

# Digital Trends in e-Commerce

Dr. Shivdatt A. Vibhute  
Dr. Lalita M. Yadpalwar



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# **Digital Trends in e-Commerce**

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Dear Academicians & Delegates,

As the President of our esteemed institute, it gives me immense pleasure to extend my warmest greetings to all of you on this momentous occasion of organizing a one-day national conference on Digital Trends in e-commerce and the publication of a book by our Commerce Department.

Today marks a significant milestone in our journey towards academic excellence and innovation in the field of commerce. The theme of this conference “**Digital Trends in e-Commerce**” is not only timely but also crucial in today's rapidly evolving digital landscape. e-commerce has revolutionized the way businesses operate, and this conference provides a platform for academicians, researchers, and scholars to exchange ideas, insights, and best practices in this dynamic field.

I am particularly proud of our Commerce Department for their dedication and hard work in not only organizing this conference but also for their commitment to knowledge dissemination through the publication of a book. The publication of “Digital Trends in e-Commerce” book is a testament to the scholarly pursuits and academic rigour of our faculty members and students. I extend my heartfelt congratulations to all the authors, editors, and contributors involved in the publication of this book. Your efforts have not only enriched our academic community but will also contribute significantly to the body of knowledge in the field of commerce.

I express my deepest gratitude to the Keynote Speaker, Chairpersons of technical sessions, and participant delegates who have enhanced the academic impact of this conference. Your presence and support are invaluable, and I am confident that this conference will be a resounding success.

I wish you all a fruitful and enriching experience at the conference and hope that the discussions and insights shared today will inspire new ideas and collaborations in the field of e-commerce.

Thank you, and best wishes for a successful conference and book publication.

Warm regards,

**Shri Balasaheb Pande**

President,

Abhinav Bharat Shikshan Sanstha, Nanded. M.S. India

5<sup>th</sup> April 2024

Dear Delegates,

I welcome you to the One-day national conference organized by our institution. Our institution has served in the field of education, academics and research since 1971 untireedly. With quality education, we are also providing the best human resources to the nation.

This conference serves as a platform for delegate participants, research scholars and students to come together, exchange ideas, and explore the latest trends and developments in e-commerce. It is a testament to our collective pursuit of knowledge and our desire to stay at the forefront of advancements in the field of commerce.

I am confident that this conference will not only enrich our academic community but also foster collaborations and partnerships that will benefit us in the long run. I encourage all delegate participants, research scholars and students to actively participate in the technical sessions, paper presentations, and discussions planned for the day.

One-day national conference on e-commerce and book publication organized by our eminent Commerce Department marks a significant milestone in our academic journey, showcasing our commitment to excellence and innovation in the field of commerce.

I want to extend my heartfelt gratitude to the Head of the Commerce Department, along with all the dedicated faculty members, for their tireless efforts in making this conference a reality. Despite facing time constraints and challenges, their unwavering dedication and hard work have been truly commendable. Their passion for education and commitment to providing our students with valuable learning opportunities are truly inspiring.

I am immensely proud of the Commerce Department for their hard work and dedication in organizing this conference. Let us come together as a community to make this event a resounding success and a memorable experience for all.

Thank you for your continued support and dedication to our college's academic excellence.

Best Wishes,

**Dr. S. V. Shivnikar**

Principal

Netaji Subhash Chandra Bose College, Nanded. M.S. India

5<sup>th</sup> April 2024

Dear Esteemed Academicians,

As the Dean & Director of the Commerce Faculty at Swami Ramanand Teerth University, Nanded (Maharashtra) it is with great pleasure and excitement that I extend my warmest wishes to the Faculty of Commerce of Netaji Subhashchandra Bose College, Nanded for organizing the one-day national conference on “Digital Trends in e-Commerce” and book publication. This event signifies a remarkable achievement in the academic journey of the Commerce Department, showcasing its dedication to excellence and innovation in the field of commerce.

I commend the Head of the faculty and all faculties of the Commerce Department of Netaji Subhashchandra Bose College for their hard work and commitment to putting together this conference. Your efforts in organizing such an academic event focusing on the futuristic scenario of e-commerce are truly commendable, and I do not doubt that it will be a resounding success.

Also, I extend my heartfelt congratulations on the publication of the book with a national ISBN. This accomplishment is a testament to the hard work, dedication, and expertise of the academicians, faculties, research scholars and students who contributed writings. May this publication serve as a valuable resource for students, researchers, and professionals in the field of commerce, and may it pave the way for future academic endeavours and achievements.

As we gather for this conference and book publication, I offer my best wishes for an enriching experience for all delegate participants, research scholars and students. May this event inspire new ideas, foster collaborations, and ignite a passion for learning and innovation. I look forward to witnessing the impact of this conference on the academic community and the future academic journey of the Commerce Department.

Best Wishes & Warm regards,

**Sr. Professor Dr. D. M. Khandare**

Dean & Director, Faculty of Commerce and Management Science,  
Swami Ramanand Teerth Marathwada University, Nanded M.S. India.

5<sup>th</sup> April 2024

Dear Delegates, Academicians, Research Scholars, and Students,

As a convener of this national conference and Head of, the Faculty of Commerce our institution it is a great pleasure that this is the first national conference organized by our Commerce Department. One day's national conference (Online) on “Digital Trends in e-Commerce” not only marks a significant achievement for our department but also showcases our commitment to staying at the forefront of cutting-edge developments in the field of commerce.

This one-day national conference mainly aims to discuss the digitalized trends of e-commerce because we are at the perfect entry point of the Artificial Intelligence scenario. Just a few years back e-commerce entered our life and revolutionized the way we shop, connect, and do business. With the convenience of shopping from anywhere at any time, consumers have more choices than ever before. This shift in consumer behaviour has created a huge opportunity for businesses to reach a global audience and drive sales like never before.

Digital trends have revolutionized the e-commerce industry. Artificial Intelligence (AI) is revolutionizing various industries, including marketing, banking finance, commerce, education, and conventional businesses. The positive impacts of AI in these sectors are significant. In marketing, AI enables personalized marketing strategies, targeted advertising, and customer segmentation, leading to higher conversion rates and customer satisfaction. In banking and finance, AI streamlines operations detects fraud, and provides personalized financial advice, enhancing efficiency and security. AI-powered chatbots provide personalized recommendations, answer queries instantly, and streamline the shopping process. Machine learning algorithms analyse customer data to predict trends, optimize pricing, and personalize marketing campaigns.

I would especially like to mention that, many of us are from urban areas but the rural people of the nation are still unaware of this changing digital scenario. Digital trends in e-commerce offer immense potential for innovation and efficiency in marketing, banking finance, commerce, education, and conventional businesses, it is essential to address the ethical, privacy, and societal implications of digital trends adoption in businesses. Digitalization of e-commerce is not just a trend – it is a fundamental shift in how we do business in the digital age. By leveraging the power of digitalized trends can reach new heights, connect with customers on a deeper level, and drive sustainable growth in an ever-evolving market. So, let's embrace the opportunities that digital trends of e-commerce offer, innovate with purpose, and continue to shape the future of our national economy together.

At this juncture, I extend my heartfelt gratitude to our President Shri Balasaheb Pande, Secretary Adv. Vanita R. Joshi, and Treasurer Shri Kailashchand Kala for their blessings and unwavering support in making this conference a reality. I also express my sincere thanks to our Principal Dr. S.V. Shivnikar and Vice-Principal Dr. K. M. Kadam for their continuous support and encouragement. Their belief in our capabilities has been a driving force behind the success this event.

I'm indebted to Inaugurator and Keynotes Speaker Sr. Prof. Dr. D. M. Khandare, Chief Guest and Chairman of the 1<sup>st</sup> Technical Session Dr. Surya Prakash, Chairman of the 2<sup>nd</sup> Technical Session- Dr. Vijay Uttarwar for accepting our invitation and to enlighten us with their eminent proficiency. I extend my deepest gratitude to our esteemed delegates, academicians, research scholars, and students not only for participating across the country in this conference but also for active engagement, faith, and cooperation.

I'm thankful to all the members of the College Development Committee (CDC), Members of the Advisory Committee, All Teaching staff and office bearers for their invaluable cooperation and hard work in ensuring the smooth functioning of this conference. Your dedication and commitment have not gone unnoticed.

I would like to thank members of the Publication Committee Dr Rajesh Umbarkar, and Dr Aanad Ashturkar for their consistent efforts in the completion of the book. Last but not least, I'm indebted to Siddhi Publishing House, an esteemed national publisher, for their tireless efforts in bringing the book 'Digital Trends in E-commerce' to fruition within a tight schedule. I also thank Mr. Mohinish Tandale for the beautiful and impactful book cover.

My special word of appreciation goes out to our dedicated faculty members of the commerce department Dr. L.M. Yadpalwar, Dr. A.U. Rathod, Mrs. S. M. Lahankar, Dr. N. U. Machewad, Mr S. P. Yeolikar, Mr K.D. Waghmare, Miss. M. M. Pande, and Mr. S. S. Manwatkar for their constant efforts for the conference.

Jai Hind.

**Dr. Shivdatt Atmaram Vibhute**

Convenor & Editor

Head and Associate Professor, Faculty of Commerce,

Netaji Subhashchandra Bose College, Nanded

5<sup>th</sup> April 2024



Dear Esteemed Delegates,

I am very much pleased to put lines of gratitude to all and sundry contributing this pleasant task. This one day National e conference organized by Our Institution on theme “**Digital trends in e commerce**” Scholars, thinkers and researchers have contributed their valuable thoughts , innovative ideas and fruitful research in this conference in the form of their research papers which are going to be published in the Book with ISBN number of this conference. I am very happy to say that from every corner of the nation research papers are reached in this conference. The theme of this conference is very clear and relevant to the present situation of our country. Aim of this conference to exploring digital trends in ecommerce, adapting to technological advances such as AI, voice commerce to enhance the ecommerce experience, enhancing website and app interfaces, encouraging experimentation and innovation in e-commerce, informed about regulation, including data protection, consumer right and taxation to ensure legal and ethical practices. We believe that Nation and its progress is completely depends on individual’s progress and development. When every small sector of India will get developed only then India as a Nation will get developed.

Thank You.

