to develop a simple, secure, and cost-effective payment method for the nation. NPCI created "RuPay"-our first national brand for plastic money-to make this a reality. The RuPay brand highlights India's pursuit of economic and financial independence (Patil, 2022).

Objective of the Study

The current research article has been driven by following objectives:

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a) To identify the prospective potential opportunities in RuPay Card.

b) To analyse the inherent challenges of RuPay Card

Research Methodology

The present study is of exploratory nature. It is primarily based on secondary sources of information. Different online and offline research articles, newspaper articles, and related websites have been accessed. Tabulation has been applied towards the presentation of data and simple percentage has been used for the analysis of data retrieved from the secondary sources.

RuPay Card: An Overview

In India, ninety percent of credit card transactions and nearly all debit card transactions are domestic. However, transaction costs were high because of the dominance of foreign card payment networks such as Visa and Mastercard (Singh, 2019). This is because, in the absence of a domestic payments network, banks were required to pay significant fees to international companies like Visa and Mastercard for trustworthy associations. Recent years have seen a huge rise in the use of plastic cards, and it was thought that by making this transaction process India-centric, costs might be greatly reduced. Therefore, the National Payments Corporation of India (NPCI) introduced the RuPay card on March 26, 2012, realising the potential for card growth in India. Following the launch in 2012, RuPay was made available to the public on 8th of May 2014 (Bhatt & Raiyani, 2019). The name 'RuPay' was conceptualised in India and is a combination of the words 'Rupee' and 'Payment'. RuPay cards work on three channels viz. all ATMs, Point of Sales (POS) and e-commerce. RuPay is India's answer to Visa and MasterCard and has been set up at the behest of the Reserve Bank of India (RBI) to bring down transaction costs and spread

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electronic payments. So, it is a revolutionary step of India, deserving all the praise (Prakash, 2018).

RuPay Card: Prospects & Challenges

From just 0.6% market share in 2013 to almost 35% in 2016 and now more than 50% share in the India's debit card market by volume, surpassing the age-old leaders Visa and Mastercard. Demonetization and the provision of RuPay cards to account holders in all accounts opened as part of the PM Jan Dhan Yojana were two factors that contributed to its rise (Siddharth et al., 2019). In addition to its widely circulated debit cards, RuPay also issues Kisan Credit Card, PunGrain card (a Punjab government initiative), Mudra card, PMJDY card etc. to cater to the different needs of the Indian demographic. The market share of RuPay has increased to more than 60% of all cards issued as on November 30, 2020, with approximately 60.36 crore RuPay cards being issued by nearly 1,158 banks. A significant percentage of RuPay cards is in the nature of debit cards with only 9.7 lakh credit cards issued as on November 30, 2020. (RBI, 2021)

Despite the difficulties, the Indian market has enormous potential for card penetration. Consumers, businesses, and banks in India will all have their needs met by RuPay Cards. The advantages of the RuPay debit card include the product platform's versatility, its widespread acceptance, and the strength of the RuPay brand, all of which will enhance the product experience. Benefits include lower costs that make them more affordable, the retainment of customer data in India, customised products for Indian consumers, the ability to reach untapped markets, inter - operability, and a lower processing fee compared to other international competitors (Gupta, 2017).

RuPay credit and debit cards have many variants, such

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as RuPay Select, RuPay Platinum, and RuPay Classic. RuPay Contactless is a recent initiative with the revolutionary concept of One Card for All Payments. This card can be used to pay for daily retail transactions, for tolls and parking, and for transit services like buses and metros. The main advantages of RuPay card are lower cost and affordability, customized product offering, protection of information related to Indian consumers, provides electronic product options to untapped/unexplored consumer segment (Singh, 2017). As a product of the National Payment Corporation of India, a non-profit organisation, it tries to cut costs and provide people with low transaction costs. Its low cost along with government support make it easy for banks to reach out to rural areas and provide services. Its transactions are extremely fast because data is routed through Indian servers for verification, whereas other cards use servers located in foreign countries. As a result of this, customer data stays in the country. Rupay cards use Europay MasterCard Visa (EMV) chips, which greatly reduces fraud (Siddharth et al., 2019).

The partnership between NPCI and international network partners (Discover Financial Services, Japan Credit Bureau, and China Union Pay) has made it possible for RuPay to be accepted internationally (RBI, 2021). Currently, RuPay cards are accepted in Singapore, Bhutan, Maldives, UAE, Bahrain, Saudi Arabia, Myanmar, South Korea, Nepal, France, United Kingdom, Russia, Oman, Europe. Future markets include Australia and Philippines. PayPal, an online payment system company acknowledges the RuPay card. Amazon accepts all RuPay debit cards and some RuPay credit cards issued by selected banks. In July 2021, Apple begun accepting RuPay debit and credit cards on the Appstore and iTunes Store. However, RuPay cards are yet not accepted as a valid payment method on Google Play for making purchases

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in apps and games .

The Central Government reimbursed MDR fees on transactions up to 2000 made through debit cards, BHIM UPI, and Aadhaar-enabled payment systems after demonetisation to encourage digital transactions till December 2019. But from January 1, 2020 no fee, including Merchant Discount Rate (MDR), will be charged on payments made using the authorised electronic payment methods, including debit cards powered by RuPay, UPI (BHIM-UPI), and UPI QR Code (RBI, 2021). As a result, RuPay card-issuing banks benefit from not having to pay network registration fees, which is not the case with MasterCard or Visa registrations. Banks are permitted to levy MDR - 0.4-0.9% - on merchants for transactions involving Mastercard and Visa debit cards.

In developed nations, cards account for 30 to 50 percent of all purchases (Mukaria, 2018). Since our country is still developing, there is a tremendous opportunity for growth. The ever-growing smartphone and internet penetration has led to exponential growth in e-commerce that accelerates the demand of debit and credit cards. Increased competition, Government's backing, public sector bank's push and strategic partnerships with foreign markets will contribute to a greater acceptance of RuPay cards across platforms and provide the ultimate consumer with flexible choices. Although RuPay has gained market share of 60% over the past few years (RBI, 2021), it still has a long way to go in terms of its credit card penetration and its complete acceptance as it is not fully operative on each & every platform (Bhatt & Raiyani, 2019).

Challenges faced by the 21st Century banking has become wholly customer-driven & technology-driven by challenges of competition, rising customer expectations &

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shrinking margins, banks have been using technology to reduce cost & enhance efficiency, productivity & customer convenience. Currently, three out of every four Jan Dhan account holders have a RuPay debit card, though it is unknown how many of them use it. Bankers point out that very few beneficiaries may actually be using these cards and that their actual usage is still low . There is a need to educate them about the differentiating factors of the various cards. Because Visa and Mastercard are advertising regularly and thereby increasing awareness. The strategy should be to emphasize on its differentiating characteristics.

Analysis of Data on RuPay Card Usage

Table 1: Year Wise Statistics of RuPay Cards Driven Transactions

Financial Year	RuPay Card Usage at Point of Sale [PoS] Terminals		RuPay Card Usage at e-Commerce Platforms	
	Number of transactions (Lakhs)	**Amount of Transactions (INR Millions)**	**Number of Transactions (Lakhs)**	**Amount of Transactions (INR Million)**
2014-15	53	897	9	42
2015-16	254	3728	102	48
2016-17	1,952	24163	876	4945
2017-18	4,596	40686	2,081	13841
2018-19	6,950	67353	4,321	30575
2019-20	8,226	95568	6,581	50867
2020-21	7,020	97448	6,797	77227
2021-22	8,439	123926	6,725	80493

Source: Business Standard

It can be easily concluded from the data contained in Table 1 that RuPay card usage volumes at PoS increased manifolds during the financial year 16-17 which was also the year of demonetisation. Demonetisation provided a thrust to

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digital payments. RuPay card usage at PoS, in terms of both volume and value, was the highest in the financial year 2021-2022. And, the usage of RuPay card at e-commerce in terms of volume was the highest in the financial year 2020-2021. And, in terms of value it was the highest in the financial year 2021-2022. The pandemic slowed the usage at PoS terminals in financial year 2020-2021 but from the table, it is clear that pandemic definitely boosted the usage of RuPay cards at e-commerce transaction during the financial year 2020-2021. People used their cards for purchases online because of lockdowns at various places.

Table 2: Year Wise Percentage Growth in RuPay Cards Driven Transactions.

Financial Year	Year Wise Growth in RuPay Card Usage at Point of Sale [PoS] Terminals		Year Wise Growth in RuPay Card Usage at e-Commerce Platforms	
	Number of Transactions	**Amount of Transactions**	**Number of Transactions**	**Amount of Transactions**
2014-15	-	-	-	-
2015-16	379	316	1033	1043
2016-17	669	548	759	930
2017-18	135	68	138	180
2018-19	51	66	108	121
2019-20	18	42	52	66
2020-21	-15	2	3	52
2021-22	20	27	-1	4

Source: Author's Computation Based on Figures of Table 1.

It can be inferred from the data contained in Table 2 that the usage of RuPay cards, both in terms of volume and value at PoS and e-commerce, are increasing but at a diminishing rate. However, there's an increase in usage of RuPay card at PoS terminal. The growth in RuPay cards usage was the least in the financial year 2020-21. The growth in usage of RuPay cards at

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PoS was the highest in the year 2016-17. RuPay cards' usage at PoS has started to show an increasing trend in 2021-22. But, the growth in usage of RuPay cards at e-commerce sites is declining continuously, both in terms of volume and value.

Table 3: Overall Usage of Debit Card and Credit Cards at Point of Sale [PoS] Terminals

Financial Year	Total [Approximate Figure]	
	Number of Transactions (Billion)	**Amount of Transactions (INR Trillion)**
2020-21	2.95	6.58
2021-22	3.41	8.32

Source: Reserve Bank of India

We can easily observe from the data contained in Table 3 that the overall card usage at PoS terminals has increased during the year 2021-22 in both the volume and value.

Table 4: Percentage (%) Share of RuPay Cards in Overall Debit Cards and Credit Cards Usage at Point of Sale [PoS] Terminals

Financial Year	Number of Debit Card and Credit Driven Transactions [Lakhs]		Percentage Share of RuPay Cards Driven Transactions [Aggregate Volume]	Amount of Debit Card and Credit Driven Transactions [INR Billion]		Percentage Share of RuPay Cards Driven Transactions [Aggregate Value]
	RuPay Cards	**Overall Cards**		**RuPay Cards**	**Over all Cards**	
2020-2021	7,020	29494.05	**23.80**	97.45	6584	**1.48**
2021-2022	8,439	34091.69	**24.75**	123.93	8322	**1.49**

Source: Author's Computation Based on Figures of Table 1 &3.

We can conclude from Table 4 that the percentage share of RuPay card driven transactions in the overall debit card and credit driven transactions is very low both in terms of volume and value.

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Conclusion

It can be concluded from the aforesaid analysis of data and review of related literatures that though it has been a decade since the launch of RuPay card and the market share of RuPay has increased to more than 60% of all cards issued as on November 30, 2020 (RBI, 2021) but, the percentage share of RuPay cards at PoS terminals remains less than 2%. In developed nations, cards account for 30 to 50 percent of all purchases. Our country is still developing and it is one of the largest economies around the world, so there is a tremendous opportunity for growth. Since, RuPay is our home grown brand of plastic money providing many benefits such as consumer data security, less processing time, lower costs, etc., the prospect for RuPay card is an appealing one despite the challenges. The rapid growth of smartphones, Internet penetration and e-commerce is complementing this growth opportunity. Card transactions made with debit and credit cards, are continuing to increase. Increased competition and strategic partnerships with foreign markets will contribute to a greater acceptance of RuPay cards across platforms and provide the ultimate consumer with flexible choices.

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PERFORMANCE OF INITIAL PUBLIC OFFERING (IPOS) OF SMALL AND MEDIUM ENTERPRISES (SMES) IN INDIA

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ABSTRACT

The performance of Initial Public Offerings (IPOs) of Small and Medium Enterprises (SMEs) in India has garnered significant attention in recent years due to the pivotal role SMEs play in the economic growth and employment generation. This study aims to examine the performance of SME IPOs listed on the exchanges in India, focusing on their trends, listing day performance, listing gains. By analyzing SME IPOs for a period of 9 years from 2015-2023, this research investigates the trends, patterns and their performance. The findings reveal the overall success of SME IPOs in providing listing day gains to its investors. The study reveals that the SMEs in recent years have perform well considering the listing gain and investors can take

them as an opportunity to make some quick return by investing in such IPOs.

Keywords: *Performance of Initial Public offering (IPOs), Small and Medium Enterprises (SMEs), Listing day performance.*

Introduction

Initial Public offering is an activity of raising fund by an organisation from the capital market. The capital market can be divided into interdependent and inseparable segments, viz. new issue market called primary market and stock exchanges called secondary market. Primary market provide the way for corporate for raising fresh capital from the investors. Secondary market on the other hand promises liquidity to the investors thereby giving confidence to the investors to invest in the capital market. The presence of strong capital market ensure easy and efficient flow of funds to the corporate leading to economic growth in the Country

An IPO paves the way for companies to participate in the capital market. It ensures the companies with access to finance from the investors across the globe. An IPO increases the credibility and publicity that a business receives. In many cases, an IPO is the most common and easy way to finance growth and expansion of a business. Increasing numbers of IPO is a sign of a healthy stock market and economy of a Country. An initial public offering is the realization of a dream for many entrepreneurs, executives, board members and stockholders, a singular achievement that demonstrates their success in building a strong business and creating value for owners, employees and customers. However, an initial public offering is not only a milestone; it is also the entrance into a new stage.

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Different factors affect the success of an Initial Public Offering, which includes:

a) The condition equity markets;
b) The perception of investors about the company and its industry segment.
c) The financial performance and recent results of the company; and
d) The quality, experience and commitment of the company's managementand the board of directors,as well as other stakeholders.

Small and Medium Enterprises (SMEs) in India:

In India, Small and Medium Enterprises (SME) is used to describe small scale units and medium-scale units. Any industrial unit with a total investment upto Rs10 million is considered as a small scale unit and investment upto Rs. 100 million is considered as a medium unit

The SME sector deals with almost all types of industrial products which includes food products, beverage, cotton textiles, wool, silk, synthetic products, jute, wood products, paper & paper products, printing publishing and allied industries, machinery, machines, apparatus, appliances, electrical machinery different types of services etc. The number of SME working units (registered & unregistered) in India is about 3.37 lakhs in 2023.

SME along with the micro units are the significant segments of the Indian economy, contributing nearly 30 per cent to the Indian GDP and providing employment to over 36 million people which is around 40% of total employment in the country. The Indian SME segment's current production value is almost Rs 816,000 crore. It contributes to around 40% of industrial production & exports. SMEs sector is recognized as the engine of growth with significant contribution to employment and GDP. In recent years SME participation in primary market has seen a significant growth. Considering the capital raised by SME through IPO it is found to be above 18,000 crore till 2022. The recent trend shows increase participation of investors with robust subscriptions of most of the IPOs in this segment. In this context the present paper study the IPOs of SMEs to identify how these IPOs has performed on the listing day.

Review of Literature

Chhabra, K. (2016) specifically examines the performance of SME IPOs in the Indian context. It offers empirical evidence and insights into short-term and long-term performance.

Kumar, S. (2007) Kumar's research on investor sentiment and its impact on IPO pricing is critical for understanding the psychological and behavioral aspects that can influence IPO outcomes in the Indian market.

Ljungqvist, Alexander P. (2007) survey on IPO under pricing provides a broad overview of the IPOs, summarizing key findings and theories that are relevant for understanding the initial performance of SME IPOs.

Aggarwal, Rajesh, Laurie Krigman, and Kent Womack (2009) is a significant contribution to understanding IPO, information momentum, and lockup expiration selling. It provides insights into strategic behaviors of underwriters and investors.

Loughran, Tim, and Jay R. Ritter (2004) discusses the changes in IPO under pricing over time, offering a historical perspective that can help contextualize current trends in the Indian SME IPO market.

Mishra, S. (2019) in his article studies the challenges

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and opportunities for SME IPOs highlighting practical issues and potential growth areas for SMEs in the capital market.

Ritter, Jay R. (1991) in their paper "hot issue" market and long-run performance of IPOs present a foundational studies that provide deep insights into the initial and long-term behaviour of IPOs, including SMEs.

Jain B.A. (1994) studied the post issue operating performance of IPOs and found that IPOs generally underperform in the long run .

Objective

a) To study the trend of IPOs of SME during the study period

b) To study the listing day performance ofIPOs of SME during the study period.

Methodology

The present study is a descriptive study. In order to study the IPOs of SME's a period starting from 2015 to 2023 is considered. Data were used relating to numbers of SMEs successfully listed in the Indian Stock Market and its listing day profit or loss during the aforesaid period.

The required data for the study are collected from secondary sources which includes NSE & BSE website, Chittorgarh and different others websites.

Data collected are presented with the help of tables, diagrams etc. Simple average, percentage, frequencies are employed to have a clear understanding. The listing day gain or loss is calculated using the formula =

(Closing price on listing day- issue price)/Issue price* 100

Discussion

Table 1: IPOs of Small and Medium Enterprises listed in Indian Stock Exchanges during the study period:

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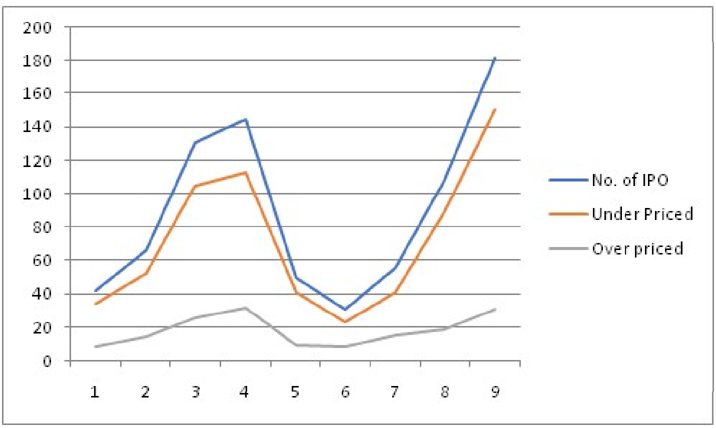
Year	No. of IPO	Under Priced	Over priced
2015	42	34	8
2016	66	52	14
2017	131	105	26
2018	145	113	32
2019	50	41	9
2020	31	23	8
2021	56	41	15
2022	109	90	19
2023	182	151	31

Figure 1: Showing IPOs of Small and Medium Enterprises listed in Indian Stock Exchanges during the study period:



From the table 1 and figure 1 shows the small and medium enterprises listed successfully in Indian Stock exchanges during the study period. 2023 sees the highest numbers of IPOs, whereas 2020 sees the lowest number of IPOs. During the period majority of the IPOs are found to be underpriced offering listing gains to

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the investors. While a few of the IPOs fail to generate listing gain depicting overpriced.

Table 2: Year wise performance of IPOs of Small and Medium Enterprises in Indian Stock Exchanges during the study period:

Year	No. of IPO	Negative Return	0%-10% Return	11%-30% Return	31%-50% Return	51%-100% Return	Above 100%
2015	42	8	24	7	1	2	0
2016	66	14	35	17	0	0	0
2017	131	26	60	42	0	0	3
2018	145	32	83	27	1	2	0
2019	50	9	37	4	0	0	0
2020	31	8	22	1	0	0	0
2021	56	15	26	9	3	0	3
2022	109	19	31	15	14	22	8
2023	182	31	49	33	19	33	17

Table 2 shows the performance of IPOs of Small and Medium Enterprises in India from 2015 to 2023. In 2015, 24 IPOs provide return between 0% to 10%, 7 IPOs provide return between 11% to 30%. While 2 IPOs provide return more than 51%-100% while 8 no. of IPOs couldn't provide listing day gains. In 2016, 35 IPOs provide return between 0% to 10%, 17 IPOs provide return between 11% to 30% while 14 companies give negative return. In 2017, 60 IPOs provide return between 0% to 10%, 42 IPOs provide return between 11% to 30%, 3 companies give return above 100% while 26 companies give negative return. In 2018, 83 IPOs provide return between 0% to 10%, 27 IPOs provide return between 11% to 30% , 2 IPOs give return between 50% to 100% while 14 companies give negative return. In 2019, 37 IPOs provide return between 0% to 10%, 4 IPOs provide return between 11% to 30%, whereas 9 companies give negative return. In 2020, 22 IPOs provide

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return between 0% to 10%, 1 IPOs provide return between 11% to 30%, whereas 8 companies give negative return. In 2021, 26 IPOs provide return between 0% to 10%, 9 IPOs provide return between 11% to 30% , 3 IPOs give return between 31% to 50%, 3 IPOs give return above 100% while 15 companies give negative return. In 2022, 31 IPOs provide return between 0% to 10%, 15 IPOs provide return between 11% to 30%, 14 IPOs give return between 31% to 50%, 22 IPOs give return between 50% to 100% and 8 IPOs give return above 100% while 19 companies give negative return. In 2023, 49 IPOs provide return between 0% to 10%, 33 IPOs provide return between 11% to 30% , 19 IPOs give return between 31% to 50%, 33 IPOs give return between 50% to 100% and 17 IPOs give return above 100% while 31 companies give negative return. It is observed that from 2021 a shift in the return is seen with most of the companies are giving higher return than the IPOs prior to 2021. This can be due to the increase awareness and knowledge among the investors and increaseparticipation of retail investors the primary market. Overall IPOs in the SME segment are found to be performing well in India during the period with increasing listing day gains of the investors in the recent years.

Table 3: Year wise overall Return generated by IPOs of Small and Medium Enterprises in Indian Stock Exchanges during the study period

Year	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Maximum	54.00%	26.80%	181.67 %	64.35%	16.42%	16.50%	311.40 %	229.16 %	258.16 %
Minimum	- 28.00%	- 20.00%	- 20.00%	- 28.75%	- 14.50%	- 23.21%	- 24.00%	- 47.50%	- 24.00%
Average	6.33%	5.51%	9.81%	4.44%	2.32%	0.90%	14.70%	32.10%	36.42%

Figure 2: Year wise overall Return generated by IPOs of

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Small and Medium Enterprises in Indian Stock Exchanges during the study period

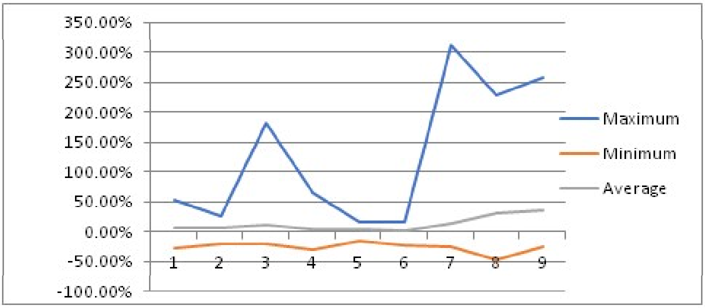

Table 3 and Figure 2 show the return generated by IPOs in of Small and Medium Enterprises in India during the study period. It is found that the maximum return from a single IPO in a year is 311% in 2021 followed by 258% in 2023 and 229% in 2022 by Vivo Collaboration Solutions Ltd, Goyal Salt Limited and Phantom Digital Effects Limited respectively. While the lowest return of a IPO is 47.50% in the year 2021 by Bhatia Colour Chem Limited. Considering the year wise average return of IPOs in all the years it is found to be in positive side with highest average return of 36.42% in the year 2023 and lowest in the year 2020 i.e. 0.90%. Overall the IPOs of SMEs have provided positive return to the investors in the listing day although the average return is found to be in lower side. The return generated by IPOs on listing day has increased in the recent years.

Conclusion

Initial Public offering allows a corporate to go public by selling their shares in the primary market. The SMEs are also

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found to be participating it the primary market to raise fund successfully from the investors. The investors are mostly looking at IPOs to make quick return in the form of listing day gain. Different Corporates going public in the recent time have given handsome return to its investors which has increased the participation of retail investors in the primary market. In this context the present study is conducted to analyse the IPOs offered by SMEs to find out how they have performed in the listing day. A period of 9 years from 2015 to 2023 is considered and all the SMEs who are successful in raising fund through IPOs are considered. The study reveals that in most of the cases the SMEs opting for IPOs have able to generate listing gain to its investors. It is found that in the recent years the quantum of gain has also increased in comparison to earlier periods. Thus it can be said that IPOs of SMEs are performing well in the market and investors can make good short term profit by investing in IPOs, however proper analysis of the economic condition, factors like performance of the company going for IPOs, issue size, price of the offering, premium has to be done.

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Investing in the New Millennium
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ETHICS IN INVESTMENT: A COMPREHENSIVE ANALYSIS

✍Supriya Bora

ABSTRACT

This article examines the ethical dimensions of investment, focusing on integrating environmental, social, and governance (ESG) factors. It explores ethical theories such as utilitarianism, deontology, and virtue ethics, and outlines principles including environmental responsibility, social equity, and governance. The article discusses challenges like measuring ESG factors, conflicts of interest, and balancing financial returns with ethical considerations. Through case studies of Generation Investment Management, Patagonia, and the Norwegian Government Pension Fund, it illustrates practical applications of ethical investment. The article also discusses future trends such as impact investing, technological innovation, and enhanced regulatory frameworks, underscoring the growing importance of ethical investment in fostering sustainability and social justice.

Keywords: *Ethics, Investment*

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Introduction

Investment plays a pivotal role in the global economy, serving as a primary engine for growth, innovation, and wealth creation. Through the allocation of capital to various sectors, investment fuels business expansion, technological advancements, and job creation, contributing to overall economic development. However, alongside these benefits, investment also poses significant ethical concerns that cannot be overlooked. The decisions made by investors can have profound implications for society and the environment, influencing everything from community well-being to ecological sustainability.

One major ethical concern in investment is the impact on society. Investment decisions can affect labor practices, human rights, and social equity. For instance, investing in companies with poor labor practices or those that exploit vulnerable populations can perpetuate social injustice and inequality. Additionally, investments can shape community development, determining whether resources are allocated in ways that benefit local populations or exacerbate social disparities.

Environmental considerations are equally crucial. Investments in industries with high carbon footprints or those that deplete natural resources can contribute to climate change and environmental degradation. Ethical investment practices necessitate a careful evaluation of how capital allocation affects the planet, advocating for investments in sustainable and eco-friendly projects [1].

Transparency and accountability are also key ethical issues in the investment realm. Investors must navigate the complexities of financial markets with integrity, ensuring that their practices are transparent and that they are accountable to stakeholders. This includes honest reporting, avoiding conflicts

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of interest, and ensuring fair treatment of all parties involved. This article aims to delve into these ethical dimensions of investment, providing a comprehensive examination of the principles that should guide ethical investment practices.

Literature Review

Theoretical Foundations of Ethical Investment

Ethical investment, also known as socially responsible investment (SRI) or sustainable investment, integrates environmental, social, and governance (ESG) factors into investment decisions [2]. The theoretical foundations of ethical investment can be traced back to various ethical theories and philosophical traditions.

Utilitarianism, as articulated by philosophers like Jeremy Bentham and John Stuart Mill, advocates for actions that maximize overall happiness or utility. In the context of investment, a utilitarian approach would prioritize investments that contribute to the greatest good for the greatest number of people, such as those in renewable energy, healthcare, and education, which have broad societal benefits. By focusing on the outcomes of investments, utilitarianism encourages investors to consider the wider impact of their financial decisions and to allocate resources in a manner that promotes overall well-being. In contrast, deontological ethics, associated with Immanuel Kant, focuses on adherence to moral rules or duties. From a deontological perspective, ethical investment involves principles like honesty, transparency, and fairness. Investors have a duty to consider the impact of their investments on stakeholders and to avoid investments in companies or industries that engage in harmful or unethical practices, emphasizing the importance of moral obligations and the necessity of following ethical guidelines

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regardless of the consequences. Lastly, virtue ethics, rooted in Aristotle's works, emphasizes the importance of moral character and virtues such as integrity, prudence, and responsibility. Ethical investors, according to virtue ethics, should cultivate these virtues and make investment decisions that reflect a commitment to ethical principles and the well-being of society, highlighting the role of the investor's character and the importance of developing and maintaining virtuous habits rather than focusing solely on the outcomes or rules [3].