**Dr. Lalita Maroti Yadpalwar**

Co-ordinator & Co – Editor

Associate Professor, Faculty of Commerce,  
Netaji Subhashchandra Bose College, Nanded

5<sup>th</sup> April 2024

## Index

<b>Sr. No.</b>	<b>Chapter</b>	<b>Author</b>	<b>Page No.</b>
01	Digital Trends in Working Capital Management: A Study With Special Reference to MSME Industries	Dr. Vijay Uttarwar	13
02	Increasing Brand Awareness in the FMCG Sector Through Digital Marketing	Aparna Singh	20
03	Recent Trends in Digital Marketing	Dr. P. L. Harale	27
04	Ethics in Business: An Important Key Aspect of the Concern	Dr. Sonia Devi	31
05	The Role of Artificial Intelligence and Machine Learning in Shaping Digital Banking Services	Dr. Hemaltha B S Dr. Ranjini. M. L	39
06	Examining Customer Sentiments Regarding E-Wallet Payment Systems	Yesha Vyas Dr. Bhavana Parwani	47
07	A Study on Perception of Self-Help Group Members Towards Digital Payment System With Reference to Bagalkot District, Karnataka State	Irfan Basha Dr. Ranjini M. L Dr. Rajith Kumar H. B	58
08	A Scrutiny on Enhanced Virtual Banking Implementation in India	Mr. Fakiresh Jalihal Dr. Ranjini M. L. Dr. Rajith Kumar H. B.	68
09	Navigating Mental Ambiguity: The Journey of College Students	Diya Prajapati Dr. Urvi Amin	81
10	Role of Digital Marketing in MSME Sector	Shakunthala H Dr. Ranjini M. L Dr. Rajith Kumar H. B.	91
11	Evolving Digital Trends in E-Commerce	Dr. Dhananjay Mandlik Prof. Dr. Ram Rautrao Dr. Revati Ram. Rautrao	102

12	<b>A Study of Perception Towards Cashless Payment Among Retail Banking Customers in Jalna District</b>	<b>Dr. Sandip Gulab Rathod</b>	<b>114</b>
13	<b>Mobile Device Optimization: Empowering Online Shopping Through Smartphone Usage</b>	<b>Dr. Diwakar D. Kadam</b>	<b>122</b>
14	<b>A Study of Digital Payments Instruments and Its Usage in India</b>	<b>Dr. Vijaysing B. Pawar</b>	<b>131</b>
15	<b>Role of Online Banking System in the Cashless Economy of India</b>	<b>Dr. Mudiraj Narendra B.</b>	<b>139</b>
16	<b>A Study of Numerous Investment Avenues in India</b>	<b>Aarti Krishna kale Dr. Vani Nikhil Laturkar Dr. Amarpreet Kour Randhawa</b>	<b>143</b>
17	<b>A Study on Impact of Digital Marketing on Sale of Products and Services</b>	<b>Dr. Suresh S. Kashide</b>	<b>154</b>
18	<b>Effects and Current Trends of E-Commerce and Digital Payments</b>	<b>Dr. Saddam R. Sayyad</b>	<b>160</b>
19	<b>A Study on Customers Perception on Digital Banking And Its Impact on Banking Activities W. R. T. Upi Banking</b>	<b>Rotte Sai Akash</b>	<b>168</b>
20	<b>Digital Banking Tools: An Overview</b>	<b>Dr. Atish U. Rathod</b>	<b>180</b>
21	<b>Use of UPI By MSRTC and Customer Satisfaction</b>	<b>Dr. Sarsare S. M.</b>	<b>186</b>
22	<b>Technological Innovation in Banking- After Economic Reforms</b>	<b>Dr. Ganesh N. Bokare</b>	<b>194</b>
23	<b>A Study on Digital Transactions and Its Impact on Business</b>	<b>Dr. Shyamsingh V. Raghuwanshi Prof. Dr. S. J. Jadhav</b>	<b>204</b>
24	<b>The Impact of E-Commerce on Traditional Business Models in India</b>	<b>Dr. Parik Meena R.</b>	<b>208</b>

25	<b>Digital Banking in India</b>	<b>Mr. Suyog S. Manwatkar</b>	<b>216</b>
26	<b>A Study of Digital Marketing</b>	<b>Ms. Sarita B. Kadam</b>	<b>222</b>
27	<b>UPI – Digital India</b>	<b>Dr. Pawale Vasant Anandrao</b>	<b>228</b>
28	<b>Harmonizing Commerce: Exploring the Influence of Vocal Attraction in Voice-Enabled Devices</b>	<b>Dr. Bharti Pooja Yadav Arjun Singh Yadav</b>	<b>231</b>
29	<b>Quality Assurance in Future Trends of Indian Business Scenerio: Innovation, Sustainability, Technology and Growth W. R. T G20</b>	<b>Dr Priya Satsangi Reshma Shaji Saima Hasan Megha Sawardekar</b>	<b>238</b>
30	<b>An Analytical Study on the Use of Digital Tools in Maharashtra State Road Transport Corporation (MSRTC)</b>	<b>Arunkumar G. Hake Dr. Lalita M. Yadpalwar</b>	<b>253</b>
31	<b>Digital Payments</b>	<b>Mr. Ashok B. Sawade Dr. M. B .Biradar</b>	<b>259</b>
32	<b>A Study on the Role of Digital Marketing Trends in E-Commerce</b>	<b>Dr. Balaji Arjun Kamble Dr. Anil Sadashiv Zalake</b>	<b>265</b>
33	<b>The Study of Digital Marketing in India</b>	<b>Dr. Santosh B. Gaikwad</b>	<b>270</b>
34	<b>Digital Finance Revolution: Unraveling the Impact of Fintech on Traditional Banking</b>	<b>Umesh S. Solanke Prof. Dr. D. M. Khandare</b>	<b>273</b>
35	<b>Navigation the Digital Frontier: A Comparative Analysis of Fintech and Digital Banking Integration in India</b>	<b>Minakshi Kandari</b>	<b>283</b>
36	<b>A Brief Study of Digital Payments in the Pradhan Mantri Awas Yojana (PMAY)</b>	<b>Arunkumar G. Hake Amruta C. Sunkekar Dr. Lalita M. Yadpalwar</b>	<b>293</b>
37	<b>E-Banking: An Overview</b>	<b>Sapana A. Pupulwad</b>	<b>299</b>

<b>38</b>	<b>User's Perception and Challenges Towards Use of Plastic Money and Cashless Transactions</b>	<b>Dr. Swati Mehta</b>	<b>306</b>
<b>39</b>	<b>Problems and Prospects of Digital Marketing in India</b>	<b>Mr. Donde Anil Bhimrao</b>	<b>334</b>
<b>40</b>	<b>Digital Payment System in India: Opportunities and Challenges</b>	<b>Sandeep B. Jadhav</b>	<b>339</b>
<b>41</b>	<b>The Landscape of Digital Marketing in India: Trends, Challenges and Opportunities</b>	<b>Mr. Atram Shubham Bhaskarrao</b>	<b>344</b>
<b>42</b>	<b>Women Empowerment Through the Digital Transaction and Financial Management of Rural Areas Special Reference With Kolhapur District</b>	<b>Jyoti Laxman Tarode</b>	<b>351</b>
<b>43</b>	<b>Digital Payment Adoption and Implications: A Case Study of Latur District</b>	<b>Dr. S. V. Dongare N. L. Kshirsagar</b>	<b>358</b>
<b>44</b>	<b>Our Contributor's</b>		<b>367</b>

## **Digital Trends in Working Capital Management: A Study With Special Reference to MSME Industries**

**Dr. Vijay Uttarwar**

### **Abstracts:**

Working capital management refers to managing finances for current liabilities in the firms, for micro, small and medium industries it is always a difficult challenge in managing working capital. Effective working capital management is crucial for maintaining the financial health and stability of a company by ensuring that it has the necessary resources to operate efficiently and seize opportunities for growth. Generally financial capabilities of MSMEs are not strong, making them less competitive as compared to more organised larger industries. In this research paper, an attempt has been made to explore digital trends for financing working capital liabilities through factoring, forfeiting & bill discounting. Government of India through ministry of micro, small & medium Industries has taken many such initiatives which are really helpful for firms.

**Keywords:** Bill discounting, Invoice financing, digital trends in Invoice financing.

### **Introduction:**

Micro, Small & Medium enterprises act as back bone for Indian economy by significantly contributing to overall GDP, overall Exports, Employment and lot of other economic parameters. It must be noted that traditionally they have limited access to financial solutions but government of India along with private players has brought many easy to adopt solutions that suits the requirements of MSME's.

### **Objective:**

The objective of this research paper to review theatrical framework of working capital management and appreciate digital trends for financing working capital liabilities for micro small and medium enterprises through exchanges.

### **Methodology:**

In this research paper, exploratory design is adopted where secondary data relating to working capital management for micro small and medium industries is collected and analysed. Digital

trends for financing are further explored. A mechanism is understood and assessed for its application to MSMEs through digital mode. The paper is based on secondary data sources consisting of online and offline data sources. A structured way is adopted to systematically explain application of digital trends in working capital management for micro, small and medium industries. Conclusions are drawn after detailed study of existing system and comparing it with digital system. Conclusions are made especially for MSME's.

### **Functions of Working Capital Management**

Working capital management involves managing a company's short-term assets and liabilities to ensure smooth operations and maximize profitability. The primary functions of working capital management include:

1. **Cash Management:** Ensuring that the company has sufficient cash to meet its day-to-day operational needs while minimizing idle cash that could be invested elsewhere. This involves managing cash flows, forecasting cash requirements, and optimizing cash balances.
2. **Inventory Management:** Balancing the level of inventory to ensure that enough stock is available to meet customer demand without tying up excess capital in unsold inventory. This includes inventory control, forecasting demand, managing inventory turnover, and minimizing carrying costs.
3. **Receivables Management:** Managing accounts receivable to optimize the collection process and minimize the time between sales and cash receipt. This involves establishing credit policies, monitoring customer creditworthiness, invoicing promptly, and following up on overdue payments to reduce bad debts and improve cash flow.
4. **Payables Management:** Managing accounts payable to ensure timely payment of obligations while maximizing the use of trade credit and minimizing costs. This may involve negotiating favorable payment terms with suppliers, taking advantage of early payment discounts, and managing payment schedules to optimize cash flow.
5. **Short-term Financing:** Arranging short-term financing to cover temporary cash shortfalls or fund working capital needs. This

may include bank loans, lines of credit, trade credit, factoring, or other forms of short-term borrowing.

6. **Working Capital Forecasting:** Forecasting future working capital needs based on sales projections, seasonal variations, and other factors to ensure that the company maintains adequate liquidity to support its operations.
7. **Risk Management:** Identifying and mitigating risks associated with working capital management, such as liquidity risk, credit risk, interest rate risk, and operational risk. This involves implementing appropriate risk management strategies and monitoring key risk indicators.
8. **Optimizing Working Capital:** Continuously reviewing and optimizing the level of working capital to strike the right balance between liquidity, profitability, and risk. This may involve implementing efficiency measures, streamlining processes, and leveraging technology to improve working capital management practices.

### **Challenges for MSME**

Micro, Small, and Medium Enterprises (MSMEs) in India face several challenges in the field of financial management, hindering their growth and sustainability. Some of these challenges include:

1. **Limited Access to Formal Financing:** Many MSMEs struggle to access formal sources of financing such as bank loans due to lack of collateral, credit history, or documentation. They often rely on informal sources of financing, which can be expensive and unsustainable in the long term.
2. **High Cost of Borrowing:** Even when MSMEs manage to secure financing, they often face high interest rates and fees, making it difficult to afford borrowing. This can erode profitability and hinder investment in growth and expansion.
3. **Working Capital Management:** MSMEs frequently grapple with effectively managing their working capital, including cash flow, inventory, and receivables. Inefficient working capital management can lead to liquidity problems and operational disruptions.



4. **Delayed Payments:** Delayed payments from customers, particularly large corporations and government agencies, are a common challenge for MSMEs. This can strain their cash flow, impede business operations, and increase the risk of default on their own obligations.
5. **Lack of Financial Literacy and Expertise:** Many MSME entrepreneurs have limited financial literacy and lack the necessary expertise to manage their finances effectively. This can lead to poor decision-making, inadequate financial planning, and vulnerability to financial risks.
6. **Regulatory Compliance Burden:** MSMEs in India must comply with various regulatory requirements related to taxation, accounting standards, and reporting obligations. Meeting these compliance requirements can be time-consuming and costly, especially for small businesses with limited resources.
7. **Technology Adoption:** Many MSMEs lag behind larger enterprises in adopting modern financial management tools and technologies. Limited access to affordable technology solutions hampers their ability to streamline processes, improve efficiency, and make data-driven decisions.
8. **Competition from Larger Players:** MSMEs face intense competition from larger corporations with greater financial resources and economies of scale. This competitive pressure can squeeze profit margins and limit the ability of MSMEs to invest in innovation and expansion.