Key Principles of Ethical Investment

Ethical investment is guided by several key principles that reflect the integration of ethical theories into practical investment strategies.

Environmental Responsibility

Environmental responsibility is a cornerstone of ethical investment. Investors are increasingly recognizing the importance of addressing environmental issues such as climate change, pollution, and resource depletion. Ethical investors seek to minimize the environmental impact of their investments by prioritizing companies and projects that adopt sustainable practices and contribute to environmental conservation [4].

Social Equity

Social equity involves promoting fairness and justice within society. Ethical investors consider the social implications of their investments, including the impact on workers, communities, and consumers. This principle includes avoiding investments in companies that exploit labor, engage in discriminatory practices, or harm local communities. Instead, ethical investors support businesses that promote social welfare, human rights, and equitable economic development [5-6].

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Governance and Accountability

Good governance and accountability are essential for ensuring that companies operate transparently and ethically. Ethical investors evaluate the governance structures of companies, including their leadership, board composition, and policies on issues such as executive compensation, corruption, and shareholder rights. Companies with strong governance practices are more likely to act in the best interests of their stakeholders and maintain ethical standards.

Challenges in Ethical Investment

While the principles of ethical investment are clear, implementing them in practice presents several challenges. These challenges include the difficulty of measuring and comparing ESG factors, the potential for conflicts of interest, and the need for balancing financial returns with ethical considerations [7].

Measuring and Comparing ESG Factors

One of the primary challenges in ethical investment is the lack of standardized metrics for measuring and comparing ESG factors. Different rating agencies and organizations use varying criteria and methodologies, leading to inconsistencies and potential confusion among investors. For example, a company might receive a high environmental rating from one agency but a low rating from another, depending on the criteria used. This lack of standardization makes it difficult for investors to make informed and consistent ethical investment decisions.

Conflicts of Interest

Conflicts of interest can arise when the interests of different stakeholders are not aligned. For example, an investment that benefits shareholders by generating high returns might harm employees or the environment. Ethical investors must navigate these conflicts and make decisions that balance

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the interests of all stakeholders. This often requires difficult trade-offs and a commitment to long-term rather than short-term gains.

Balancing Financial Returns with Ethical Considerations

A common misconception about ethical investment is that it necessarily involves sacrificing financial returns. While there is evidence to suggest that companies with strong ESG practices can outperform their peers over the long term, there may be instances where ethical considerations limit investment opportunities or result in lower short-term returns. Ethical investors must balance their desire for financial performance with their commitment to ethical principles, which can be challenging in a competitive market environment [8].

Case Studies in Ethical Investment

To illustrate the practical application of ethical investment principles and the challenges involved, this section presents several case studies of companies and investment funds that have successfully integrated ESG factors into their investment strategies.

Case Study 1: Generation Investment Management

Generation Investment Management, founded by former U.S. Vice President Al Gore and financier David Blood, is a leading example of an investment firm committed to sustainable and ethical investment. The firm integrates ESG factors into its investment analysis and decision-making processes, focusing on long-term sustainability. Generation's approach has demonstrated that it is possible to achieve strong financial returns while adhering to ethical principles. The firm's success has helped to raise awareness of the potential benefits of sustainable investment and has inspired other investors to adopt similar practices.

Case Study 2: Patagonia

Patagonia, a company known for its environmental

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activism and commitment to sustainability, provides another compelling example of ethical investment. The company has implemented numerous initiatives to reduce its environmental footprint, including using recycled materials, promoting fair labor practices, and donating a portion of its profits to environmental causes. Patagonia's commitment to ethical principles has not only enhanced its brand reputation but also attracted a loyal customer base and driven financial success.

Case Study 3: The Norwegian Government Pension Fund

The Norwegian Government Pension Fund, one of the world's largest sovereign wealth funds, has adopted a comprehensive ethical investment strategy. The fund's ethical guidelines prohibit investments in companies involved in activities such as human rights abuses, severe environmental damage, and corruption. The fund also engages in active ownership, using its influence as a shareholder to promote ethical practices and improve corporate governance. The Norwegian Government Pension Fund's approach demonstrates how large institutional investors can integrate ethical considerations into their investment strategies and drive positive change.

Future Directions in Ethical Investment

The field of ethical investment is continually evolving, driven by emerging trends, technological advancements, and changing societal expectations. This section explores several key trends and future directions in ethical investment.

Impact Investing

Impact investing is an emerging trend that focuses on generating measurable social and environmental impacts alongside financial returns. Impact investors seek to address specific social or environmental challenges, such as poverty, education, or climate change, through their investments. This

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approach goes beyond traditional ethical investment by explicitly targeting positive outcomes and measuring their impact. Impact investing is gaining traction as investors increasingly recognize the potential to achieve both financial and social goals [9].

Technological Innovation

Technological innovation is playing a significant role in advancing ethical investment. Big data, artificial intelligence, and blockchain technology are being used to enhance ESG data collection, analysis, and reporting. These technologies enable more accurate and efficient assessment of ESG factors, improving transparency and helping investors make more informed ethical investment decisions. For example, AI algorithms can analyze vast amounts of data to identify ESG risks and opportunities, while blockchain can provide secure and transparent tracking of supply chains and corporate practices.

Enhanced Regulatory Frameworks

As the importance of ethical investment continues to grow, there is a push for enhanced regulatory frameworks to support and standardize ESG practices. Governments and regulatory bodies are increasingly implementing policies and regulations that promote sustainable and ethical investment. For instance, the European Union's Sustainable Finance Disclosure Regulation (SFDR) requires financial market participants to disclose how they integrate ESG factors into their investment decisions. Such regulatory initiatives aim to create a level playing field, improve transparency, and ensure that ethical considerations are consistently applied across the investment industry [10].

Conclusion

Ethical investment represents a critical and growing dimension of the global investment landscape. By integrating environmental, social, and governance factors into investment decisions, ethical investors can contribute to sustainable development, promote social justice, and drive positive change. However, the implementation of ethical investment principles presents significant challenges, including the need for standardized ESG metrics, the management of conflicts of interest, and the balancing of financial returns with ethical considerations.

Case studies of organizations like Generation Investment Management, Patagonia, and the Norwegian Government Pension Fund illustrate the practical application of ethical investment principles and the potential for positive impact.

Looking to the future, emerging trends such as impact investing, technological innovation, and enhanced regulatory frameworks will continue to shape the field of ethical investment. As the global community increasingly recognizes the importance of sustainability and ethical responsibility, ethical investment will play a pivotal role in building a more just and sustainable world.

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G20 AND ITS INVESTMENT STRATEGY IN NORTH EAST REGION: A DESCRIPTIVE ANALYSIS

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ABSTRACT

This study examines the impact of G20 investment strategy on the development of the Northeast region of India. It explores how G20 initiatives and frameworks have influenced investment in this strategically significant yet economically weak region. The study analysis the arrangement of regional policies with G20 principles, evaluates the effectiveness of these policies, and discusses future prospects for increasing the investment flows into Northeast India.

Introduction:

The G20, or Group of Twenty, is an international forum for governments and central bank governors from 19 countries and the European Union. Its primary focus is on global economic governance, international financial stability, and sustainable

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development. Regarding investment policies in Northeast India the G20 doesn't directly formulate or implement investment policies for this specific region. However, the discussions and agreements made during G20 summits can influence national policies and international cooperation, which may indirectly affect investment in regions like Northeast India. India's government has been focusing on the development of the Northeast region through various initiatives. These include infrastructure development, improving connectivity, and promoting investment to boost economic growth. International cooperation and investment are often encouraged through bilateral agreements and national policy initiatives rather than directly through G20 mandates. Specific policies aimed at promoting investment in Northeast India include.

India is utilizing its G20 presidency to showcase the NER of the country & its diverse cultures, captivating geography and vibrant heritage. India plans to hold more than 200 G20-related meetings across the country, with some of these meetings taking place in the North East region. This will provide an opportunity for India to draw attention from around the world and expand the tourism industry, resulting in more employment opportunities, connectivity, economic growth and cultural exchange. The Union Government is investing heavily in the infrastructure development of the region, including initiatives such as the Pradhan Mantri Gati Shakti Master Plan, Destination North East India campaign and programmes like PM-Dev INE and Parvatmala aim to support social development and increase connectivity. This study aims to highlight the influence of G20 investment policies and its strategies on the region's development, particularly in infrastructure, connectivity, and sustainable growth.

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Glimpses of the Northeast Region of India:

The Northeast region consists of eight states such as Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. It is a predominantly agrarian region. The region has rich natural resources, including forest resources, mineral resources like oil, natural gas, coal, and hydropower potential. The North east holds strategic importance and geopolitical importance because it is the Bordering of China, Myanmar, Bhutan, and Bangladesh.

Objectives of the study:

The study examines the G20 and its investment strategies in Northeast region of the country.

Methodology:

The study is a descriptive in nature. The secondary source of data collection has been used in the study.

Discussion:

Investment Strategies in Northeast India:

The NER might be one of the less developed regions of India, but it possesses huge potential in several industries and sectors. With peace established in the region, the government is also putting increasing emphasis on encouraging growth in the NER. In the last two decades, economic growth in the NER has been impressive, with an annual growth rate in excess of 8 percent. The movement towards more productive industries plays a large part in this. The G20's plays an important role in shaping investment policies in NER.

Policy Coordination: The forum facilitates coordination among member countries to foster stable and sustainable economic growth. It plays an important role in shaping and strengthening global architecture and governance on all major international economic issues.

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Investment Principles: G20 gives importance on growth and development through implementing investment principles. It promotes principles such as openness, transparency, and non-discrimination in investment policies. The aim of pursuing quality infrastructure investment is to maximize the positive economic, environmental, social and development impact of infrastructure and create a virtuous circle of economic activities, while ensuring sound public finances.

Infrastructure Investment: It advocates for increase investment in infrastructure to drive economic growth, particularly in underdeveloped regions.

Sustainable Development: G20 emphasizes the need for sustainable and inclusive development practices.

Here are some ways in which G20 principles and member countries can contribute to the development of India's North East.

Infrastructure Development: G20 member countries can invest in infrastructure projects in the North East, including road, rail, and air connectivity, to enhance regional integration and economic growth.

Sustainable Development: G20's focus on sustainable development aligns with the ecological sensitivities of the North East region. Investments in renewable energy, sustainable agriculture, and conservation projects can support regional development.

Private Sector Investment: Encouraging private sector investment from G20 countries can lead to the development of industries such as tourism, information technology, and manufacturing in the North East.

Technical Assistance and Capacity Building: G20 nations can provide technical assistance and capacity building support

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to improve governance, skill development, and entrepreneurial activities in the North East.

Bilateral and Multilateral Cooperation: G20 provides a platform for bilateral and multilateral cooperation. Partnerships and collaborations can be formed to address specific development needs of the North East region. While the G20 itself does not directly implement regional investment strategies, the principles and collaborations fostered by the G20 can significantly impact investment and development in India's North East region.

North East Industrial Development Scheme (NEIDS): It aims to promote industrialization by providing various incentives for investments. This scheme offers various incentives to investors in the region, including subsidies on capital investment, interest on working capital and reimbursement of goods and services tax (GST).

Act East Policy: G20 focuses on enhancing connectivity and economic cooperation, cultural ties and strategic relationships with countries in the Asia-Pacific region through bilateral and multilateral agreement for the enhancement of investment environment. By focusing on these areas the policy aims to transform the North East region into a gateway to Southeast Asia, leveraging its geographical and cultural proximity to the region.

Infrastructure Development and Improved Connectivity: Another remarkable development is that some projects like the Bharatmala Pariyojana and North East Road Sector Development Scheme aim to improve infrastructure with connectivity. It also gives importance to enhance road, rail, and air connectivity in the region to attract businesses and tourists.

Special Economic Zones (SEZs): Establishment of SEZs to

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attract foreign and domestic investment. Establishment of SEZs to provide a business-friendly environment with tax incentives and other benefits. International investors and organizations may be influenced by the broader economic policies discussed in the G20, such as trade agreements, financial regulations, and sustainable development goals, which can create a favorable environment for investment in Northeast India.

Impact of G20 on Investment in Northeast India

Alignment with G20 Principles: The Union Government tries to identify the basic ways to develop in the region. Regional policies increasingly align with G20 principles, promoting transparency and openness in investment.

Infrastructure Projects: G20's emphasis on infrastructure investment has supported projects in the region, improving connectivity and logistics.

Sustainable Development Goals (SDGs): G20's focus on sustainable development aligns with regional efforts to promote eco-friendly practices and inclusive growth.

Capacity Building and Technical Assistance: G20 initiatives provide technical assistance and capacity-building programs to enhance local governance and investment facilitation.

Challenges:

Geopolitical Issues: Geopolitical issues have been playing a significant role in the North East Region because NER is situated in the international boundary of several countries. Proximity to international borders presents security challenges that can deter investment.

Infrastructure Gaps: Lack of infrastructure is the basic challenge of the development in the region. Despite progress, significant gaps in infrastructure remain a barrier to economic development.

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Regulatory Hurdles: Bureaucratic red tape and regulatory challenges hinder the smooth flow of investment.

Skill Development: The region faces a mismatch between the skills of the workforce and the needs of industries, affecting productivity and investment appeal.

Future Prospects

Improved Connectivity: Continued investment in connectivity projects to link the region more effectively with the rest of India and neighboring countries.

Green Investment: Promoting investments in sustainable and eco-friendly projects, leveraging the region's rich natural resources.

Digital Economy: Encouraging investment in digital infrastructure to bridge the digital divide and foster innovation.

Regional Cooperation: Strengthening regional cooperation within G20 frameworks to attract investment and boost economic growth.