Addressing these challenges requires concerted efforts from policymakers, financial institutions, industry associations, and MSMEs themselves to improve access to finance, enhance financial literacy, streamline regulatory compliance, and foster a supportive business environment conducive to MSME growth and development.

### **Digital Trends for MSME's Capital Management**

In India, there are several exchanges and platforms that facilitate bill discounting for Micro, Small, and Medium Enterprises (MSMEs). These platforms provide a marketplace where MSMEs can sell their trade receivables (invoices) at a discount to financial institutions or investors in exchange for immediate cash flow. Some

of the prominent exchanges for bill discounting of MSMEs in India include:

1. **Trade Receivables Discounting System (TReDS):** TReDS is an electronic platform introduced by the Reserve Bank of India (RBI) to facilitate the financing of trade receivables of MSMEs. It provides a transparent and efficient mechanism for MSMEs to discount their invoices and receive early payment from banks and other financial institutions. Some of the major TReDS platforms operating in India include:
  - Receivables Exchange of India (RXIL)
  - M1xchange
  - Invoicemart
2. **Mynd Solutions:** Mynd Solutions is a fintech company that offers bill discounting services to MSMEs through its online platform. It connects MSMEs with a network of financial institutions and investors willing to purchase their trade receivables at a discount, providing them with immediate liquidity.
3. **Lendingkart Finance:** Lendingkart Finance is a digital lending platform that provides working capital financing solutions to MSMEs, including bill discounting. It offers an online platform where MSMEs can apply for financing and discount their invoices to meet their short-term funding needs.

These platforms play a crucial role in improving access to working capital financing for MSMEs by providing them with alternative sources of funding and enabling them to unlock the value of their trade receivables. However, it's essential for MSMEs to carefully evaluate the terms and conditions of bill discounting arrangements and choose reputable platforms that offer competitive rates and reliable services.

The operation of exchanges for bill discounting, such as TReDS platforms, involves multiple parties, including MSMEs, buyers (usually larger companies), sellers (MSMEs' suppliers), financiers (banks, NBFCs), and the TReDS platform itself. Here's how these platforms typically work:

1. **MSMEs Registration:** MSMEs register themselves on the TReDS platform by providing necessary documentation and undergoing the verification process.

2. **Seller Uploads Invoices:** Once registered, MSMEs (sellers) upload their trade invoices onto the TReDS platform. These invoices represent the receivables owed to them by their buyers (usually larger companies).

3. **Buyer Confirmation:** The buyer (debtor) validates the invoices uploaded by the seller on the TReDS platform. This confirmation is crucial as it authenticates the legitimacy of the invoices and the amount owed.

4. **Auction Process:** After validation by the buyer, the invoices are listed for auction on the TReDS platform. Financiers (banks, NBFCs) review these invoices and participate in the auction by offering to discount them at a certain rate.

5. **Discounting and Funding:** Once the auction closes, the winning financier(s) purchases the invoices at a discount from their face value. The discount rate is determined based on various factors, including the creditworthiness of the buyer and the risk associated with the transaction.

6. **Payment to Seller:** The financier(s) disburses the discounted amount to the seller's bank account, providing immediate liquidity to the MSME. The financier(s) then become entitled to receive the full payment from the buyer on the maturity date of the invoice.

7. **Payment Settlement:** On the due date, the buyer settles the invoice payment directly with the financier(s) on the TReDS platform. The financier(s) receive the full invoice amount from the buyer, thereby completing the transaction.

8. **Platform Fees:** The TReDS platform charges fees for facilitating the transaction, which are typically deducted from the discount received by the seller or paid by the financier(s).

Overall, TReDS platforms streamline the bill discounting process by digitizing and automating various steps involved in invoice financing. They provide MSMEs with an efficient mechanism to convert their trade receivables into immediate cash flow, while also offering financiers an opportunity to invest in short-term, low-risk assets backed by authentic invoices. This enhances liquidity for MSMEs, strengthens their working capital position, and promotes smoother business operations.

### **Conclusion:**

It can be concluded that, digital trends in working capital financing are designed according to requirements of micro, small and medium enterprises. It provides additional capabilities to the

firms as they need not to provide additional collateral and invoices sent by them act as collateral. It offers lot Convenience to firms as it can be done with the help of mobile phone only. It is secured way of financing and operated as like exchange in stock market, as it executed over internet and with few simple steps and checks, financing is done in one to two working days making it faster way to get finance. Digital trends enable invoice financing to trade over exchange, this mechanism allows access of your credit requirements to multiple lenders over internet in a transparent way. As there are many lenders so it stimulates healthy competition amongst them. This competition is helpful for borrower as interest rates offered by lenders will become competitive. It can be concluded from research that MSME's should be aware of such trends and should take maximum benefits offered due to latest digital trends.

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## **Increasing Brand Awareness in the FMCG Sector Through Digital Marketing**

**Aparna Singh**

### **Abstract:**

Today's age has developed the habit of endlessly scrolling through social media feeds in an attempt to find something new, while marketers strive to stand out from the competition in order to promote their goods. By putting the brand in the forefront of customers' minds, brand awareness can be developed. The Fastest Moving Consumer Goods (FMCG) industry is one of the market's fastest-growing and most essential industries. As more and more new competitors enter the market, it's also becoming more and more fierce. As a result, by using digital media to promote their brand, marketers are attempting to reach their intended position. Through the use of digital marketing tactics, marketers may effectively and economically promote their products in the marketplace and raise consumer awareness of their brands. This paper aims to investigate the development of brand awareness in the FMCG sector through digital marketing, along with the reasons behind its significance and the range of tactics available to marketers seeking to raise their brand recognition through digital channels in the FMCG sector.

**Keywords:** Brand Awareness; Brand Knowledge; Consumer Behaviour; Digital Marketing; FMCG Sector

### **Introduction:**

Advertising that is done through digital platforms that allow businesses to communicate with clients around-the-clock is known as digital marketing. Customization and openness in the marketplace are provided by digital marketing. With digital mode, which enables two-way communication and enhances brand equity from both the consumer and the company's financial standpoint, it is simple for marketers to retain ties with their clientele. Marketers are able to address the demands and requirements of their clients by interacting in a diverse and effective way. (Makrides, et. al., 2019). Digital advertising is a marketing tactic that boosts a company's worth in the marketplace and raises consumer brand awareness, both of which have a positive effect on the customer's brand equity. When it comes to digital advertising, content the main part since it is made in

accordance with the demands and specifications of the market's clients. Brand awareness serves as the distinguishing feature that sets a brand apart from competitors and helps it establish itself in the minds of consumers. (Alamsyah, et. al., 2021).

### **Review of Literature:**

Koushik Talukdar; Malay Kumar Ghosh,(2021): Study on Brand Awareness towards FMCG companies at COVID-19 time FMCG sector showed high growth and development regarding their awareness level of brand towards customers.

K. Punithavathi February, (2019): Influence of brand knowledge and brand awareness on different stages of buying decision process among rural customers Rural customers had knowledge regarding brand attributes. Loyal customers focus on need recognition and information search.

Zohaib Anwar; Mohammed Ali,( 2017): Identification of the number of determinants that affect behaviour or conduct of customer Brand Awareness had relationship with Brand Loyalty. Customer Satisfaction had relationship with brand loyalty. Brand Awareness had relationship with customer satisfaction.

Illuminanda Vivien R. Domingo; Robert U. Lao; Ronaldo A. Manalo May,( 2015): Effect of brand image and brand awareness on usage of products and buying habits of customers No correlation between brand association and brand image but both had significant effect on product usage and insignificant effect on buying habits among customers.

Wasib Bin Latif; Md. Aminul Islam; Idris Mdnoor ,( 2014): To explore PSESAI model towards consumers PSESAI stands for Positioning the Brand, Sponsorship, Event, Marketing, Sports Marketing, Advertising of Brand and Integrated Marketing Communications.

Mr. R. Raj Kumar (2014): Reach of brand extension and development of awareness index and measurement of level of awareness. Reach of brand extension is found to be satisfactory with the level of awareness among the consumers.

Dr. Muhammad Ehsan Malik; Muhammad Mudasar Ghafoor; Hafiz Kashif Iqbal, (2013): Effect of Brand Awareness and Brand Loyalty have strong positive association with purchase intention

Brand Awareness and Brand Loyalty had strong positive association with purchase intention.

Nazli Alimen July, (2010): Impact of gender, education, brand consumption on consumer's brand knowledge Significant difference found with respect to gender. Female had more brand knowledge. Whereas, brand consumption results in increasing both brand awareness and brand image.

Hanna Bornmark, Asa Goransson, Christina Svensson, (2005): Difference between buying behaviour and culture, factors besides brand awareness affect the choice of brand Brand was a sign of security and safe decision making. Quality was the most important factor for brand choice both at the first purchase and the purchase today.

### **Objectives & Research Methodology:**

The study is being undertaken with the following aims in mind:

1. To research how the FMCG industry uses digital marketing to build brand awareness
2. To examine the significance of digital marketing in building FMCG brands' recognition
3. To ascertain the best methods for raising brand awareness in the FMCG sector using digital marketing.

The study employs secondary data derived from extant literature, which is sourced from books, journals, websites, blogs, blogspots, and other print and digital media. The nature of the investigation is conceptual. The goals are met, and then a conclusion is drawn from that.

### **Increasing brand awareness in the FMCG sector through digital marketing:**

FMCG products involve those products which have smaller shelf life and are of regular used items. (Shastri, 2022). The FMCG sector is made up of many different brands that are all fiercely competitive. To keep clients for longer, they are all making every effort to provide the best goods and services possible. This includes giving them the needed quality goods and services. Digital marketers engage with their target audience using a customized marketing technique to foster greater brand loyalty. (Walgrave, 2020). Digital marketing is a medium of communication which is used by the

marketers to reach their target audience whether directly or indirectly. (Yuvaraj & Indumathi, 2018). With the help of digital media, brand awareness can be created by marketers through notifications, convincing and reminding the consumers regarding brand. (Isoraite, 2016) Digital marketing creates the value among the customers by delivering better content regarding their FMCG brands which further helps in developing brand awareness among the customers. With collaboration with e-commerce tools, the marketers can sustain their brand in the market for longer period of time.

### **Importance of Digital Marketing in Creating Brand Awareness of Fmcg Brands:**

Differentiating their items from competitors' brands in the market would be a straightforward task for marketers. Moreover, digital marketing offers a creative platform for brand display that enables companies to raise consumer awareness of their FMCG products. Digital marketing lowers the cost of market advertising through digital platforms, giving marketers more opportunity to analyze consumer behavior and, ultimately, enhancing the return on investment of branding strategies. Digital marketing has shown to be beneficial for tracking purchase behavior, which can serve as the foundation for demand forecasting in the future and help marketers raise customer awareness of businesses based on their preferences. By promptly receiving customer feedback, digital marketing can assist marketers in strengthening their bonds with clients. Digital marketing platforms facilitate contact between advertisers and consumers, allowing advertisers to raise consumer awareness of their brands.