Conclusion

The G20 has played a significant role in shaping investment policies that impact the Northeast region of India. While the alignment with G20 principles has facilitated progress, ongoing efforts are needed to address challenges and fully leverage the region's potential. By continuing to align regional policies with G20 frameworks and focusing on sustainable and inclusive development, Northeast India can attract more investment and achieve substantial economic growth.

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A STUDY ON ADOPTION OF DIGITAL PAYMENT AMONG GENERATIONS X, Y, AND Z IN KAMRUP METRO DISTRICT OF ASSAM

✍Rejeena Begum

ABSTRACT

As the global landscape undergoes a paradigm shift towards digital transactions, comprehending the nuanced factors influencing adoption becomes imperative. Despite this pervasive trend, discernible variations persist among age groups, necessitating targeted investigations. The economic, cultural, and political intricacies inherent in urban centers further accentuate the need for a tailored exploration of digital payment adoption. This research bridges existing gaps in literature by meticulously unraveling the complex web of factors shaping the intention to use and adopt digital payment methods across multiple generations. Through a comprehensive quantitative analysis of a diverse sample, this study evaluates digital payment adoption among distinct generational cohorts in Kamrup Metro, Assam.The findings underscore the significance of habit, social influence, trust, perceived ease of use (PEOU), and perceived

usefulness (PU) as pivotal factors influencing the intention to use digital payments

Keywords : Digital Payment, generation X,Yand Z, Adoption

Introduction :

Digital payment, encompassing electronic transactions facilitated through credit or debit cards, online banking, and mobile payment apps, has evolved into a pivotal aspect of modern-day society in the 21st century (Patil et al., 2020). The transformative impact of mobile payment systems (MPS) has made them not only convenient, fast, and secure but also cost-effective, streamlining transactions on a global scale (Salloum et al., 2019). India has experienced a noteworthy surge in digital payments adoption, underscoring substantial growth in recent years (NASSCOM, 2020).

The COVID-19 pandemic has instigated significant shifts in economic activity and consumer behavior, particularly in the rapid escalation of digital payments (Zwanka& Buff, 2021). This trend presents a distinctive opportunity for businesses, including banks, to expand services and attract a broader customer base. Therefore, exploring the behavioral and psychological aspects of this phenomenon is crucial for comprehending the motivations and preferences that drive consumer adoption (Patil et al., 2020). Insights gained from such research can empower businesses to design more effective promotional strategies, enhancing their competitiveness in the marketplace (Rosário & Raimundo, 2021). Table 1 outlines various types of digital payments prevalent in India.

According to recent statistics, India boasts a substantial mobile phone user base, with around 1 billion individuals using

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mobile phones and 530 million utilizing smartphones in 2018(de la Torre, Torralba, & Rivera, 2018). The internet user count in India reached 300 million, with approximately half of them engaging in mobile payment platforms such as Gpay and Phonepe. This surge in usage underscores the pivotal role of digital payment technologies in India's evolving economic landscape (Singh, Sinha & Cabanillas, 2020).

As consumer behavior continues to transform dynamically over time, studying these changes becomes imperative. The digital era has witnessed a paradigm shift in how individuals perceive and engage with financial transactions. Understanding the evolving preferences and habits of consumers, especially in the context of digital payments, holds immense significance. This study aims to explore the nuanced shifts in consumer behavior over time, particularly as it pertains to the adoption of digital payment methods among different age groups..

Therefore, Understanding the dynamics of Generation X, Y, and Z (GenX, GenY, and GenZ) is crucial, as these cohorts exhibit distinct behaviors, shaped by unique socio-economic contexts. Born between the mid-1960s and early 1980s, Generation X is known for independence and adaptability, navigating a time of profound economic and social change (Glazer, Mahoney, & Randall, 2018).Generation Y, often referred to as Millennials, encompasses individuals born from the early 1980s to the mid-to-late 1990s. Recognized for being tech-savvy and optimistic, Millennials grew up amid rapid technological change and globalization (Ebeling, Dent, & Kempenich, 2020).Generation Z, born between the mid-1990s and the early 2010s, represents digital natives characterized by inclusivity, diversity, and social consciousness, having come of age in the

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era of social media, smartphones, and the internet (Samler & Ciobanu, 2020). Table 2 provides a reference guide for these generational classifications.

Generational Classifications

Generations	Year Born	Reference
GenX (Baby Boomers)	Mid-1960s and Early 1980s	Glazer, Mahoney, & Randall, 2018
GenY (Millennials)	Early 1980s and Mid-to-late 1990s	Ebeling, Dent, & Kempenich, 2020
GenZ	Mid-to-late 1990s and Early 2010s	Samler & Ciobanu, 2020

While existing research offers insights into digital payment adoption in India, there is a dearth of studies specific to Assam, India, and inconsistencies in findings persist. Hence, further research in this region is imperative to unravel the factors influencing digital payment adoption among different generations.

LITERATURE REVIEW:

Gurunathan and Lakshmi (2023) conducted focus group discussions among Generation X, Y, and Z, utilizing NVivo for thematic analysis. Their qualitative approach revealed significant differences in perceptions, identifying GenX as digital migrants, GenY as digital natives, and GenZ as mobile natives. The study emphasized the necessity for businesses to tailor digital marketing strategies to each generation, suggesting an omni-channel approach for effective engagement. The authors underscored the evolving dynamics and varied perceptions of each generation. Alt and Agárdi (2023) explored the relationship between Generation Z's acceptance of NFC m-payment and loyalty towards retailers. Findings from their online survey indicated that the intention to use NFC m-payment significantly contributed to loyalty intentions. Key factors influencing acceptance included

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usefulness, enjoyment, social influence, and compatibility with lifestyle. The study highlighted the importance of retailers communicating m-payment availability to influence store patronage.

Purohit, Kaur, and Chaturvedi (2022) aimed to comprehend the elements influencing Generation Z users' adoption of mobile payments in emerging nations. The questionnaire-based data collection revealed positive impacts of social influence, performance expectations, and effort expectations on the intention to use mobile payments. The study suggested marketers use these findings to develop suitable strategies for sustainable mobile payment adoption by Generation Z customers in developing countries.

Xu, Ghose, & Xiao (2023) investigated consumer consumption behaviors in the context of mobile payment adoption, the study utilized data from one of China's largest banks. Higher service demand and local penetration were associated with earlier adoption of Alipay. The study highlighted Alipay's role as a substitute for offline channels and a complement to PC payment channels, with effects intensifying over time.

Chotai et al. (2023)examined the utilization of digital payments within the student community in India. Focused on students in Kolkata and nearby regions, the investigation shed light on the awareness levels and anticipated trends in digital payment adoption among young individuals. The findings underscored the influential role of innovations and digital platforms, notably Google Pay, in steering the country toward a cashless economy.

Dimitrova (2023) delved into the dynamics of digital payment adoption among Swedish bank customers, the study identified privacy and access barriers as significant factors for

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adopters-accepters (AAs) and adopters-resisters (ARs). Both groups recognized credibility as a crucial barrier-breaker.

Ramírez-Correa et al. (2023) explored the acceptance of social networking sites (SNS) among the elderly in post-pandemic Chile, employing the UTAUT2 and TRI models. The research highlighted the significance of psychographic characteristics over demographics in understanding technology adoption among older individuals.

Agárdi and Alt (2022) examined mobile payment acceptance, the research integrated generational cohorts, offering theoretical insights and emphasizing business implications for targeted marketing strategies. The study highlighted differences between digital immigrants and digital natives in their considerations for acceptance.

Rosli et al. (2023) analysed Generation Z's acceptance of e-wallets, merging the Technology Acceptance Model with Self-Determination Theory. Key findings highlighted the substantial impact of External Regulation, Self-Efficacy, and Digital Media Self-Efficacy on shaping e-wallet acceptance.

Rahadi et al. (2022) focused on e-payment usage, utilizing a cross-sectional survey method. Limitations included concerns about the applicability of findings across cultures and the restriction of potential generalizations due to a specific user setting at a particular time.

Wang et al. (2023) investigated Generation X's resistance to cashless payments in Malaysia, the study employed the Innovation Resistance Theory. The research identified key barriers like usage, tradition, and image, revealing a significant positive link with resistance.

Sholihahand Ariyani (2023) evaluated factors influencing Generation Z's sustained digital payment usage post-COVID-

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19, the research anchored in ECM and TAM. The research enhanced understanding of Generation Z's cashless preferences, emphasizing mobile payment app developers to prioritize usability and satisfaction.

The existing literature on digital payment adoption, particularly in the context of Assam, India, reveals several noteworthy research gaps. Primarily, there is a pervasive limited focus on different generational populations, with many studies predominantly concentrating on specific age groups such as baby boomers or millennials, neglecting the nuances among other generational cohorts. Additionally, the literature overlooks the crucial aspect of financial literacy, a significant concern in a geographically diverse state like Assam, where limited digital infrastructure and connectivity coexist with relatively low financial literacy levels.

THEORETICAL FRAMEWORKS:

TECHNOLOGY ACCEPTANCE MODEL (TAM)

The "Technology Acceptance Model" (TAM) is a widely recognized theoretical framework that assists in predicting and understanding the acceptance of technology by users. The two most important criteria influencing whether a user will accept a technological product are perceived usefulness (PU) and perceived ease of use (PEOU) (Davis, 1989). While perceived ease of use gauges how simple a user believes a technology is to use, perceived utility evaluates how much a technology is regarded to boost a user's performance. According to Silva (2015), TAM has been used in numerous studies to examine consumer acceptance and adoption of various technologies, including social media, mobile apps, and e-commerce platforms. TAM has been used in several research to examined the factors affecting India's adoption of digital payment methods. Venkatesh

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et al. (2012) used TAM to study the factors that influence mobile payment service uptake in India. According to their findings, PU, PEOU, and perceived credibilityof mobile payment services were significant factors influencing the ITU them. Singh and Srivastava (2019) examined the use of online payment methods among Indian consumers using TAM. According to their findings, perceived utility and PEOU were key factors influencing consumer acceptance of digital payments. Moreover, the study highlighted that perceived risk (PR) and trust played crucial roles in shaping the utilization of digital payment services among Indian consumers.

The studies discussed above suggested that TAM can be an effective method for forecasting and comprehending user acceptance of DSP in India. The establishment of effective approaches to encourage the use of DSP in India can be achieved by policymakers and financial institutions taking into account variables including PEOU, PU,credibility, trust, and PR. Additionally, understanding the factors that influence adoption can help identify areas for improvement and guide the development of more user-friendly and secure digital payment systems in the future.

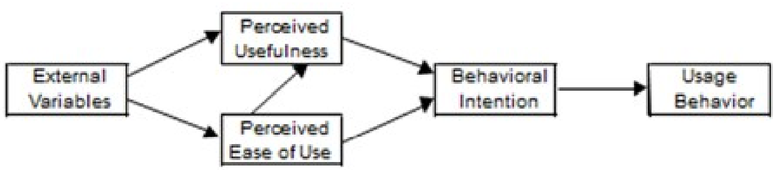

Figure 1: TAM (Davis and Venkatesh, 1996)

UTAUT:

Venkatesh et al. (2003) established the "Unified Theory of Acceptance and Use of Technology" (UTAUT) by integrating

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numerous previous theories such as TAM, TRA, and TPB. The goal of UTAUT is to identify the elements that affect how technology is embraced and applied in various situations. "Anticipated effort, expected performance, social impact, and facilitating conditions" make up the model's four key concepts. Performance expectancy is a measure of how valuable a technology is thought to be, whereas effort expectancy is a measure of the usability. Social impact refers to outside variables like what other people believe, whereas facilitating conditions are the tools and assistance needed to use the technology.

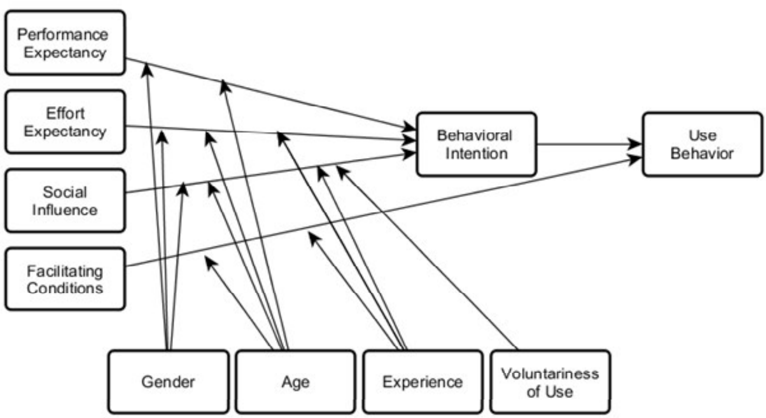

Figure 2: UTAUT Source: **Venkatesh et al., 2003**

UTAUT have been used to describe how different technologies are adopted and used, such as mobile applications, social media platforms, and enterprise resource planning systems. For instance, many studies have employed UTAUT to look at the elements that affect the uptake and application of mobile payment solutions (Abdat, 2020); (Puriwat, & Tripopsakul, 2021). According to Slade et al. (2015), two primary factors

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that had a substantial impact on the adoption of MPS were performance expectancy and effort expectancy. Additionally, the study showed that social influence and facilitating conditions indirectly influenced users' intention by affecting these two primary factors.

RATIONALE OF THE STUDY

This study's objective is to obtain a comprehensive understanding of the factors influencing the adoption of digital payments among individuals belonging to different generations, including Gen X, Y, and Z. The study aims to investigate the attitudes, perceptions, and experiences of individuals towards digital payments to achieve this objective. The study will take place in Assam, India. The study will focus on various aspects such as "the ease of use, security, trust, cost, and accessibility" of digital payment methods. This forms the 1st research question,

RQ1: What are the factors that influence individuals' intention and usage behavior of digital payment methods, and how do these factors vary across different age groups/generations (Gen X, Y, Z) in Kamrup Metro, India?"

This research question aims at identifying the key factors driving the adoption of digital payment methods among different generations in Kamrup Metro, Assam, India, and understanding how these factors vary across different generations

RQ2: To what extent do demographic, economic, and cultural factors impact the adoption of digital payment methods among different generations (Gen X, Y, Z) in Kamrup Metro, India, and how can these factors be leveraged to promote greater adoption of digital payment methods in the region?

AIM OF THE STUDY

The study's aim is to analyse the factors driving the adoption of digital payment usage among multi generation

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consumers ("Gen X, Gen Y, and Gen Z") in Kamrup metro District of Assam.

OBJECTIVES OF THE STUDY:

- To study the effect of demographic variables, on the intention to adopt digital payment among users of different generations (Gen X, Y, Z) in Kamrup Metro District of Assam.
- To analyse at what extent do economicfactors impact the adoption of digital payment methods among different generations (Gen X, Y, Z) in Kamrup Metro District of Assam.
- To determine the impact of Habit on the intention to adopt digital payment among users of different generations (Gen X, Y, Z)in Kamrup Metro, India.
- To analyse at what extent do social influence impact the adoption of digital payment methods among different generations (Gen X, Y, Z) in Kamrup Metro District of Assam

PROPOSED CONCEPTUAL FRAMEWORK:

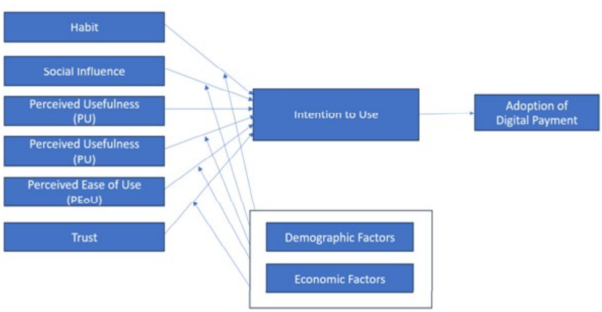

Figure 3: Proposed Conceptual Framework

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The study aims to develop a framework that can identify the factors influencing people's preference for digital payments across different age groups. The proposed framework is composed of five significant constructs: "habit, perceived usefulness, social influence, perceived ease of use, trust", towards the digital payment adoption behavior. These concepts will be utilized to examine and evaluate the different elements influencing the acceptance and utilization of digital payment modes across various age demographics. Furthermore, the study will evaluate how users' demographic characteristics can impact their adoption and use of digital payment methods.

- Habit refers to the automatic response or behavior that individuals exhibit towards using digital payment methods(Limayem, Hirt, & Cheung, 2007).
- Social influence studies how social networks and peers affect a person's decision to adopt digital payments (Liébana-Cabanillas, Sánchez-Fernández, & Muñoz-Leiva, 2014).
- Perceived ease of use pertains to the level of simplicity or complexity of utilizing digital payment methods (Nabila & Widodo, 2023).
- Perceived usefulness pertains to the perceived benefits associated with using such methods (Lee, 2009)
- Trust is the confidence an individual has in the security and reliability of digital payment methods (Yousafzai, Pallister, & Foxall, 2003)

Finally, 'digital payment adoption behavior' refers to the actual usage behavior of digital payment methods(Sahi et al., 2021). By exploring these constructs and their relationship with digital payment adoption behavior, the study aims to provide insights into how different age groups/generations view and use

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digital payment methods. The study will also examine how the different factors interact with each other to influence digital payment adoption behavior and whether these factors vary across different age groups/generations.

Thus, the proposed framework also includes three generations (Gen X, Y, Z) as variables, which will be used to explore whether the connection between the six factors and digital payment adoption differ across different age groups. To test the hypotheses and explore the connection between the variables, this study plan to obtain data from a sample of participants across the three age groups/generations. The study will use statistical techniques, such as multi-group analysis, to investigate the relationships between the independent variables of habit, social influence, perceived usefulness, perceived ease of use, and trust, and the outcome variable of digital payment adoption across different age groups and generations.

RESEARCH HYPOTHESIS

H1: Habit positively impacts the intention to use Digital Payment.

H2: Social influence significantly affects the intention to use Digital Payment in Kamrup Metro, India

H3: Perceived Usefulness significantly affects the intention to use Digital Payment in Kamrup Metro, India

H4: Perceived ease of use significantly affects the intention to use Digital Payment in Kamrup Metro, India

H5: Trust positively impacts the intention to use Digital Payment in Kamrup Metro, India

METHODOLOGY:

Employing a quantitative research approach, this study seeks to investigate the dynamics of digital payment adoption

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across diverse generational cohorts in Kamrup Metro District, Assam. Through a systematic stratified random sampling technique, primary data was collected from a representative sample of 384 participants, ensuring equitable representation from Gen X, Gen Y, and Gen Z, each comprising 128 individuals. The research instrument, a well-structured survey, utilized a 5-point Likert scale to assess key variables, including Habit, Social Influence, Perceived Usefulness, Perceived Ease of Use, Trust, Intention to Use, and Adoption. The research adhered to ethical guidelines, prioritizing participant confidentiality and obtaining informed consent. Additionally, the study ensured the robustness of its findings by conducting reliability and validity tests.The collected data is subjected to Multivariate Analysis of Variance (MANOVA) using the SPSS software for comprehensive statistical analysis.

DATA ANALYSIS

Table 1 Descriptive statistics

Variables		Frequency	Percent	Mean
Age	Gen X (born between 1965 and 1980)	128	33.3	
	Gen Y or Millennials (born between 1981 and 1996)	128	33.3	
	Gen Z (born between 1997 and 2012)	128	33.3	2.0000
	Total	**384**	**100.0**	
Gender	Male	195	50.8	1.4922
	Female	189	49.2	
	Total	384	100.0	
Marital status	Married	190	49.5	1.5052
	Unmarried	194	50.5	
	Total	**384**	**100.0**	
What is your high level of education	Diploma or equivalent	86	22.4	
	Under Graduate	100	26.0	

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	Bachelor's degree	105	27.3	2.5339
	Master's degree or higher	93	24.2	
	Total	**384**	**100.0**	
Income Monthly	< 35000	46	12.0	4.1345
	35000 – 70000	58	15.1	
	70000 – 100000	50	13.0	
	100000 – 150000	50	13.0	
	150000– 180000	62	16.1	
	180000 – 200000	60	15.6	
	> 200000	58	15.1	
	Total	**384**	**100.0**	
Occupation	Employed	92	24.0	2.4661
	Self-employed	103	26.8	
	Student	107	27.9	
	Others	82	21.4	
	Total	**384**	**100.0**	
Smartphoneisrequiredtousemobilepaymentservices	Yes	180	46.9	1.5313
	No	204	53.1	
	Total	**384**	**100.0**	
Time to useDigitalPayments	0-6	101	26.3	2.4635
	7-12	94	24.5	
	13-18	99	25.8	
	More than 18	90	23.4	
	Total	**384**	**100.0**	
How frequently do you use Digital Payments?	Daily / Multiple Times in a week	101	26.3	2.4896
	Monthly Once	96	25.0	
	Monthly Twice	85	22.1	
	Monthly Thrice	102	26.6	
	Total	**384**	**100.0**	
WhatisyourPrimaryReasonstouseDigitalPayments	Security	87	22.7	2.5911
	Easier access than cash	89	23.2	
	Easier to Track Transactions	102	26.6	
	Quick access to Account	106	27.6	
	Total	**384**	**100.0**	
Do you have internet connectivity?	Yes	184	47.9	1.5208
	No	200	52.1	
	Total	**384**	**100.0**	
Do you havecompetencyinhandlinginternetand transactions?	Yes	194	50.5	1.4948
	No	190	49.5	
	Total	**384**	**100.0**	
Are u aware of internet banking	Yes	183	47.7	
	No	201	52.3	
	Total	**384**	**100**	1.5234

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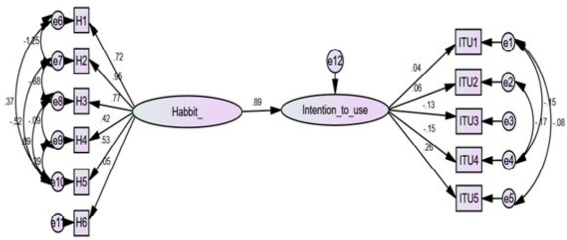
SEM ANALYSIS FOR HYPOTHESIS TESTING:

Proposed Hypothesis:

H1: Habit positively impacts the intention to use Digital Payment.

The hypothesis that habit positively impacts the intention to use digital payment is supported by the literature on technology adoption. Individuals tend to develop habits around technologies they use frequently, and this habitual behaviour is likely to influence their intention to use digital payment methods consistently in Kamrup Metro, India.



2 Regression Weights: (Group number 1 - Default model)

Path	Unstandardized Estimate	S.E.	Standardized Estimates	C.R.	P
Intention to use<---Habbit	.101	.096	.891	1.052	.023
H1<---Habbit	.734	.104	.721	7.048	***
H2<---Habbit	1.000	.138	.945	7.128	***
H3<---Habbit	.860	.143	.772	6.025	***
H4<---Habbit	.472	.108	.415	4.386	***
H5<---Habbit	.641	.180	.533	3.556	***
H6<---Habbit	.092	.099	.047	.935	.020
ITU1<---Intention touse	.588	1.001	.039	.588	.027
ITU2<---Intention to use	1.000	1.289	.060	.679	***
ITU3<---Intention to use	-2.178	2.235	-.128	-.974	.030
ITU4<---Intention to use	-2.489	2.346	-.149	-1.061	.019
ITU5<---Intention to use	4.191	4.000	.260	1.048	.025

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Table depicts a hypothetical structural equation model that show cases the interdependence between Two variables, namely the Habbitand Intention to use. In the present model, the independent variable is the Habbit, whereas the dependent variable is Intention to use. The findings of the investigation indicate a positive and statistically significant relationship between Habbitand Intention to use (?=.891, P<.05).

Table 3 Model fit summary

Variable	**Value**
Chi-square value(χ^2)	38.218
Degrees of freedom (df)	33
CMIN/DF	1.158
P value	0.244
GFI	.982
RFI	.908
NFI	.945
IFI	.992
CFI	.992
RMR	.044
RMSEA	.020

The quality of fit was acceptable representation of the sample data (?2 = 38.218), NFI (Normed Fit Index) =0.945; IFI (Incremental fit index) = 0.992, GFI (Goodness of Fit) = 0.982, RFI (Relative Fit Index) = 0.908 and CFI (Comparative Fit Index) =0.992 which is much larger than the 0.90. Similarly, RMR (Root Mean Square Residuals) =0.044 and RMSEA (Root mean square error of approximation) = 0.020 values are lower

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the 0.080 critical value. Results indicated a good fit for the model presented including RMSEA of 0.020, RMR of 0.044, GFI of 0.982, and CFI of .992.

H2: Social influence significantly affects the intention to use Digital Payment in Kamrup Metro, India

The relationship between social influence and the intention to use digital payment is likely to be significant in Kamrup Metro, India, as social factors play a crucial role in shaping individuals' attitudes and behaviors towards technology adoption. The influence of friends, family, and social networks can strongly impact an individual's decision to use digital payment methods.

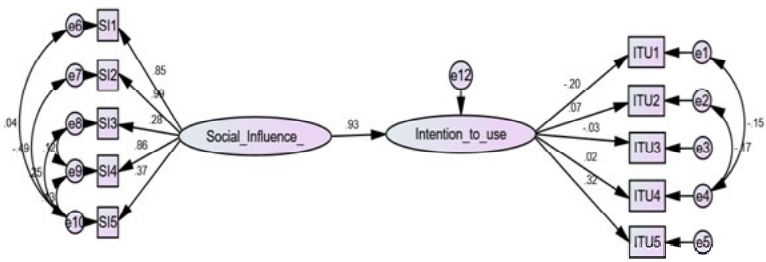

Table 4 Regression Weights: (Group number 1 - Default model)

Path	Unstandardized Estimate	S.E.	Standardized Estimates	C.R.	P
Intention to use<---Social Influence	.068	.056	.929	1.213	.025
SI1<---Social Influence	.852	.032	.846	26.392	***
SI2<---Social Influence	1.000	.041	.989	9.277	***
SI3<---Social Influence	.262	.047	.280	5.617	***
SI4<---Social Influence	.926	.034	.861	27.606	***
SI5<---Social Influence	.234	.083	.372	2.808	.005
ITU1<---Intention to use	-2.638	2.292	-.197	-1.151	.020
ITU2<---Intention to use	1.000	1.999	.067	-.678	***
ITU3<---Intention to use	-.471	.922	-.031	-.510	.010
ITU4<---Intention to use	.242	.878	.016	.275	.003
ITU5<---Intention to use	4.636	3.894	.322	1.191	.034

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Table depicts a hypothetical structural equation model that show cases the interdependence between Two variables, namely the Social Influenceand Intention to use. In the present model, the independent variable is the Social Influence, whereas the dependent variable is Intention to use. The findings of the investigation indicate a positive and statistically significant relationship between Social Influence and Intention to use (?=.929, P<.05).

The standardized coefficient of 0.929, a positive association between Social Influenceand Intention to use, as shown in the route connecting these two variables. The correlation coefficient values (C.R. values) show large magnitudes, suggesting that the observed associations are statistically significant. The fit indices indicate that the model has a good fit, since the factors exhibit statistical significance with p-values over 0.05 (as shown in Table 5). The total model fit was evaluated by using seven distinct fit indices, which together demonstrated a statistically significant positive association between Social Influenceand Intention to use.

Table 5 Model fit Summary

Variable	**Value**
Chi-square value(χ^2)	38.182
Degrees of freedom (df)	27
CMIN/DF	1.414
P value	0.075
GFI	0.981
RFI	0.947
NFI	0.968
IFI	0.990
CFI	0.990
RMR	0.054
RMSEA	0.033

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The quality of fit was acceptable representation of the sample data ($\chi2$ = 38.182), NFI (Normed Fit Index) =0.968; IFI (Incremental fit index) = 0.990, GFI (Goodness of Fit) = 0.981, RFI (Relative Fit Index) = 0.947 and CFI (Comparative Fit Index) =0.990 which is much larger than the 0.90. Similarly, RMR (Root Mean Square Residuals) =0.054 and RMSEA (Root mean square error of approximation) = 0.033 values are lower the 0.080 critical value. Results indicated a good fit for the model presented including RMSEA of 0.033, RMR of 0.054, GFI of 0.981, and CFI of .990.