### **Strategies For Increasing Brand Awareness Using Digital Mechanism in Fmcg Sector:**

One of the key tactics for increasing brand awareness in the FMCG sector through digital media is content creation. The secret to successful content creation is not only to create it, but also to show it on social media platforms in an acceptable way. These days, content marketing raises consumer awareness by sticking in their brains for extended periods of time through visually appealing movies or jingles. Another cutting-edge tactic that companies can use to grow their consumer base is influencer marketing. Another way to build stronger, longer-lasting relationships with customers and boost their



brand loyalty on digital platforms is through automated email marketing. Another creative way to reach the target market in the FMCG sector is to evaluate brand success by managing and controlling the brand's online reputation. Customers can also be made aware of FMCG brands through digital ads in multiple regional languages. Digital contact can reduce the distance in communication between marketers and customers, allowing for the affordable sharing of information. (Pepper, 2022).

### **Discussion and Conclusion:**

Digital Marketing is one of the prominent mechanism through which marketing goals can be achieved in well desired manner. (Sya'idah, et. al., 2019). Promotion plays a major role in increasing the sales of FMCG Brands in the market because these products are the necessity of today's generation. (Isoraite, 2016). The marketers can easily promote their goods and services by reaching the target market through digital mechanism. It would be feasible for the companies to win the trust of the customers through digital mode which will help in increasing the brand loyalty among customers towards products and services. (Krishnaprabha & Tarunika, 2020). Digital market increases the feasibility to reach the customers without physically meeting them. (Yuvaraj & Indumathi, 2018).

These days' customers are more inclined towards their digital screens rather than traditional means of advertising such as newspapers, radio, television etc. and this has gained due importance after COVID Pandemic which forced the people to stay at their homes without physical movement from one place to another. As we all know FMCG Sector deals with necessities of consumers which are served through online modes and in this way, FMCG Sector showed a growing trend of creation of brand awareness among the customers through digital mechanisms. Digital marketers of FMCG Brands not only attract the customers to purchase their brand but also create loyal relationships with them. (Rhea, 2021) For the developing country like India, it is important to develop the digital talent with digital speed which will help in boosting the brand awareness among the customers by keeping the eye on them regarding their preference and behaviour towards the brand and which further require insights into data analytics, warehousing of

data, marketing information system, automation of marketing and so on. (Mediaqart, 2022).

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**Chapter: 03**  
**Recent Trends in Digital Marketing**

**Dr. P. L. Harale**

**Abstract:**

The term digital marketing is commonly known as online marketing or in other words it is termed as internet or web marketing. The study significantly reveals the concept of digital marketing that is marketing through various digital platforms like mobile phone application and other similar forms. It also focuses on trends in digital marketing and its reach among consumers.

**Key Words :** Digital Marketing, Concepts, Emerging trends.

**Introduction :**

Digital Marketing paves way for introducing the products among the consumers through a digital platform like mobile phone application and other similar channels. Over the past years technology has become an inevitable part of peoples day today life and it is for the same reason the businesses are making use of such technology to promote their products and services.

**Objectives :**

The following were the objectives of the study.

- To understand the concept of Digital Marketing.
- To examine emerging trends in Digital Marketing.

**Methodology :**

The Paper is based on secondary data that have been collected from internet, magazines, Journals and books.

**Concept of Digital Marketing :**

The term digital Marketing is commonly known as online marketing or in other words it is termed as internet or web marketing. People have a wide knowledge about the desired product or services due to their involvement in various social media and other likely platforms which not only helps them to gather information about the products but also paves way to share their opinion on the same. Marketing through digital platform is now a days considered to be an important strategy of marketing irrespective of the size of the business. If the business prioritizes digital marketing in the right place it may succeed in its endeavour. Digital marketing helps to build a strong relationship between the business

and consumer. Businesses are giving huge importance to digital marketing and are also spending larger sum on it. The target consumers for online business are people living in metro cities who will contribute in brand building. Digital marketing has the capability to generate the sales which in term will lead to brand recognition and brand loyalty. Digital marketing has become a need in every business and a great platform to market the goods and services.

### **Digital Marketing Trends :**

Some of Emerging trends in Digital Marketing are discussed below :

#### **Influencer Marketing :**

Influencer Marketing is a digital marketing strategy where business partner with individuals with a significant social media presence to promote there products and services. It allows companies to improve their brand presence and reach a large audience on social media.

#### **Omni Channel Marketing :**

Omni Channel Marketing is a marketing tactic that ensures customers engage and have a positive experience on each channel. It maps customer personas and considers the Journey a customers takes with a brand across various platforms and devices to create an exceptional customer experience throughout the buyers Journey. In India, Omni Channel Marketing not limited to social media, providing QR codes in physical shops and E-Commerce websites for payment.

#### **Artificial Intelligence :**

Artificial Intelligence is the process of developing intelligent computer system. AI is used across industries to identity the needs and demands of customers, automatic a business process and gain a competitive advantage. Additionally it is used to discover buying behavior Patterns and monitor and formulate excellent marketing strategies.

#### **Video Marketing :**

Video Marketing is a potent digital marketing tool for business trying to increase their customer base. They are easy to consume, appealing and informative making them a digital marketing trend.

### **Long Form Content :**

Long Form Content can offer the audience in-depth and wide information about a product, brand or service, many B2B (business to business) and B2C (business to consumers) Marketers have learned that long form content can be more effective than Short-form content, marketing it a digital marketing trend.

### **Progressive web pages :**

Progressive web pages are online websites that send push notification, load faster than other web pages and are accessible offline. The Progressive web page has addressed the need for websites with excellent user interfaces.

### **Mobile Optimisation :**

Marketer trying to expand their brands visibility and reach online are considering mobile optimization. It helps them deliver engaging mobile browsing experiences to their users mobile optimisation can become a crucial marketing strategy to attract a target audience to your mobile app.

### **Search Engine Optimisation (SEO) :**

In this modern age business must ensure that their website and content are discoverable on SERP, Providing long term and short term traffic returns while SEO is not new its becoming more ingrained in to modern day marketing strategies.

### **Online Market Place :**

The constant updates in social media algorithms have helped brands to setup an online market place to sell their good and service directly to their target audience. The social media market place has helped brands connect with a global audience.

### **Branded Content :**

Branded content refers to content that does not involve traditional advertising. It can include articles, videos, and podcasts that bring relevant value to customers. Unlike advertisements, that focus on selling, branded content informs, educates, and inspires. Its main purpose is to drive engagement through content. It more focused on building conversation around the brand.

### **Conclusion**

Digital Marketing has taken the marketing strategies of business to the next level. Business hugely depends on the digitally platforms to market their products and services as its pertaining to the trend and reaches the majority of the consumers.

Digital marketing trends play a pivotal role in shaping the success of modern business. By staying updated and implementing the latest trends, business can effectively engage with their target audience, enlarge brand visibility and drive revenue in the dynamic digital landscape.

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## **Ethics in Business: An Important Key Aspect of the Concern**

**Dr. Sonia Devi**

### **Abstract**

Ethical behavior contributes to personal flourishing and to human excellence in business. In addition, business ethics enhances corporate reputation and minimizes the risk of the souring of relations between society and the company. Society, which gives business license to operate, increasingly demands ethical and responsible conduct from firms. Employees expect fair treatment and consumers demand respect for their rights. Similarly, stakeholders are pushing for transparency, accountability, and responsibility. Individuals, social groups and governments are calling for ethical behaviors and responsible conduct from business organizations. To a great extent, leading companies around the world have already accepted this challenge, and ethics has become a feature in managing business. In practice, however, ethical dilemmas and practical difficulties can arise in decision-making as companies try to harmonize profits with social and ethical responsibilities, and these require solid bases and careful discussion. Ethics, morals principles, norms and values are disappearing at a very fast speed in such cut throat competition, and business too is being unethical these days. Latest cases and figures make the picture more clear. But before that see what is ethics its self is all about. Business ethics have been developed in recent decades as responses to a growing sense of corporate wrongdoing. Business ethics refers to the moral principles and standards and a code of conduct that businessmen are expected to follow while dealing with others .As we knows the good business relationship is a key factor of success of any business. So the ethical conduct builds trust among individuals, which validates and promotes confidence in business relationships. This paper deals with the role of ethics in modern business scenario. Business ethics is one of the important branches of applied ethics.

### **What is Business Ethics?**

**“A business or society that lacks ethical principles is**



**bound to fail sooner or later”**. Business ethics (also known as corporate ethics) is a form of applied ethics or professional ethics that examines ethical principles and moral or ethical problems that arise in a business environment. Business ethics simply we mean that the application of ethics in business. Earlier it was the opinion that a business cannot be ethical. This trend has been changed today. Today business has found out that they are, responsible for social welfare, since they live and operate within a social structure. In this present globalised economy; corporate social responsibility, corporate governance, ethical behavior becomes the important key factors of the concern. The study concentrates on how the modern businesses are accelerated by applying the code of conduct in the environment of the business. The article discusses the survival of modern in the present society. The results of this study would help the modern industries in achieving their targeted result in a smooth way. The existing companies can improve their practices and new business can comply with the results for better performance.

### **Purpose of the Study**

The purpose of the study is to contribute to the understanding of business ethics and particularly it reflects the modern business practice with the application of code of conduct. The study concentrates on how the modern businesses are accelerated by applying ethics in the environment of the business. The study also focuses on why the modern business needs the application of ethics in their survival in the society.

### **Definition of Business Ethics**

#### **According to Wheeler:**

“Business ethics is an art and science for maintain harmonious relationship with society, its various groups and institutions as well as reorganizing the moral responsibility for the rightness and wrongness of business conduct”.

### **Golden Rule of Ethics**

The Golden rule of ethics is often terms as “ethics of reciprocity.” it states “Do unto others as you would have them to unto you.” In others words, ‘treat others as would like to be treated, if you were them.’

### **Features of Business Ethics**

The characteristics or features of business ethics are:-

**Code of conduct:** Business ethics is a code of conduct. It tells what to do and what not to do for the welfare of the society.

**Based on moral and social values:** Business ethics is based on moral and social values. It contains moral and social principles (rules) for doing business. This includes self-control, consumer protection and welfare, service to society, fair treatment to social groups, not to exploit others, etc. **Gives protection to social groups:** Business ethics give protection to different social groups such as consumers, employees, small businessmen, government, shareholders, creditors, etc.

**Provides basic framework:** Business ethics provide a basic framework for doing business. It gives the social cultural, economic, legal and other limits of business. Business must be conducted within these limits.

**Voluntary:** Business ethics must be voluntary. The businessmen must accept business ethics on their own. Business ethics must be like self-discipline. It must not be enforced by law.

**Requires education and guidance:** Businessmen must be given proper education and guidance before introducing business ethics. The businessmen must be motivated to use business ethics. Trade Associations and Chambers of Commerce must also play an active role in this matter.

**Relative Term:** Business ethics is a relative term. That is, it changes from one business to another. It also changes from one country to another. What is considered as good in one country may be taboo in another country.

**New concept:** Business ethics is a newer concept. It is strictly followed only in developed countries. It is not followed properly in poor and developing countries.

**Some Activities That Come Under Unethical Practices:**

1. Cheating the customers (selling defective products)
2. Duplication and piracy.
3. Dishonesty
4. Manipulating people emotionally.
5. Hoarding or black marketing
6. Tax evasion and avoiding penalties
7. Manipulating business records
8. Harming the environment by exceeding govt. prescribed norms

for pollution.