H3: Perceived Usefulness significantly affects the intention to use Digital Payment in Kamrup Metro, India.

Perceived usefulness is expected to significantly affect the intention to use digital payment in Kamrup Metro, India. If individuals perceive digital payment methods as useful in facilitating their financial transactions and daily activities, they are more likely to express a positive intention to adopt and use such technologies.

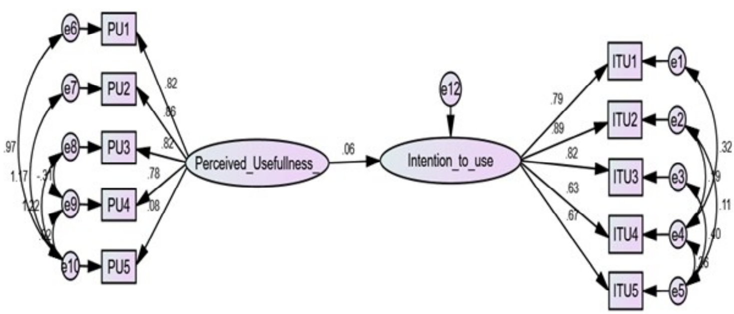

Table 6 Regression Weights: (Group number 1 - Default model)

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Path	Unstandardized Estimate	S.E.	Standardized Estimates	C.R.	P
Intention to use<---Perceived Usefulness	.061	.060	.058	1.020	.008
PU1<---Perceived Usefulness	1.047	.053	.822	19.762	***
PU2<---Perceived Usefulness	1.000	.057	.863	19.021	***
PU3<---Perceived Usefulness	1.119	.061	.823	18.389	***
PU4<---Perceived Usefulness	.939	.055	.779	16.926	***
PU5<---Perceived Usefulness	.100	1.135	.076	.088	.030
ITU1<---Intention to use	.945	.055	.789	17.056	***
ITU2<---Intention to use	1.000	.057	.887	17.374	***
ITU3<---Intention to use	1.072	.061	.816	17.583	***
ITU4<---Intention to use	.737	.057	.634	12.964	***
ITU5<---Intention to use	.814	.062	.665	13.036	***

Table depicts a hypothetical structural equation model that show cases the interdependence between Two variables, namely the Perceived Usefulnessand Intention to use. In the present model, the independent variable is the Social Influence, whereas the dependent variable is Intention to use. The findings of the investigation indicate a positive and statistically significant relationship between Perceived Usefulness and Intention to use (β=.058, P<.05).

The standardized coefficient of 0.058, a positive association between Social Influenceand Intention to use, as shown in the route connecting these two variables. The correlation coefficient values (C.R. values) show large magnitudes, suggesting that the observed associations are statistically significant. The fit indices indicate that the model has a good fit, since the factors exhibit statistical significance with p-values over 0.05 (as shown in Table 7).

Table 7 Model fit summary

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Variable	Value
Chi-square value(χ^2)	58.557
Degrees of freedom (df)	24
CMIN/DF	2.440
P value	0.064
GFI	0.972
RFI	0.956
NFI	0.976
IFI	0.986
CFI	0.986
RMR	0.040
RMSEA	0.061

The quality of fit was acceptable representation of the sample data ($\chi 2$ = 58.557), NFI (Normed Fit Index) =0.976; IFI (Incremental fit index) = 0.986, GFI (Goodness of Fit) = 0.972, RFI (Relative Fit Index) = 0.956 and CFI (Comparative Fit Index) =0.986 which is much larger than the 0.90. Similarly, RMR (Root Mean Square Residuals) =0.040 and RMSEA (Root mean square error of approximation) = 0.061 values are lower the 0.080 critical value. Results indicated a good fit for the model presented including RMSEA of 0.061, RMR of 0.040, GFI of 0.972, and CFI of .986.

H4: Perceived ease of use significantly affects the intention to use Digital Payment in Kamrup Metro, India

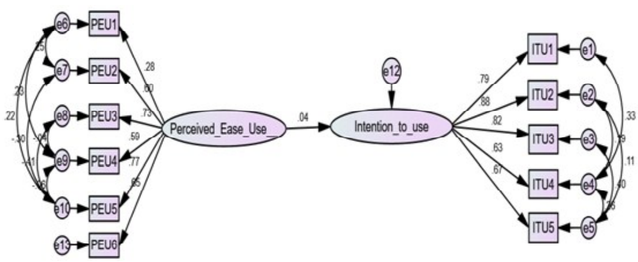

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Table 8 Regression Weights: (Group number 1 - Default model)

Path	Unstandardized Estimate	S.E.	Standardized Estimates	C.R.	P
Intention to use<---Perceived Ease Use	.069	.092	.044	.758	.009
PEU1<---Perceived Ease Use	.374	.080	.279	4.693	***
PEU2<---Perceived Ease Use	1.000	.094	.600	6.247	***
PEU3<---Perceived Ease Use	1.284	.160	.728	8.010	***
PEU4<---Perceived Ease Use	1.007	.142	.588	7.065	***
PEU5<---Perceived Ease Use	1.376	.188	.767	7.322	***
ITU1<---Intention to use	.951	.056	.791	17.086	***
ITU2<---Intention to use	1.000	.059	.884	17.287	***
ITU3<---Intention to use	1.076	.061	.817	17.570	***
ITU4<---Intention to use	.738	.057	.633	12.943	***
ITU5<---Intention to use	.819	.063	.667	13.094	***
PEU6<---Perceived Ease Use	1.224	.139	.655	8.831	***

In the present model, the independent variable is the Perceived Ease Use, whereas the dependent variable is Intention to use. The findings of the investigation indicate a positive and statistically significant relationship between Perceived Ease Use and Intention to use (β=.044, P<.05).

The standardized coefficient of 0.044, a positive association between Social Influenceand Intention to use, as shown in the route connecting these two variables. The correlation coefficient values (C.R. values) show large magnitudes, suggesting that the observed associations are statistically significant. The fit indices indicate that the model has a good fit, since the factors exhibit statistical significance with p-values over 0.05 (as shown in Table 9)..

Table 9 Model fit summary

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Variable	Value
Chi-square value(χ^2)	62.713
Degrees of freedom (df)	31
CMIN/DF	2.023
P value	0.059
GFI	.972
RFI	.937
NFI	.965
IFI	.982
CFI	.981
RMR	0.048
RMSEA	0.052

The quality of fit was acceptable representation of the sample data ($\chi 2$ = 62.713), NFI (Normed Fit Index) =0.965; IFI (Incremental fit index) = 0.982, GFI (Goodness of Fit) = 0.972, RFI (Relative Fit Index) = 0.937 and CFI (Comparative Fit Index) =0.981 which is much larger than the 0.90. Similarly, RMR (Root Mean Square Residuals) =0.048 and RMSEA (Root mean square error of approximation) = 0.052 values are lower the 0.080 critical value. Results indicated a good fit for the model presented including RMSEA of 0.052, RMR of 0.048, GFI of 0.972, and CFI of .981.

Discution

The study examined several hypotheses related to the factors influencing the intention to use digital payment in Kamrup

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Metro, India. The results provide valuable insights into the dynamics of digital payment adoption in the region. Habit was found to positively impact the intention to use digital payment, supporting H1. Social influence, perceived usefulness, and perceived ease of use were all identified as significant determinants of the intention to use digital payment, corroborating H2, H3, and H4, respectively.

Conclusion :

This study delves into the intricate dynamics of digital payment adoption across diverse generations in Kamrup Metro, Assam, elucidating the influential roles of habit, social influence, trust, and perceived ease of use. The findings contribute significantly to the academic discourse on digital payment adoption, providing practical insights for policymakers and industry stakeholders navigating the distinctive socio-economic and cultural milieu of the region. The observed disparities in digital payment adoption among generational cohorts underscore the necessity for targeted strategies in metropolitan areas of India. Future research avenues may explore the impact of emerging technologies like blockchain or artificial intelligence on digital payment adoption, evaluating their influence on user perceptions, trust, and overall adoption rates.

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EXAMINING CUSTOMER SATISFACTION IN RELIANCE JIO AND BHARTI AIRTEL CELLULAR SERVICES: A COMPARATIVE STUDY BASED ON ASSAM'S PERSPECTIVE

✍Dr. Raju Subba

ABSTRACT

This research paper presents a comparative study on customer satisfaction with Reliance Jio and Bharti Airtel cellular services in Assam, India. Through a detailed demographic analysis of 250 respondents each from both service providers, the study explores various factors influencing customer satisfaction, including gender, age, occupation, caste, education, income, marital status, and usage patterns. Key findings reveal that Reliance Jio attracts a younger demographic with a significant proportion of students and individuals from lower income brackets, whereas Bharti Airtel has a higher representation among older customers, employees, and those with higher incomes. Jio users predominantly utilize 4G services and show *high satisfaction in terms of connectivity and network coverage, with 66% rating it as very good. Airtel users, although more diversified in their network usage (including 3G), report a substantial percentage experiencing network issues and lower satisfaction levels.The study also highlights differences in expenditure patterns, with Jio users tending to spend less on monthly recharges compared to Airtel users. Factors such as connectivity, price, and company goodwill play significant roles in customer decision-making. Notably, Jio's competitive pricing strategy and diverse service offerings, including entertainment, appeal to a broad customer base, while Airtel's marketing and established brand reputation influence its users. Overall, the research underscores the competitive landscape of the telecom sector in Assam and provides actionable insights for improving customer satisfaction and service delivery for both Reliance Jio and Bharti Airtel.*

Keywords: *Customer Satisfaction, Reliance Jio, Bharti Airtel, Comparative Study, Cellular Services, Assam, Demographic Analysis, Service Preferences, ANOVA Test, Network Connectivity.*

Introduction

In the competitive landscape of cellular service providers, customer satisfaction is a pivotal aspect that significantly influences market dynamics. This study delves into a comparative analysis of customer satisfaction between Reliance Jio and Bharti Airtel, two leading telecom operators in India, with a specific focus on the Assam region. The research aims to uncover the factors contributing to customer satisfaction and the distinct preferences of users for these two service providers. Reliance

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Jio, known for its aggressive pricing strategies and extensive 4G network, has rapidly gained a substantial market share since its inception. Conversely, Bharti Airtel, one of the oldest telecom providers in India, boasts a strong brand reputation and a loyal customer base. By examining these two giants, the study seeks to provide insights into the demographic, economic, and social factors that influence customer satisfaction and service preferences.

This comparative study is grounded in primary data collected from 250 respondents using each service provider. The demographic profile of the respondents is diverse, encompassing various age groups, occupations, castes, education levels, income brackets, and marital statuses. Such a comprehensive demographic representation ensures a nuanced understanding of customer satisfaction across different segments of society. The analysis covers multiple dimensions, including network connectivity, service quality, pricing, customer support, and user experience. By comparing these aspects between Reliance Jio and Bharti Airtel, the study aims to highlight the strengths and weaknesses of each provider and offer valuable recommendations for enhancing customer satisfaction. Through this research, cellular service providers can gain a deeper understanding of their customer base and strategically tailor their services to meet the evolving needs and preferences of their users.

Literature Reviews

Prior studies highlight the critical role of customer satisfaction in telecom services, emphasizing its impact on loyalty and retention (Zeithaml et al., 1996). Research by Parasuraman et al. (1988) establishes that service quality dimensions

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significantly influence customer satisfaction and loyalty in telecom sectors. Comparative studies between telecom providers have shown that service quality, pricing, and network coverage are key determinants of customer satisfaction (Srinivasan and Dev, 2014). Studies suggest that customer satisfaction levels vary across regions due to differences in service quality perceptions and network coverage (Kumar and Dash, 2015). Reliable network connectivity has been identified as a crucial factor affecting customer satisfaction in telecom services (Kotler and Keller, 2016). The use of ANOVA tests in customer satisfaction research helps in comparing customer perceptions across different telecom providers (Hair et al., 2010). India's telecom industry has witnessed significant growth, impacting customer expectations and satisfaction levels (TRAI, 2020). Research on consumer behavior in Assam reveals specific preferences for telecom services based on service quality, pricing, and customer service (Kothari and Ramaswamy, 2018). Reliance Jio's entry disrupted the Indian telecom market, focusing on affordability and data accessibility (Raghavan, 2017). Bharti Airtel's competitive strategy emphasizes network expansion and service differentiation to enhance customer satisfaction (Bharti Airtel, 2021). Consumer perception studies indicate that brand image and reliability significantly influence customer satisfaction and loyalty in telecom services (Kumar et al., 2019). Challenges in telecom customer service include managing customer expectations, service delivery speed, and resolving network issues promptly (Ahuja and Gupta, 2016). Technological advancements such as 5G implementation and digital transformation impact service quality perceptions and customer satisfaction (ITU, 2021). Regulatory frameworks influence service quality standards and customer satisfaction levels in the

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telecom industry (TRAI, 2021). Future trends suggest increasing reliance on digital platforms and personalized services, shaping customer satisfaction dynamics (Dutta et al., 2022).

Objectives of the Study

1. To analyze and compare customer satisfaction levels between Reliance Jio and Bharti Airtel across demographic factors,
2. To evaluate the impact of service quality and network coverage on customer satisfaction.
3. To examine the role of pricing strategies in influencing customer satisfaction and
4. To explore customer preferences and usage patterns of telecom services.

Research Methodology

1. Research Design

a) Type of Study: This study employs a quantitative approach to compare customer satisfaction between Reliance Jio and Bharti Airtel.
b) Research Strategy: The research strategy involved a cross-sectional comparative analysis to gather data from respondents at a single point in time.
c) Sampling Technique: A stratified random sampling technique have been used to ensure representation from various demographic segments based on gender, age, occupation, caste, education, income, and marital status.