9. Distortion of facts to mislead or confuse the buyer.
10. Adopting unfair trade practices.
11. All revenue in the business should be reported correctly but sometimes it is overstated just to present a better position which in fact is not the case.
12. It is unethical to misuse company funds. This can lead to the closure of the business and eventually leads to the loss of jobs and investments.
13. It is also unethical to use sensitive and confidential information for personal gains.

### **Ethics with various functional areas of business**

#### **Ethics in Finance**

Fairness in trading practices, trading conditions, financial contracting, sales practices, consultancy services, tax payments, internal audits, external audits, and executive compensation also fall under the umbrella of finance and accounting. Specific corporate ethical/legal abuses include creative accounting, earnings management, misleading financial analysis, insider trading, securities fraud, bribery/kickbacks, and facilitation payments.

#### **Ethics in Human Resource Management**

Human resource (HR) management involves recruitment selection, orientation, performance appraisal, training and development, industrial relations and health and safety issues. Discrimination by age (preferring the young or the old), gender, sexual orientation, race, religion, disability, weight, and attractiveness are all ethical issues that the HR manager must deal with.

#### **Ethics in Sales and Marketing**

Ethical marketing issues include marketing redundant or dangerous product/services dangerous products/services; transparency about environmental risks, product ingredients (genetically modified organisms), possible health risks, or financial risks; respect for consumer privacy and autonomy; advertising truthfulness; and fairness in pricing and distribution. Marketing ethics involves pricing practices, including illegal actions such as price fixing and legal actions including price discrimination and price skimming **Ethics in Advertisement** Respect Truthfulness:

Do not distort the truth by implying things that are not so or withholding relevant facts. Respect the Dignity of Each Human Person: Give special care to the Weak and vulnerable: children, young people, the elderly, the poor, and the culturally disadvantaged.

### **Ethics in Production**

Business ethics usually deals with the duties of a company to ensure that products and production processes do not needlessly cause harm.

### **Need for Ethics in Business**

Ethical considerations are as important in management as in any other occupation. In the field of morality, personal life is not separate from business life. Business ethics is currently a very prominent business topic, and the debates and dilemmas surrounding business ethics have tended to attract an enormous amount of attention from various sections. Since the business exists and operates within the society and is a part of subsystem of society, its functioning must contribute to the welfare of the society. To survive in the society a business must earn the social sanction of the society. Without social sanction, a business cannot earn loyal customers. The managers of the biggest companies know that as a business gets larger, the public the public takes more interest in it because it has a greater impact on the community. The antennae of these managers are tuned to public opinion and they react to it. They seek to maintain a proper image of their company in the public mind. This leads to the assumption of greater social responsibilities.” The survival of any business requires two things. On the one hand it must be go in line with profit maximization and on the other hand it must satisfy the stakeholders. Within the parameters of stakeholders society can be considered one important among them. Ethical considerations are as important in the modern business practices. In the field of morality, personal life is not separate from business life. The social dimensions of business ethics cannot be overlooked because many problems arise from the relationship of business to the broader society. Business needs to remain ethical for its own good. Unethical actions and decisions may yield results only in the very short run. For surviving long term businesses require to conduct it ethically and to do its business on

ethical lines. The need for improvement of ethical behavior has become clear by way of some widely publicized cases. We have had a number of scam in India like 2G Spectrum scam, , Commonwealth Games Scam, Telgi Scam, Satyam Scam, Bofors Scam, The Hawala Scandal, IPL Scam, Harshad Mehta & Ketan Parekh Stock Market Scam etc. So, can we live a scam-free life in India for a while now? Who will give the answer? Therefore the ethics become very necessary to implement in the business activities. Not only the business organization but each and every individual should have the ethical behavior. At the present time there is not any alternative but to implement the ethical behavior.

### **Views of Various Committees and Officials regarding Social Responsibility**

In the development of corporate ethics, we have reached a stage where the question of the social responsibility of business to community can no longer be taken lightly. In the environment of modern economic development, the corporate sector no longer functions in isolation. If the plea of the companies that they are performing a social purpose in the development of the country is to be accepted, it can only be judged by the test of social responsiveness shown to the needs of the community by the companies. The company must behave and function as a responsible member of society, like any other individual. It cannot be escaped from moral values nor can it ignore actual compulsions. The real need is for some focus of accountability on the part of the management which is not limited to shareholders alone. In modern times, the objective of business has to be the proper utilization of resources for the benefit of other. A profit is still a necessary part of the total picture, but it is not the primary purpose. This implies that the claims of various interests will have to be balanced, not on the narrow ground of what is best for the shareholders alone but from the point of view of what is best for the community at large. The company must accept its obligation to be socially responsible and work for the larger benefit of the community.

### **Birla Committee Report**

The report of the Committee on Corporate Governance, set up by the SEBI under the Chairmanship of Kumar Mangalam Birla,

is the first formal and comprehensive attempt to evolve a code of Corporate Governance; in the content of prevailing conditions of governance in Indian companies as well as the state of capital markets. As per the report it is recommended that companies will also be required to disclose separately in their annual reports. Some of the recommendations were mandatory in nature. For the non-mandatory recommendations, the Committee hopes that companies would voluntarily implement these. The Committee, however, felt that under Indian conditions a statutory rather than a voluntary code would be far more purposive and meaningful. The Committee has identified the three key constituents of corporate governance as the shareholders, the Board of Directors and the Management, their roles and responsibilities in the context of good corporate governance.

### **Sachar Committee**

This Committee was formed by Government of India (1978) to consider and report on the changes that are necessary in the form and structure of the legislation. It was observed that the company must accept its obligations to be socially responsible and to work for the larger benefit of the community. The Committee further recommended the disclosure of social activities undertaken by the company on yearly basis and its future plans regarding same.

### **Cadbury Committee**

The Committee was set up in May 1991 by the Financial Reporting Council, the London Stock Exchange and the accountancy profession to address the financial aspects of corporate governance. The Committee laid down guidelines regarding the structure of Boards and code of best practice relating to it.

### **Conclusion and Suggestions**

India has always been borrowing management styles and systems from foreign lands, instead of developing her own management styles in consonance with her own cultural ethos; and drawing from her rich heritage and tradition as well as her ancient value-based culture. In Indian philosophy customers are considered as God himself. Serving the customer is equated with serving God. We the individuals are the creator of the nation and at the same time destroyer of the same. Therefore, to change the society first we

should change ourselves. Business Organization is established by the People, for the People, of the People. But this is not the situation in practical. As Mahatma Gandhi has rightfully said, - **“we are not doing the customer a favour by serving him, rather the customer is doing us a favour by giving us opportunity to serve him”**, In all cases the individuals stay at the forefront. If the people as employee of the organization want to do some welfare of the society, he has to set his mind influenced by the Code of Ethics. For ethical codes to be effective, provisions must be made for their enforcement. Unethical managers should be held responsible for their actions. This means that privileges and benefits should be withdrawn and sections should be applied. Although the enforcement of ethical codes may not be easy, the mere existence of such codes can increase ethical behavior by clarifying expectations. Effective code enforcement requires consistent ethical behavior and support from top management..

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## The Role of Artificial Intelligence and Machine Learning in Shaping Digital Banking Services

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### **Abstract:**

Digital banking services are being shaped by the sophisticated technologies of artificial intelligence (AI) and machine learning (ML). The application of AI and ML has become crucial in boosting customer experience, increasing efficiency, and reducing risks as the banking sector becomes more digitally integrated. This essay seeks to give a thorough summary of how artificial intelligence and machine learning are influencing digital banking services. The definition and main ideas of AI and ML are covered in the first section of the paper. After that, it examines the body of research on the application of AI and ML in digital banking, noting research gaps and obstacles that banks must overcome to put these tools into practice. The study also identifies the shortcomings of ML and AI in digital banking and makes recommendations for further investigation. Finally, the paper concludes that AI and ML will continue to play a crucial role in shaping the future of digital banking services.

**Key Words:** Artificial Intelligence, Machine Learning, Efficiency, Risks and Digital Banking.

### **Introduction:**

The emergence of digital banking services has brought about considerable changes to the banking sector in recent years. Banks must adapt to the digital age as more and more customers are turning to internet and mobile banking systems for their financial needs. Because of this, banks are using cutting-edge technology like machine learning (ML) and artificial intelligence (AI) to improve their online banking offerings.

Although AI and ML are two different technologies with different applications, they are frequently used interchangeably. Artificial intelligence (AI) is the emulation of human intellect in machines, allowing them to carry out activities like language comprehension, problem solving, and decision making that normally



need human intelligence. However, machine learning (ML) is a subset of artificial intelligence that uses statistical models and algorithms to analyze data without the need for explicit programming. Machine learning (ML) is an important technique in the banking sector since it enables machines to perform better over time.

A new era of innovation and transformation has been brought about by the banking sector's integration of Artificial Intelligence (AI) and Machine Learning (ML) technology, which has shaped the landscape of digital banking services. Artificial Intelligence (AI) has completely changed how banks manage financial services and engage with their clients by analyzing large amounts of data and predicting customer behavior. Banks are now able to provide specialized solutions, increase operational effectiveness, and boost decision-making procedures thanks to machine learning algorithms.

The banking sector has seen a paradigm shift in recent years toward what is commonly known as Banking 4.0, where artificial intelligence (AI) is a key component in redefining operational strategy and client experiences. AI has had a significant impact on banks in the modern era, resulting in the development of individualized services, effective Know Your Customer (KYC) procedures, improved risk assessment tools, and increased fraud detection capacities.

In order to remain competitive and satisfy the changing demands of tech-savvy consumers, banks must embrace AI technologies as they manage the complexity of a quickly changing digital ecosystem. This study explores the various applications, advantages, difficulties, and potential future developments that artificial intelligence (AI) and machine learning (ML) bring to the forefront of the banking sector.

### **Literature Review:**

In-depth research has been done in the literature on the application of AI and ML in digital banking services. Customer service is one of the primary uses of AI and ML in digital banking. In the banking sector, AI-powered chatbots are growing in popularity because they can manage basic transactions and offer round-the-clock client service. This enhances the client experience

while also lightening the workload of human workers, freeing them up to concentrate on more difficult jobs.

Fraud detection and prevention is another field in which artificial intelligence and machine learning have made a big difference. These technologies are being used by banks to examine client data and find any odd trends or transactions that might point to fraud. As a result, neither the bank nor its clients suffer financial losses.

Customers' financial services are also being made more unique for them by using AI and ML. Banks are able to provide customized financial advice and product recommendations by evaluating consumer data. This helps the bank increase income by enhancing client happiness and facilitating cross-selling and upselling.

Digital banking services have seen a dramatic transformation as a result of the banking industry's adoption of AI and ML technology. The impact of artificial intelligence (AI) on the banking sector is shown by research by Kaur et al. (2020), which shows how AI systems monitor and forecast consumer behavior to create personalized solutions. Furthermore, the NCBI's comprehensive literature review from 2022 highlights important study themes that illustrate how AI is used in banking, highlighting the various uses and advantages of AI technology in the industry.

Moreover, Appinventiv (2024) provides valuable insights into the strategic use of AI in banking, highlighting the significance of formulating an enterprise-level AI strategy that is congruent with company objectives and values. The paper also emphasizes how important it is to continuously monitor and calibrate AI models in order to guarantee cybersecurity and operational effectiveness in digital financial services.