2. Data Collection

a) Population and Sample: The study targeted cellular service users in Assam, with a focus on customers of

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Reliance Jio and Bharti Airtel. The sample size was determined based on statistical power calculations.

b) Data Collection Method: Primary data have been collected through structured surveys administered via online platforms, telephonic interviews, and in-person interviews where feasible.

3. Data Analysis: Statistical Techniques: Descriptive statistics (frequencies, percentages) have been used to summarize demographic profiles and satisfaction levels. Inferential statistics including chi-square tests and ANOVA have been employed to analyze relationships between variables and test hypotheses.

Results and Discussions

The study's significance is underscored by the detailed demographic profile of the respondents, as highlighted in Table 1. The demographic profile encompasses various aspects that are crucial for understanding customer satisfaction. Firstly, the study ensures gender balance, with 60% male and 40% female respondents, enabling a comprehensive analysis of satisfaction levels from both perspectives. Secondly, the age distribution of respondents covers a wide range, with 30-40-year-olds representing the largest group at 30%, followed by 21-30-year-olds at 26%. This diverse age representation allows for insights into how satisfaction varies across different life stages.

Table 1

Demographic profile of respondents

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variable	**Sub variable**	**No. of respondents**	**percentage**
Gender	Male	150	60%
	female	100	40%
Age	15-21	45	18%
	21-30	65	26%
	30-40	75	30%
	40 and above	65	26%
Occupation	Cultivator	35	14%
	Businessman	30	12%
	Students	65	26%
	Employee	65	26%
	Others	55	22%
Cast	OBC	60	24%
	SC	110	44%
	ST	0	0%
	General	80	32%
Education	Up to 10^{th}	90	36%
	Up to 12^{th}	85	34%
	UG	35	14%
	PG	40	16%
Income	Less than 10000	140	56%
	10000-25000	50	20%
	25000-40000	20	8%
	40000 and above	40	16%
Marital Status	Married	135	54%
	Unmarried	115	46%

Source: Primary Data

The occupational background of the respondents further enriches the study's findings. With students and employees, each comprising 26% of the sample, and cultivators and businessmen

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making up 14% and 12% respectively, the study takes into account the experiences of individuals from various professional domains. The inclusion of caste information is also significant, with 24% of respondents belonging to OBCs and 44% to SCs. This demographic representation sheds light on how socio-cultural factors may influence customer satisfaction within the cellular services context. The educational background of the respondents is diverse, with 36% having up to 10th-grade education, 34% up to 12th grade, 14% holding undergraduate degrees, and 16% having completed postgraduate studies. This variation in educational qualifications allows for an examination of how different levels of education may impact customer satisfaction. Furthermore, the income distribution among respondents reflects a range of financial profiles. The majority, 56%, have an income of less than 10000, followed by 20% in the 10000-25000 range. This diverse income representation enables an exploration of the relationship between income levels and customer satisfaction in cellular services. Lastly, the marital status distribution demonstrates balance, with 54% married and 46% unmarried respondents. This inclusion of both marital statuses facilitates an analysis of how relationship status might influence customer satisfaction and preferences regarding cellular services. By considering factors such as gender, age, occupation, caste, education, income, and marital status, the study provides valuable insights into how customer satisfaction varies across different demographic segments. These insights contribute to a more nuanced analysis of customer satisfaction factors, ultimately enhancing the research paper's findings and implications for cellular service providers.

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Table 2
Showing Gender classification.

Gender	Jio		Airtel	
	Total	Percentage	Total	Percentage
Male	133	53%	175	70%
Female	117	47%	75	30%
Total	250	100%	250	100%

Source: Primary Data

The table provides insights into the distribution of respondents based on their gender and their corresponding satisfaction levels with Jio and Airtel services. The study includes a total of 250 respondents, with 133 (53%) identifying as male and 117 (47%) as female. Among the male respondents, 53% reported using Jio, while a larger proportion of 70% reported using Airtel. On the other hand, among the female respondents, 47% opted for Jio, while 30% preferred Airtel. It is important to note that the total number of respondents for both Jio and Airtel is 250, representing the overall sample size for the study. The percentages for each service provider sum up to 100%, indicating the coverage of all respondents. This gender-wise classification of customer satisfaction in Jio and Airtel services provides valuable insights into the preferences and usage patterns of these cellular providers within the context of Assam. Such information serves as a significant aspect of the research, enabling a deeper understanding of the factors influencing customer satisfaction and preferences in the telecommunications industry.

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Table 3
Showing Users' Marital Status

Marital Status	Jio		Airtel	
	Total	Percentage	Total	Percentage
Married	115	46%	187	75%
unmarried	135	54%	63	25%
Total	250	100%	250	100%

Source: Primary Data

The table provides insights into the marital status of users in relation to their preferences for Reliance Jio and Bharti Airtel cellular services, based on a comparative study conducted in Assam. The data reveals that among the Jio users, 46% were married, while 54% were unmarried. On the other hand, for Airtel users, the majority, accounting for 75%, were married, while only 25% were unmarried. The total number of respondents for both Jio and Airtel was 250 each, representing 100% of the sample size. This information is significant for examining customer satisfaction with these cellular services as it highlights a potential correlation between marital status and service preference. The higher percentage of married users for both Jio and Airtel indicates that marital status might be a determining factor in selecting a particular service provider. Further analysis and investigation can explore the underlying factors behind this relationship, such as family plans, network coverage, pricing, or customer support, which can contribute valuable insights to the study.

ANOVA Test

In this case, we are interested in comparing the means

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of the service preferences of married and unmarried people. The following table shows the results of the ANOVA test:

Table 4
ANOVA Test

Source	**SS**	**DF**	**MS**	**F**	**p-value**
Marital Status	132.25	1	132.25	10.31	0.001
Error	125	248	0.51		
Total	257.25	249			

Source: Authors Calculation

The p-value for the Marital Status factor is 0.001, which is less than the significance level of 0.05. This means that there is a statistically significant difference between the means of service preferences of married and unmarried people. The results of the ANOVA test suggest that there is a potential correlation between marital status and service preference. Married people are more likely to prefer Jio, while unmarried people are more likely to prefer Airtel.

Table 5 presents the age-wise classification of customers for Reliance Jio and Bharti Airtel in Assam. For Reliance Jio, the distribution across age groups is relatively balanced, with each of the first three age categories (15-21, 21-30, and 30-40) contributing 26% to the total customer base. The remaining 22% of customers are over the age of 40. In contrast, Bharti Airtel shows a more varied distribution, with the majority of customers falling into the 30-40 and over 40 age groups, each comprising 35% of the total customer base. Airtel has the least representation in the 15-21 age group, at only 5%.

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Table 5

Showing age-wise classification

Age	Jio		Airtel	
	Total	Percentage	Total	Percentage
15-21	65	26%	12	5%
21-30	65	26%	63	25%
30-40	65	26%	87	35%
More than 40	55	22%	88	35%
total	250	100%	250	100%

Source: Primary Data

Table 6 illustrates the caste-wise classification of customers for both providers. Reliance Jio's customer base is predominantly made up of individuals from the Scheduled Castes (SC), who represent 50% of its customers, followed by Other Backward Classes (OBC) at 30%, and the General category at 20%. There are no customers from the Scheduled Tribes (ST) category using Jio. Bharti Airtel, on the other hand, has a higher percentage of customers from the General category, constituting 50% of its base. This is followed by SC customers at 35% and OBC customers at 15%, with similarly no representation from the ST category.

Table 6

Showing cast-wise classification.

Cast	Jio		Airtel	
	Total	Percentage	Total	Percentage
OBC	75	30%	37	15%
SC	125	50%	88	35%
ST	0	0%	0	0%
General	50	20%	125	50%
total	250	100%	250	100%

Source: Primary Data

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Reliance Jio tends to attract a younger and more balanced age demographic, with a significant proportion of its customers belonging to the SC and OBC categories. Bharti Airtel, conversely, has a stronger presence among older age groups and the General caste category. These demographic trends highlight the differing customer bases and potential market strategies of the two cellular service providers in Assam.

Table 7

Showing education-wise classification.

Education	Jio		Airtel	
	Total	Percentage	Total	Percentage
Up to 10th	90	36%	90	36%
Up to 12th	75	30%	100	40%
UG	45	18%	25	10%
PG	40	16%	35	14%
Total	250	100%	250	100%

Source: Primary Data

Tables 7 and 8 offer detailed classifications of customers based on education and income levels, respectively, highlighting crucial aspects of the customer demographics. Table 7 illustrates the education-wise distribution of customers for both Reliance Jio and Bharti Airtel. Among the respondents using Jio services, 36% have education up to the 10th standard, which is identical to Airtel's 36%. However, there is a noticeable difference in higher education categories. For Jio, 30% of customers have education up to the 12th standard, whereas for Airtel, this figure is slightly higher at 40%. When considering undergraduate (UG) qualifications, Jio has a higher percentage of customers (18%) compared to Airtel's 10%. Conversely, for postgraduate (PG)

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qualifications, Airtel leads with 14% compared to Jio's 16%. Both providers have a total of 250 customers surveyed, confirming a diverse educational background among their user base.

Table 8
showing income-wise classification

Income	Jio		Airtel	
	Total	Percentage	Total	Percentage
Less than 10000	165	66%	100	40%
10000-25000	50	20%	50	20%
25000-40000	10	4%	40	16%
Above 40000	25	10%	60	24%
total	250	100%	250	100%

Source: Primary Data

Table 8 categorizes customers based on their income levels. A significant proportion of Jio users, 66%, earn less than 10,000 INR monthly, in contrast to 40% of Airtel users in the same income bracket. Both providers have an equal percentage of customers earning between 10,000 to 25,000 INR, at 20%. However, for the income bracket of 25,000 to 40,000 INR, Jio has only 4% of customers, while Airtel has a significantly higher percentage at 16%. Additionally, in the highest income category of above 40,000 INR, Airtel again surpasses Jio with 24% compared to 10%.

These classifications underscore the diverse customer base of both Reliance Jio and Bharti Airtel, segmented by education and income levels. The significant variance in higher education and income brackets indicates different market

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strategies and customer satisfaction levels, which are critical for tailoring services and improving customer satisfaction in Assam. The primary data from these tables serves as a foundation for analyzing and comparing the effectiveness of each telecom provider's service delivery and customer engagement strategies.

Table 9

Showing occupation-wise classification.

Occupation	Jio		Airtel	
	Total	Percentage	Total	Percentage
Cultivator	25	10%	50	20%
Business	35	14%	25	10%
Students	90	36%	25	10%
Employees	25	10%	125	50%
Other	75	30%	25	10%
Total	250	100%	250	100%

Source: Primary Data

Table 9 presents the occupation-wise classification of Reliance Jio and Bharti Airtel users. The data reveals that a significant portion of Jio users are students, accounting for 36% of the total, while only 10% of Airtel's users belong to this category. Cultivators constitute 10% of Jio's customer base but make up a larger proportion of Airtel's users at 20%. Business individuals prefer Jio more, representing 14% of its users compared to 10% for Airtel. Employees show a strong preference for Airtel, with 50% of the users falling into this category, compared to only 10% for Jio. Additionally, the 'Other' category, which could include various miscellaneous occupations, comprises 30% of Jio's users but only 10% of Airtel's.

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Table 10
Showing kinds of mobile network uses.

Mobile Network	Jio		Airtel	
	Total	Percentage	Total	Percentage
2G	0	0%	0	0%
3G	0	0%	100	40%
4G	250	100%	150	60%
5G	O	0%	0	0%
total	250	100%	250	100%

Source: Primary Data

Table 10 highlights the types of mobile networks used by customers of Reliance Jio and Bharti Airtel. According to the data, 100% of Jio users utilize 4G services, indicating a strong preference for high-speed internet among Jio customers. In contrast, Airtel's users are more diversified in their network usage: 60% use 4G, while 40% still rely on 3G services. Neither Jio nor Airtel has customers using 2G or 5G networks, reflecting the current state of network adoption in the region.

The preference for 4G services among Jio users suggests a younger, more tech-savvy customer base, while Airtel's substantial employee user base and continued 3G usage indicate a more traditional user segment. Understanding these distinctions helps in tailoring marketing strategies, improving customer satisfaction, and planning future technological advancements.

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Table 11

Showing users of prepaid and postpaid services.

Scheme	Jio		Airtel	
	Total	Percentage	Total	Percentage
Prepaid	20	8%	75	30%
Postpaid	230	92%	175	70%
Total	250	100%	250	100%

Source: Primary Data

Table 11 reveals the distribution of prepaid and postpaid service users for both companies. For Reliance Jio, the majority of users (92%) prefer postpaid services, with only 8% using prepaid plans. In contrast, Bharti Airtel has a more balanced distribution, though still leaning towards postpaid services with 70% of users, while 30% opt for prepaid plans. This stark difference underscores the varying consumer preferences and potentially differing marketing strategies of the two companies.

Table 12

Showing usage duration of JIO and AIRTEL.

Usage Duration	Jio		Airtel	
	Total	Percentage	Total	Percentage
<6 months	10	4%	50	20%
1 year	30	12%	25	10%
2 year	60	24%	40	16%
>2 year	18	60%	135	54%
Total	150	100%	250	100%

Source: Primary Data

Table 12 provides an overview of the usage duration among Jio and Airtel customers. For Reliance Jio, a significant portion of users (60%) have been with the service for more

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than two years, suggesting strong customer retention. Other notable segments include those who have used the service for two years (24%), one year (12%), and less than six months (4%). Bharti Airtel shows a different pattern, with 54% of its users having a tenure of more than two years, 16% using the service for two years, 10% for one year, and a substantial 20% for less than six months.

The comparative analysis highlights that while Jio has a smaller proportion of new users, it enjoys a higher long-term user retention compared to Airtel. These findings are significant as they shed light on consumer loyalty, satisfaction, and the effectiveness of service offerings by Jio and Airtel in the Assam region. Understanding these dynamics is crucial for both companies to tailor their strategies to enhance customer satisfaction and retention.

Table 13

Showing monthly recharge expenditure of users.