Furthermore, Zuci Systems (2024) explores the potential applications of AI and ML in banking, emphasizing how cutting-edge technologies are reshaping the industry through applications in process automation, marketing, financial risk management, and data management. The blog focuses on how important AI and ML are to banking companies' ability to provide better financial services, better client experiences, and increased operational efficiency.

The comprehensive influence of AI and ML in banking is examined in a thorough literature analysis by ResearchGate (2021), demonstrating the revolutionary potential of these technologies in changing banking processes and client relations. The assessment emphasizes the necessity of conducting additional research to examine particular facets of artificial intelligence application in digital banking services, including strategies for holistic transformation and operational integration.

### **Research Gap:**

Although a lot of research has been done on the application of AI and ML in digital banking, little is known about how these technologies may influence banking services in the future. There is a dearth of research on the long-term potential effects of AI and ML, despite the fact that many studies concentrate on their present uses in banking. Further research is also required to look at the moral ramifications of utilizing AI and ML in banking, including issues with algorithmic biases and data privacy.

The gaps in the literature on the use of AI technologies in digital banking services, based on the provided sources, include:

#### **1. Comprehensive Understanding:**

Although there are thorough evaluations of the literature on AI use in banking, more in-depth research is still required to fully examine the consequences, difficulties, and advantages of implementing AI in digital financial services.

#### **2. Specific Focus on Machine Learning:**

Further investigation is necessary to completely explore the implications, challenges, and benefits of integrating AI in digital financial services, despite the fact that the literature on the subject has been thoroughly evaluated in the banking industry.

#### **3. Holistic Transformation:**

The literature highlights how AI has the potential to revolutionize the banking industry, but it falls short of providing specific insights into the kind of comprehensive organizational change needed to successfully incorporate AI technology and overcome the obstacles associated with their adoption.

#### **4. Operational Integration:**

Further research on operational strategies for AI integration in banking is necessary because there is a knowledge gap regarding

how banks can seamlessly integrate AI technologies across various operational layers to achieve higher profits, personalized services, unique Omni channel experiences, and faster innovation cycles.

These gaps indicate areas that could benefit from more research to improve our knowledge of how AI technologies affect digital banking services. Such research could concentrate on deep insights, particular ML elements, holistic transformation, and operational integration methods in banking businesses.

### **Challenges:**

There are difficulties in integrating AI and ML into digital financial services. A primary obstacle in the banking sector is the dearth of proficient personnel who possess the ability to comprehend and apply these technologies efficiently. Because of this, banks must spend money on employee training and upskilling. The high cost of integrating these technologies is another difficulty, especially for smaller banks with tighter budgets.

Based on the sources listed, banks can use the following tactics to overcome the difficulties associated with integrating AI technologies into digital banking services:

#### **1. Data Privacy and Security:**

Prioritizing data privacy and security should be a top priority for banks, who should put strong cybersecurity measures in place to stop data breaches and safeguard sensitive client information.

#### **2. Ethical Considerations:**

In order to mitigate ethical issues such as discrimination in employment and judgment, financial institutions need to guarantee openness, impartiality, and fair AI systems.

#### **3. Regulatory Compliance:**

Banks must ensure that their AI systems comply with regulatory standards in order to traverse the stringent rules and compliance requirements, particularly with regard to the deployment of explainable AI algorithms.

#### **4. Cybersecurity Risks:**

Strong cybersecurity measures must be put in place to protect AI systems from cyberattacks and stop breaches that could expose private information.

Banks may successfully handle the difficulties involved with implementing AI technologies in digital banking services by concentrating on data protection, ethics, regulatory compliance, and cybersecurity.

**Some examples of successful implementation of AI technologies in digital banking services include:**

**1. Enhanced Customer Experience:**

By enabling consumers to open accounts from their smartphones and receive tailored financial offers, artificial intelligence (AI) in banking apps and services has improved the industry's customer focus and technological relevance.

**2. Efficient Know Your Customer (KYC) Processes:**

Artificial intelligence (AI) technology expedites approval procedures, decreases the time required to record KYC information, and evaluates eligibility for services like personal loans, all of which improve client convenience.

**3. Risk Assessment and Fraud Detection:**

By evaluating prior behavioral patterns and smartphone data to determine the likelihood of loan repayment failure, artificial intelligence (AI) in banking helps predict problematic applications and enhances risk assessment and fraud detection skills.

**4. Compliance and Regulatory Adaptation:**

Deep learning and natural language processing (NLP) are two AI and ML technologies used in banking that quickly read and adjust to new compliance standards, speeding up and streamlining compliance activities. These examples show how artificial intelligence (AI) has been effectively applied to digital financial services to improve risk management, optimize client experiences, and assure regulatory compliance.

**Limitations:**

There are restrictions on the application of AI and ML in digital banking, despite their numerous advantages. The possibility of biases and inaccuracies in the employed algorithms is one of the primary drawbacks. These technologies rely a lot on data, and discriminatory results may result from biased data utilization. Furthermore, because some jobs that were formerly performed by

humans are now automated, AI and ML may result in employment displacement.

The limitations of using Artificial Intelligence (AI) and Machine Learning (ML) in digital banking services include:

1. Data Quality:

There are difficulties since reliable and high-quality data are necessary for AI technology to operate efficiently.

2. Security Concerns:

Strong cybersecurity measures are necessary for banks to prevent data breaches and safeguard customers' private information.

3. Ethical Considerations:

Banks must address ethical concerns raised by AI systems, such as employment displacement and bias in decision-making, in order to ensure transparency and equity.

4. Regulatory Compliance:

Strict laws apply to banks, and the usage of AI may cause problems with compliance, particularly when using mysterious AI algorithms.

5. Cybersecurity Risks:

Because AI systems are susceptible to cyberattacks, robust cybersecurity measures must be put in place to stop intrusions.

These drawbacks show how crucial it is to take cybersecurity, ethics, compliance, security, and data quality into consideration when incorporating AI and ML into digital banking services.

**Future Research:**

Additional research is necessary to fully understand the potential applications of AI and ML in digital banking as these fields continue to develop. Further research is required to determine how these technologies will affect the banking sector in the long run and how best to apply them to boost productivity and customer experience. Research is also required to determine how to reduce potential hazards as well as the ethical ramifications of utilizing AI and ML in banking.

**Conclusion:**

In conclusion, the development of digital banking services now heavily relies on AI and ML. Numerous advantages are provided by these technologies, such as increased efficiency, better

customer experience, and reduced risk. But there are restrictions and difficulties as well, which must be taken into consideration. In order for banks to stay competitive in the world of digital banking, they must keep up with technological advancements and make investments in these new innovations. To completely grasp the potential of AI and ML in influencing the direction of digital financial services, more investigation is required.

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## Examining Customer Sentiments Regarding E-Wallet Payment Systems

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### Abstract:

In this age of rapid technological advancements, individuals readily embrace emerging technologies. Among the most valuable and innovative advancements is the advent of E-wallet payment systems. These digital wallets have streamlined online shopping and facilitated the convenient payment of utility bills. With initiatives such as the promotion of digital transactions by Indian railways for online train ticket bookings, E-wallet companies have actively sought to engage customers by offering diverse services. Although users routinely conduct their day-to-day transactions through various E-wallet services, their discussions about these products remain confined to their social circles. Furthermore, users demonstrate a willingness to swiftly adopt more disruptive alternatives to existing products. This paper presents findings from a survey of 125 respondents through a questionnaire, shedding light on the awareness levels among customers regarding electronic payment systems.

**Keywords:** E-Wallet, Digital Transaction, Smart Phone, Electronic Payment

### Introduction:

According to data from the Reserve Bank of India (RBI), there has been a remarkable surge in the number of transactions in recent years, signifying the widespread adoption of mobile wallets for daily financial activities. The volume and value of transactions conducted through mobile wallets have notably increased over the past year. Individuals engaging in these transactions typically belong to the realm of e-wallet payments.

To utilize payment services on smartphones, users are required to install a dedicated application known as a digital wallet, electronic wallet, or more commonly, a mobile wallet. Functioning akin to a traditional leather wallet, this digital counterpart facilitates the storage and digital payment of currency, involving a greater number



of parties directly or indirectly engaged in the digital platform. To avail of e-wallet services, customers must register with the specific e-wallet provider and preload a designated amount of money, which can then be utilized for various purposes such as shopping, recharges, and utility bill payments.

Crucially, the efficacy of e-wallet services extends beyond the smartphone and its installed mobile wallet. The entire process of sending and receiving money relies on a sophisticated network of intermediaries, encompassing banks, payment gateways, and mobile network operators.

**Customer Perception:**

**Convenience:** E-wallets offer unparalleled convenience to customers. They can make payments swiftly without the need to enter payment details repeatedly, leading to a frictionless checkout experience. This convenience enhances customer satisfaction and encourages repeat business.

**Security and Trust:** Customers perceive e-wallets as secure payment methods. The encryption and authentication features instill trust, assuring customers that their financial information is protected. This perception of security fosters confidence in using e-wallets for transactions.

**Rewards and Discounts:** Many e-wallet providers offer loyalty programs, cashback rewards, and discounts for using their services. Customers appreciate these incentives, creating a positive perception and encouraging them to choose e-wallets over traditional payment methods.

**Modern and Tech-Savvy Image:** Businesses that integrate e-wallets are perceived as modern, tech-savvy, and customer-oriented. This positive image attracts customers who prefer innovative and efficient payment solutions, enhancing the overall reputation of the vendor.

**Concept of Mobile wallets:**

The mobile wallet (m-wallet) term is formed from the concept of 'Digital Wallet'. The m-wallet technologies are virtual replacements of traditional physical leather wallets in which cash, debit, and credit cards are carried for making payments. It is an internet and application-based service. The penetration of smartphones along with the inexpensive 3G and 4G connections were the biggest factors that introduced the e-wallet system in India.

The latest data shows that India had around 1 billion mobile phone users in 2019 and 530 million in 2018 as compared to 240 million users in its previous year. (Singh, et al., 2020) In online transactions via bank account, a fee is charged for every transaction and the users have to enter the card details along with the password, every time they do the transactions. However, in m-wallets, there are no such charges and saves the user's time. (Jain & Singla, 2017) Moreover, m-wallet stores personal information and also keep records of the shopping receipts for future reference.

#### **Advantages of Mobile Wallets:**

1. **Reduces Fraud-** The personal information of the user such as debit and credit card number are kept secure in the m-wallet application with the help of encryptions and it is not disclosed. The application also uses biometric technology thus it reduces the frauds.
2. **Faster Mode of Payment-** Paying money using m-wallets is faster than cash or any other payment methods as it saves time.
3. **Discounts and Cashbacks-** For promoting the digital payments system E-wallet companies and governments provide various cashback discounts to the users. Paytm application provides various savings on the railway, flight, and movie ticket bookings.
4. **Helps in Tracking spending-** On m-wallets all the spending of the user is recorded thus maintaining a record of their budgets.
5. **No problem of Change-** The exact amount of money can be transferred from one account to another account.