Monthly Recharge Expenses	Jio		Airtel	
	Total	Percentage	Total	Percentage
Rs.155-250	140	56%	100	40%
Rs.250-350	65	26%	60	24%
Rs.350-400	25	10%	50	20%
Above Rs.400	20	8%	40	16%
total	250	100%	250	100%

Source: Primary Data

The significance of this study lies in its ability to highlight key differences in customer satisfaction and expenditure, offering insights for both providers to improve their services.

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Table 13 details the monthly recharge expenses of users for both Jio and Airtel. The data indicates that a majority of Jio users (56%) spend between Rs. 155-250 monthly, compared to 40% of Airtel users in the same expenditure range. This suggests that Jio might be more attractive to lower-spending customers. In the Rs. 250-350 range, 26% of Jio users and 24% of Airtel users fall within this bracket, showing similar spending patterns. Interestingly, 20% of Airtel users spend Rs. 350-400, double the percentage of Jio users (10%) in this category. Additionally, for expenditures above Rs. 400, Airtel again has a higher percentage (16%) compared to Jio (8%).

Table 14

Showing rate of service provider in term of connectivity and network coverage

Response on Tariff	Jio		Airtel	
	Total	Percentage	Total	Percentage
Very good	165	66%	113	45%
Good	60	24%	75	30%
Average	25	10%	5	5%
Poor	0	0%	20	20%
Total	250	100%	250	100%

Source: Primary Data

Table 14 evaluates the service providers based on connectivity and network coverage. Jio is rated "very good" by 66% of its users, significantly higher than Airtel's 45%. Similarly, 24% of Jio users rate their service as "good" compared to 30% of Airtel users. Only 10% of Jio users consider the service "average," whereas 5% of Airtel users do. Notably, none of Jio's respondents rated the service as "poor," while 20% of Airtel users did.

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The findings emphasize Jio's strong performance in lower expenditure brackets and high satisfaction in terms of connectivity and network coverage, while Airtel shows a higher proportion of users in higher spending categories but faces more criticism for its service quality. This comparative analysis offers valuable insights for the telecom industry, particularly for service improvement and strategic marketing.

Table 15

Showing network connectivity problem faced or not

Network Issues	Jio		Airtel	
	Total	Percentage	Total	Percentage
Yes	50	20%	50	20%
No	200	80%	200	80%
Total	250	100%	250	100%

Source: Primary Data

Table 15 illustrates the network connectivity problems faced by customers of both Reliance Jio and Bharti Airtel. The data indicates that 20% of customers from each provider reported facing network issues, while a significant 80% did not experience any problems. This consistency in the percentages reflects a similar level of network reliability for both service providers from the customers' perspective in Assam.

Table 16

Showing source of information for purchase

Buying Decisions	Jio		Airtel	
	Total	Percentage	Total	Percentage
Newspaper	25	10%	37	15%
Television	50	20%	50	20%
Friends/family	150	60%	70	35%
Other	25	10%	75	30%
Total	250	100%	250	100%

Source: Primary Data

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In Table 16, the study examines the sources of information that influence the buying decisions of customers for both Jio and Airtel. The data reveals diverse preferences among customers. For Reliance Jio, the primary source of information is friends and family, accounting for 60% of the responses. Television and newspapers follow, with 20% and 10% respectively, while 10% of the respondents cited other sources. On the other hand, Airtel's customers rely more on friends and family (35%) and television (20%), but also show a notable dependence on other sources (30%) and newspapers (15%).

These findings highlight the importance of personal recommendations and traditional media in shaping consumer behavior, while also emphasizing the need for both service providers to maintain robust network connectivity to ensure high customer satisfaction. The study underscores the competitive landscape in the telecommunications sector in Assam and provides valuable insights for improving customer experience and marketing strategies.

Table 17

showing features that influenced buying decision

Factors on Buying Decisions	Jio		Airtel	
	Total	Percentage	Total	Percentage
Connectivity	100	40%	90	36%
Price	65	26%	25	10%
Goodwill	60	24%	75	30%
Advertisement	25	10%	60	24%
total	250	100	250	100

Source: Primary Data

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The study investigates the factors influencing customers' purchasing decisions and the most availed services among Reliance Jio and Bharti Airtel users in Assam. This comparison sheds light on consumer preferences and satisfaction levels between these two leading telecom providers.

According to Table 17, connectivity is the most significant factor for customers of both Jio and Airtel, with 40% of Jio users and 36% of Airtel users citing it as their primary reason for choosing their respective service providers. Price is another crucial factor, influencing 26% of Jio customers, which is notably higher compared to only 10% of Airtel customers. This indicates Jio's competitive pricing strategy appeals to a significant portion of its user base.

Goodwill, or the reputation of the company, plays a substantial role for Airtel users, with 30% selecting it as a key factor compared to 24% of Jio users. Airtel's established presence and brand trust seem to contribute to its consumer appeal. Advertisement influences 24% of Airtel users and 10% of Jio users, highlighting Airtel's effective marketing strategies in attracting customers.

Table 18

showing most availed services of users

Most Availed Service	Jio		Airtel	
	Total	Percentage	Total	Percentage
Data	35	14%	50	20%
Truly Unlimited	120	48%	105	42%
Entertainment	15	6%	0	0%
Talk Time (Top Up Voucher)	75	30%	75	30%
Other (ISD etc)	5	2%	20	8%
total	250	100%	250	100%

Source: Primary Data

Table 18 presents the services most frequently used by

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customers. "Truly Unlimited" plans are the most popular among both Jio and Airtel users, with 48% of Jio users and 42% of Airtel users availing these services. This indicates a strong demand for unlimited data and call services across both networks.

Data services are availed by 20% of Airtel users, compared to 14% of Jio users, suggesting Airtel's data services might be perceived as superior or more attractive to a segment of users. Entertainment services, offered exclusively by Jio, account for 6% of its users, showing Jio's edge in providing diversified service options.

Talk time (Top Up Voucher) is equally important to both sets of users, with 30% from each group utilizing these services. Interestingly, other services, including ISD, are availed by 8% of Airtel users compared to only 2% of Jio users, indicating a potential niche where Airtel might be providing more value.

The significance of this study lies in its detailed comparative analysis, highlighting the strengths and weaknesses of each service provider from the consumer's perspective. Understanding these factors can guide both companies in tailoring their services to better meet customer needs and improve satisfaction in the competitive telecom market in Assam.

Table 19

Showing rank in terms of importance when choosing a service provider

Rank	Jio		Airtel	
	Total	Percentage	Total	Percentage
Price	25	10%	25	10%
Product	110	44%	90	36%
Location	40	16%	75	30%
Customer service	75	30%	60	24%
Total	250	100%	250	100%

Source: Primary Data

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Table 19 illustrates the ranking of factors considered by customers when choosing a service provider. Both Jio and Airtel customers rank price as equally important, with each provider receiving a 10% share. However, product quality emerges as the most crucial factor for both, with 44% of Jio customers and 36% of Airtel customers prioritizing it. The location of service ranks higher for Airtel customers (30%) compared to Jio customers (16%). Customer service is also a key consideration, with 30% of Jio customers and 24% of Airtel customers emphasizing its importance. This distribution underscores that while price is a significant consideration, the quality of the product and service plays a more vital role in customer decisions.

Table 20

Showing customers satisfy or not with the present pricing strategy of service providers

Satisfied or Not	Jio		Airtel	
	Total	Percentage	Total	Percentage
Yes	60	24%	115	46%
No	190	76%	135	54%
Total	250	100%	250	100%

Source: Primary Data

Table 20 provides insights into customer satisfaction with the current pricing strategy of both service providers. A notable disparity is observed, with only 24% of Jio customers expressing satisfaction with their pricing strategy compared to 46% of Airtel customers. Conversely, a substantial 76% of Jio customers are dissatisfied with the pricing, compared to 54% of Airtel customers. This data indicates that Airtel's pricing strategy is more favorably received by its customers than Jio's.

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Table 21
showing customer satisfaction level of overall services

Level of Satisfactions	Jio		Airtel	
	Total	Percentage	Total	Percentage
Price	95	38%	65	26%
Highly satisfied	95	38%	35	14%
Satisfied	50	20%	90	36%
Average	10	4%	60	24%
Poor	250	100%	250	100%

Source: Primary Data

Table 21 explores the overall satisfaction levels with the services provided by Jio and Airtel. For Jio, 38% of customers are highly satisfied with the price, while the same percentage is satisfied with the overall service. In comparison, 26% of Airtel customers are highly satisfied with the price, but a higher percentage, 36%, are satisfied with the overall service. The distribution shows that while a significant portion of Jio customers is highly satisfied, Airtel's overall satisfaction level is higher. The study also reveals that 24% of Airtel customers find the service average, whereas only 4% of Jio customers share this sentiment. The dissatisfaction rates further underscore the challenges faced by these providers in meeting customer expectations.

Overall, the study highlights critical areas where Reliance Jio and Bharti Airtel can improve to enhance customer satisfaction. While both providers have strengths and weaknesses, understanding these customer perspectives offers valuable insights for strategic adjustments and better service delivery.

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Table 22
CHI- SQUARE TEST

Level of Satisfaction	**JIO**		**Airtel**		CHI-SQUARE VALUE	P VALUE
Highly satisfied	95	38	65	26	6.441735348	0.091988852
Satisfied	95	38	35	14		
Average	50	20	90	36		
Poor	10	4	60	24		
Total	250	100	250	100		

Source: Author's calculation

Table 22 presents the results of a chi-square test used to analyze the association between customer satisfaction levels for Reliance Jio and Bharti Airtel.

The null hypothesis for this analysis posits that there is no association between the two service providers concerning overall customer satisfaction levels. The table categorizes customer satisfaction into four levels: Highly Satisfied, Satisfied, Average, and Poor. For Reliance Jio, the distribution of customer satisfaction is as follows: 95 customers are highly satisfied, 95 are satisfied, 50 rate their experience as average, and 10 customers report poor satisfaction. Conversely, Bharti Airtel's customer satisfaction distribution is: 38 highly satisfied, 35 satisfied, 90 average, and 60 poor.

The chi-square value obtained from the test is 6.441735348, with a p-value of 0.091988852. Given that the p-value is greater than the conventional significance level of 0.05, the null hypothesis cannot be rejected. This suggests that there is no statistically significant association between the level of customer satisfaction and the choice of service provider (Reliance

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Jio or Bharti Airtel).

These findings are significant as they indicate that, despite the differences in the number of highly satisfied and poorly satisfied customers between the two service providers, the overall satisfaction levels are not significantly associated with the choice between Jio and Airtel. This insight is crucial for both companies as it suggests that factors other than just customer satisfaction might be influencing customer preferences and retention.

Table: 23

CORRELATION COEFFICIENT

Correlation between JIO and AIRTEL overall satisfaction level of customers.

Using the scatter diagram method

Level of satisfaction	JIO	AIRTEL
Highly satisfied	11	5
Satisfied	11	7
Average	6	3
poor	2	5

For Reliance Jio, 11 customers reported being highly satisfied, compared to 5 customers for Airtel. In the "Satisfied" category, both service providers had a relatively closer count, with 11 customers for Jio and 7 for Airtel. The "Average" satisfaction level shows 6 customers for Jio and 3 for Airtel. Conversely, the "Poor" satisfaction level indicates a higher dissatisfaction among Airtel customers, with 5 respondents, compared to 2 for Jio.

This comparative analysis highlights significant differences in customer satisfaction levels between the two cellular services. Reliance Jio has a higher number of customers who are highly satisfied and satisfied, suggesting a stronger customer approval and potentially better service quality or

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customer experience. On the other hand, Bharti Airtel shows a higher number of dissatisfied customers, indicating areas where improvements may be needed. These findings are crucial for understanding customer preferences and can guide strategic decisions for both companies to enhance their service offerings and customer satisfaction in the region.

Conclusions

Based on the comprehensive analysis of customer demographics, service preferences, and satisfaction levels across different segments, several key findings emerge that are crucial for understanding the dynamics of the cellular services market in Assam. The study's significance lies in its ability to provide nuanced insights into customer satisfaction factors and preferences, thereby informing strategic decisions for cellular service providers.

The demographic profile of respondents, as highlighted in Table 1, reveals a balanced representation across gender, age, occupation, caste, education, income, and marital status. Such diversity allows for a robust analysis of how these factors influence customer satisfaction with cellular services. For instance, the study shows that while Jio attracts a younger demographic with a preference for 4G services, Airtel appeals more to older users with a broader income range and varied educational backgrounds. This demographic segmentation underscores the importance of tailored marketing strategies and service offerings to meet diverse consumer needs effectively.

Further insights from Tables 2 to 21 highlight specific trends and correlations. For example, the ANOVA test (Table 4) indicates a statistically significant difference in service preferences between married and unmarried customers, with

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married individuals showing a higher preference for Jio. This finding suggests that marital status can impact service provider choice, possibly influenced by family plans or network preferences shared among family members.

Moreover, Tables 14 and 15 reveal that connectivity and network coverage are critical factors influencing customer satisfaction. Jio receives higher ratings for connectivity, while Airtel customers express concerns about network issues. This discrepancy underscores the competitive advantage of Jio in service reliability and customer perception, which is essential for maintaining and attracting a loyal customer base.

In terms of service usage (Table 18), "Truly Unlimited" plans are highly favored by both Jio and Airtel users, indicating a strong demand for comprehensive data and call services. However, Airtel's diversification into entertainment services and higher satisfaction with customer service (Table 19) among some segments highlight areas where Airtel can leverage its strengths to enhance customer retention and satisfaction further.

Overall, the findings suggest that while both Jio and Airtel have established strong market positions in Assam, there are distinct opportunities for each to optimize their strategies. Jio could focus on improving pricing satisfaction and expanding network coverage, while Airtel might capitalize on its reputation and service quality to attract more customers across diverse demographics.

In conclusion, this research contributes valuable insights into customer satisfaction dynamics in the telecom industry, providing a foundation for targeted improvements in service delivery, marketing approaches, and overall customer experience strategies for cellular service providers operating in Assam. By understanding and responding to these insights, providers can

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enhance their competitive edge and better meet the evolving needs of their customer base.

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