#### **Major Providers of E-wallet Services in India:**

1. **Paytm-** Paytm is one of India's largest providers of m-wallets. It was introduced in 2010 and now has become one of the most used m-wallets of India. This company holds the RBI's license to create a payment bank account that allows providing current accounts and saving deposits.
2. **Google Pay-** Recently Google has introduced a digital payment application in India named 'Google Pay' which has gained much popularity among users. In just two years, this digital payment company has reached 67 million active users monthly, generating more than about \$110 billion in transactions annually. Google Pay enables the direct transfer of money from one bank account to another bank through mobile devices.

3. **PhonePe**- This mobile payment app was first introduced in December 2015. It enables sending and receiving money, recharges, making payments for utilities, and many more. It is very much popular among users as in December 2019 the app had crossed about 5 billion transactions.

**Review of Literature:**

Ramkumar (2018) explained, there are various factors such as ‘offers & discounts’, ‘synchronization of data’, ‘store locating’, ‘superior shopping experience’, and many more which influence the youngsters to use these digital wallets. In this study, the researcher has used Factor Analysis for segregating various variables that influence the users to adopt this technology into three factors “convenience”, “privacy” and “promotional mix”. According to this study, Paytm was the most preferred m-wallet followed by Airtel Money in the Chennai city. It states that m-wallets play a big role in digitalizing the economy, lowers the cost, and brings convenience.

Jain & Sabharwal (2019) stated that most of the transactions these days are done online through m-wallet applications. According to this study, the younger generation is more agile in shifting from traditional cash-based systems to electronic payments and are the major consumers of m-wallets. The study highlighted that legal formalities, low awareness, lack of trust, and security issues are some of the factors which discourage the usage of these m-wallets. The study analysed that age of people has a significant relation with the usage of E-Wallets but gender and occupation do not have.

Yadav & Arora (2019) aimed to assess the relationship between ‘customer satisfaction’, ‘problems with using m-wallets’, ‘solutions’, and ‘risks to boost their usage’ in their study which demonstrated that there is a significant relationship between customer satisfaction and the solutions in m-wallets. Whereas there is a negative impact between the problems of using m-wallets and satisfaction. Some of the limitations of this study were that the researchers had confined their data collection to Delhi and NCR region and there was no target audience for this study.

Chawla & Joshi (2019) examined consumer attitude and intention to use m-wallets. It is observed from this paper that people still prefer cash and debit cards over any digital payments. TAM and Unified theory of acceptance model were adopted in this paper. The

findings indicated that ‘perceived ease of use’, ‘perceived usefulness’, ‘trust’, ‘security’, ‘facilitating conditions’ and ‘lifestyle compatibility’ have a major impact on the attitude towards customers for using the m-wallets. The awareness level of people towards m-wallets are rising. Perceived ease of using m-wallets has a considerable direct effect on perceived usefulness and trust factor.

M.Nandhini & K.Girija (2019) analysed that, people have started to embrace the m-wallet payment system as an attractive and important alternative to other payment methods. Google Pay is a commonly used m-wallet service among respondents. Fast service is considered as the major factor influencing the customer’s preference. Moreover, ‘convenience’ and ‘cashback & discounts’ are the next important factors persuading people to use it. However, there are various obstacles to use these services, ‘network connectivity’ being the major issue. Moreover, the Chi-Square test was applied in the paper between the occupation and benefits of using m-wallets, the results revealed, there is a significant relationship between both the variables. A T-test was done on gender and customer’s opinion regarding the usage and it proved that there is a significant difference between them. This study was done in the area of Western Tamil Nadu.

Sharma & Kulshreshtha (2019), analysed that consumers are shifting their opinions regarding m-wallets, technology is advancing and younger generations are getting more attracted to these services. The study was done in Tier-2 & Tier-3 cities. One important observation of this study is that in these cities, males tend to use more m-wallets than females. Various factors were examined which influence the purpose to use m-wallets and classified every factor into convenience, safety, complexity, trainability, compatibility, quality of service, privacy, information availability, and ease of use by applying exploratory factor analysis.

Eappen (2019) aimed to understand how trust and information sharing shape the consumer’s use and adoption of m-wallets. The data was gathered from students of the University of Kerala. The findings presented that ‘trust’ is one of the important factors which influence adoption. There was seen a need to establish a customer’s confidence in driving the adoption. According to the researcher, ‘perceived usefulness’, ‘perceived ease of use’, ‘information

sharing’, and ‘trust’ positively affects the user’s intention. Lastly, the study also analysed that the sharing of personal information has been found to have a substantial effect on the purpose of adoption.

### **Research Gap:**

Despite the growing prevalence of E-Wallet usage in commercial transactions, there is a notable gap in empirical research that investigates the specific outcomes of E-Wallet integration on vendor performance and customer relationships. Existing studies often focus on the technical aspects of E-Wallet implementation or discuss the theoretical benefits without substantiating their claims through rigorous empirical analysis. Consequently, there is a need for an in-depth empirical study that assesses the actual impact of E-Wallet integration on vendor performance metrics, such as transaction processing time, cost efficiency, and error reduction, as well as its influence on customer relationships, including customer satisfaction, loyalty, and trust.

### **Objectives:**

1. To study the Customer Perceptions Regarding the E-Wallet System in Ahmedabad.
2. To Analysis of Factors Impacting Customer Attitudes Towards E-Wallets in Transactional Settings.
3. To Analyse of Challenges Encountered by Customers in the Utilization of E-Wallet Payment Systems.

### **Scope of Study:**

In recent years, smart devices have evolved from being a mere trend to becoming an integral aspect of our daily lives. As our shopping habits undergo transformation, the conventional method of manually recording transactions on paper before the advent of smart devices has become obsolete. Despite concerns among customers about a perceived lack of security, prevalent fraud, cultural resistance, and challenges in operational infrastructure and management, the adoption of electronic wallets has witnessed a significant increase.

The evolving landscape of financial services necessitates a forward-thinking approach by banks to attract and retain both existing and new customers. While the traditional cash transaction system cannot be entirely displaced by card or e-payment methods, banks have made strides in addressing security concerns raised by

customers. Against this backdrop, this study seeks to analyze the attitudes of customers towards the e-wallet system.

**Research Methodology:**

The survey employed a convenience sampling method to administer a questionnaire to a sample size of 125 respondents. The study utilizes a combination of primary and secondary data, with a predominant reliance on primary data. Supplementary secondary data were gathered from diverse sources such as newspapers, magazines, and websites. The collected data underwent analysis through relevant statistical tools, including percentage calculations, t-tests, and ranking tests.

**Limitation of the study:**

- The scope of this study is limited to Ahmedabad; therefore, the findings may not be generalized to other geographical areas.
- The data provided by respondents could be subject to bias, as some individuals may not be inclined to offer accurate information willingly.
- Respondents exhibited a tendency to avoid certain statements, presenting a significant challenge during analysis and impeding the derivation of accurate conclusions.

**Result and discussion:**

**Table 1:** Demographic Profile

Demographic Factor	Options	Frequency	Percent age
Age	Below 20	15	12
	21-30	37	30
	31-40	32	25
	41-50	23	19
	Above 50	18	14
Gender	Male	62	50
	Female	63	50
Marital Status	Married	68	54
	Unmarried	57	46
Educational Qualification	Graduates	50	40
	Post Graduates	35	28
	Professionals	27	22
	Others	13	10
Occupation	Private employees	43	35

	Govt. employees	24	19
	Businessmen	21	16
	Students/wife	27	22
	Others	10	8
Monthly Income	Below Rs 15000	30	37
	Rs 15000-30000	16	20
	Rs 30000-45000	23	29
	Rs 45000-60000	11	14
	Above Rs 60000	20	25

Table 1 illustrates that the largest portion of respondents (30 percent) falls within the 21-30 age bracket. An equal proportion of male and female participants (50 percent each) contributed to the survey. The majority of respondents (54 percent) reported being married. In terms of educational qualifications, a significant proportion (40 percent) indicated having a graduate degree. The majority of participants (35 percent) identified as private employees. Additionally, a noteworthy percentage (37 percent) of respondents reported a monthly income below 15000.

**Table 2:** T-test Awareness on E-Wallet

Feature	Gender	N	Mean	Std. deviation	t value	p value
Awareness	Male	62	2.45	.502	.980	.329
	Female	63	2.37	.485		

Significant at 5% level

Table-2 presents the outcomes of the independent samples t-test examining the correlation between respondents' gender and their preference for awareness of e-wallets. The statistical analysis reveals a lack of significant difference, with a calculated t-value of .980 and a p-value of 0.329 ( $p > 0.05$ ). Consequently, the acceptance of the null hypothesis suggests that gender does not have a significant association with awareness of the e-wallet payment system. Moving

forward, Table-3 delves into the purposes for which respondents utilize e-wallet services.

**Table 3:** Purpose of using E-Wallet

Purpose	Regularly	Occasionally	Rarely	Never
Bill Payment	57(46)	40 (32)	10 (8)	18 (14)
Money Transfer	36 (29)	23 (18)	41 (33)	25 (20)
Mobile Recharge	49 (40)	32 (26)	27 (21)	17 (13)
Online Purchase	27 (21)	26 (21)	47 (38)	25 (20)
Ticket Booking	14 (11)	15 (12)	42 (34)	54 (43)

Table-3 displays that a majority of respondents (46 percent) reported regular usage of E-wallets for bill payments. In contrast, 33 percent indicated infrequent use for money transfers. A significant portion of respondents (40 percent) regularly employed E-wallets for mobile recharges. On the other hand, infrequent utilization was observed for online purchases, with 38 percent reporting rare usage. Notably, a substantial proportion (43 percent) of respondents never used E-wallets for ticket bookings.

**Table 4:** Factors influencing the use of E-Wallet

S. No	Factor	Frequency	Percentage
1	Discount	16	13
2	Cash back	56	44
3	Rewards	35	28
4	Credit points	6	5
5	None	12	10
Total		125	100

In Table-4, it is evident that among the 125 respondents, 44 percent express a preference for cashback offers as a key influencing factor. Approximately 28 percent of participants are swayed by rewards, while 13 percent find attraction in discounts. Another 5



percent of respondents cite influence from credit points, and 10 percent indicate that they are not influenced by any specific factor. Consequently, it can be observed that a significant proportion, or 44 percent, of the respondents are particularly influenced by cashback offers.

**Table 5:** Factor ranking of the respondent

Benefits	Frequency					Total score	Rank
	I	II	III	IV	V		
Time Saving	13	6	30	42	34	336	III
More Convenient	32	36	20	20	17	421	II
Secured	17	21	24	23	40	327	IV
Easy Accessible	15	18	32	33	27	494	I
Easy Cash handling	48	44	19	7	7	297	V

Table-5 presents the ranking of statements provided to respondents for their assessment of the e-wallet payment system. Collected through a factor ranking approach, this table highlights the weighted average rank assigned to each aspect based on the total score. The top-ranked statement is "E-wallet payment system reduces the time," followed by the second-ranked statement, "This system is convenient to all." The aspect of security is placed third in the ranking. "E-wallet payment system is easy and accessible" secures the fourth rank, while the statement regarding cash handling is ranked fifth. In summary, the findings suggest that the respondents are primarily attracted to the e-wallet payment system due to its time-saving characteristics.

**Conclusion:**

E-wallets are rapidly becoming a widely accepted method of payment, poised to capture a substantial share in both online and offline transactions. The study reveals that the primary reasons behind the relatively lower preference for E-wallets as a mode of payment include individuals' inclination to stick to traditional payment methods, concerns about privacy, and perceived security threats. Users of E-wallets emphasize the significance of attributes such as security, privacy, and pricing (fees). The most commonly

reported challenges faced by respondents in E-wallet usage include extended transaction processing times, security breaches, and delayed payments.

Despite these challenges, there is potential for increased adoption of mobile wallets for various transactions, including payments, fund transfers, grocery purchases, and bill payments. The study underscores the pivotal role of trust as a critical factor directly influencing user satisfaction and, consequently, impacting the intention of users to embrace mobile wallets.

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**A Study on Perception of Self-Help Group Members  
Towards Digital Payment System With Reference To  
Bagalkot District, Karnataka State**

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**Abstract:**

Digital Payment System has emerged as the new wave in the hope that it will reach the last mile consumer in the most convenient and affordable manner. In the context of India, digital Payment is still a work in progress. Digital modes of enhancing financial inclusion for women by targeting self-help groups (SHGs) could be one potential channel for accelerating and promoting digital financial inclusion in India. For SHGs, digital financial inclusion can be targeted through two separates but symbiotically enabling core activities: recording of financial information digitally and facilitating transactions using digital, paper-less modes like mobile money, mobile wallets, debit cards, ATMs etc, Digitizing information about members of self-help groups and their group transactions in the form of internal and external loans come with certain inherent benefits. Primarily this has the potential to bring in accountability within SHGs and promote self-reliance in bookkeeping and group-level decision-making. It offers a cheaper and more secure alternative to storing and updating information on paper. It has the distinction of offering more convenience, for SHG members, by removing the need to physically travel to deliver or collect information. It allows easy access for relevant stakeholders like banks, which can then make more timely decisions. Finally, a digital platform with financial information about SHGs and SHG members can be used to expand the reach of government programs.

**Key words:** Self-Help Groups, Financial Inclusion, Digital wallets, Digital Payment, Security, Social influence, Transaction speed,

**Introduction:**

Digital payments are transactions that take place via digital or online modes, with no physical exchange of money involved. This means that both parties, the payer and the payee, use electronic

mediums to exchange money. The Government of India has been undertaking several measures to promote and encourage digital payments in the country. As part of the ‘Digital India’ campaign, the government has an aim to create a ‘digitally empowered’ economy that is ‘Faceless, Paperless, Cashless’. There are various types and methods of digital payments. There is no universally accepted way of getting access to digital payments. The method of going digital varies for different payment methods like cards, UPI, mobile banking, micro-ATMs, etc. The main objectives of digital transactions are to reduce the costs and risks of handling cash, increase the ease of conducting online transactions, and increase transparency among monetary transactions among Self-Help Groups Members. Self-help groups (SHGs) are community-based organizations that comprise a small group of people who come together for a common goal. In India, SHGs are primarily focused on empowering women by providing them with access to financial resources, training, and capacity building. SHGs operate on the principle of group savings, where members pool their savings and use them to provide loans to each other. SHGs have emerged as a powerful tool for promoting financial inclusion and economic empowerment in rural areas.

**Objectives of the Study:**

1. To study the consciousness about the digital payment system among the self-Help Groups.
2. To study the perception of members of Self-Help Groups towards acquiring the digital payment system.
3. To study the benefits of digital payment system towards Self-Help Groups.

**Scope of the Study:**

The present study is limited to Bagalkot District of Karnataka State.

**Review of Literature:**

Sl. No.	Author’s Name & Year	Title of Research Paper	Addressed Issues	Research Methodology	Findings
01	Mrs. Sushma Rao K (2023)	Perception Towards Digital Payment System in	Awareness about the digital payment system	Descriptive type of Research Method	It is observed from the study that most of the SHGs remain mostly

		Udupi District	among Self-help Groups.		Cash-based despite the existence of various types of digital payments. They mobilise their savings through cash and receive the loan amount through cheques.
02	<b>Mr. Siddaraju .S (2023)</b>	A Study of Consumer Perceptions on Digital Payment System in India with special reference to Mysuru District	This Study focused on exploring the perception of consumers of different digital payment system	Exploratory Research Method	It is observed from the study that majority of the respondents were opine that the digital payment systems save travel time and energy and some opine that QR code scanning payment, UPI, cards and mobile banking are few types of Digital Payment system which have been used massively by large population
03	<b>Dr. Sita Malakar (2020)</b>	Knowledge and Challenges of Rural Women towards	This study focused on the knowledge and challenges	Descriptive & Analytical Method of Research	It is observed from the study that training will be a necessity in rural parts of

		Digital Payments: A Study in Assam	of rural women towards digital payment in Assam		the country. NGOs can be a major source for rolling out Digital Payment System
04	<b>Dr. Mahesh K.M Kabada (2023)</b>	Impact of Digital Financial Inclusion Initiatives on the Self-Help Group: For Sustainable Development	Digital Financial Inclusion Initiatives and Empowering the sustainable development goals and More opportunities for women in rural areas.	Secondary Data – Conceptual Framework	It is observed from the study that the impact of Digital Financial Inclusion initiatives on SHGs holds immense potential for driving sustainable development. Through the integration of digital technologies and financial services these initiatives have brought about transformative changes in the functioning of SHGs.

**Research Methodology:**

Descriptive type of research method is adopted to study the perception of members of Self-Help Groups towards digital payment system. Totally one hundred respondents have been taken as a sample size for conducting the research. Interaction is done with members of Dhramastala Gramabhivridhi Swasahaya Sangha, Bhagyashri Mahila Mandal and Shri Harihareshwara Mahila Seva Sangha to collect their opinion about digital payment system.

The primary sources include the interaction done with the members of Self-Help Groups in which the responses of respondents

have been distinguished for the analysis of the study. The secondary sources like research papers published in reputed journals as well as research thesis published on the subject Self-help groups and on digital payment system are used for collecting data. Researcher visited to the respondents and recorded their responses.

**Research Gap:** The awareness, Proper training and building confidence about application of the various modes of digital payment system among the members of Self-Help Groups is not yet possible in current social scenario due to the illiteracy rate among the group members as well as their personal oppose to accept it into their routine life. Till today the continuation of the traditional methods of cash payment methodology for various purpose in middle- and lower-income class will be feasible for smooth and uninterrupted spending pattern.

#### **Advantages of Digital Payment System:**

- **Convenience:** Digital modes of payment are designed to offer people convenience. These options can be accessed anytime and anywhere, removing the need to visit banks or ATMs often. Moreover, with multiple options, customers and merchants can choose a suitable system and enjoy speedy transactions at a low cost.
- **Faster payments:** digital payment options like UPI, Debit Cards etc., are quick to use. They take a few seconds, even for large sums of money, and can be accessed anytime during the day.
- **Safer transactions:** New-age payment systems are secure. There is a transparent trail of transactions that helps minimize fraud. Everything is done digitally, removing the chances of error or human mistakes.
- **Easy Management:** Digital Payment system make it easier to manage and store the money and other financial data. For both vendors and customers.

The challenges and implications of the perception of Self-Help Group (SHG) members towards the digital payment system are multifaceted based on the research findings:

- **Low Awareness and Illiteracy:** Many SHG members, predominantly from rural areas, lack awareness about digital payment systems and face high illiteracy rates, making it challenging them to adopt digital technologies.
- **Perceived Complexity and Time Consumption:** SHG members who are aware of digital payment systems often find them complex and time-consuming, leading to hesitancy in

adoption due to the perceived difficulties in understanding and using these systems.

- **Lack of Smartphones and Internet Access:** The financial constraints of SHG members, who are mostly poor and rural, hinder their ability to afford smartphones and internet access, essential for engaging in digital transactions.
- **Social Challenges:** Studies highlight social challenges associated with digital payment technologies, such as trust issues and the impersonal nature of transactions, which can impact the willingness of SHG members to adopt digital payment methods.
- **Economic and Technical Challenges:** Apart from social challenges, there are economic and technical barriers that SHG members face, including limited access to banking services, lack of technical knowledge, and concerns about the security of digital transactions.
- **Recommendations for Accelerating Adoption:** To enhance the penetration of digital financial services among vulnerable groups like SHG members, recommendations include streamlining work processes, promoting financial services, improving communication, and introducing new livelihood opportunities through digital solutions

### Findings of the Study:

It is observed from the above survey that the members of Self-Help Groups of Bagalkot District depend mostly on cash-based payment despite the existence of various types of digital payments. They mobilise their savings through cash and receive the loan amount through cheques. Despite of having ATM cards many of the members will not go to ATM centres to withdraw the money. Majority of them are completely unaware of Digital Payment techniques and some of them hesitate to use due to fear of losing the money.

### Results and Discussions:

#### 1.1 Age and Marital status of the respondents:

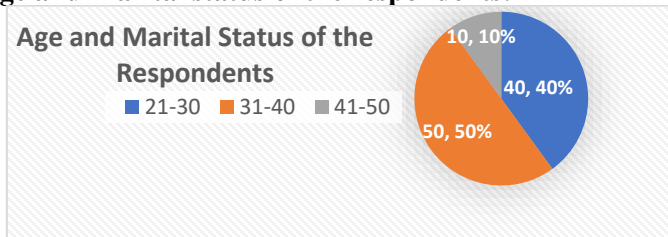


Figure 1. Source: Field Survey



The present study reveals that majority of the respondents are in between the age of 31-40, 40% of the respondents are in between the age of 21-30 while, 10% of the respondents are in between the age group of 41-50. Out of total respondent it is also observed that 85% of them are married and only 15% of them are unmarried

### 1.2 Monthly income of the respondents:

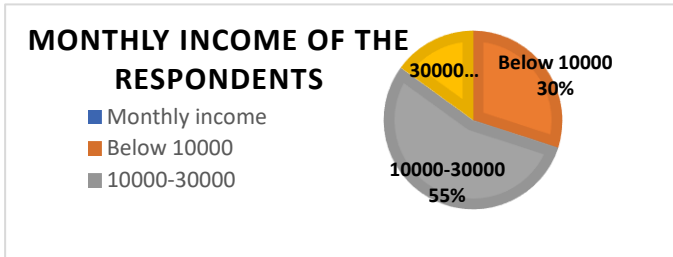


Figure 1.2 Source: Field Survey

To measure the level of digital transaction among the members of SHGs it also become important to know monthly income of the respondent. From the above figure: 1.2 it is found that 55% of the respondents earning between 10000-30000 in a month, while 30% of the respondents earning below ten thousand and only 15% of the respondents earn above thirty thousand.

### 1.3 Awareness about digital payments:

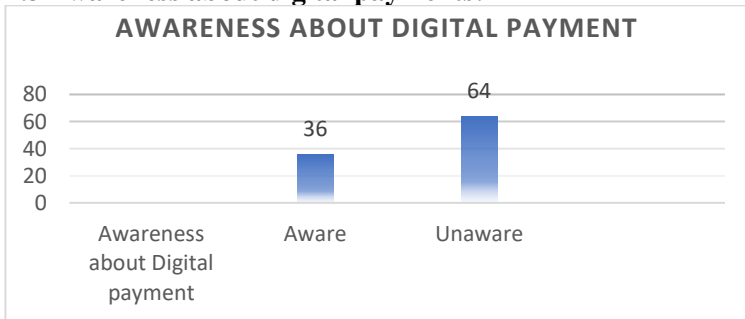


Figure 1.3 Source: Field Survey

Most of the members of Self-Help Groups are rural people. Majority of them either daily wage workers or working in factories. In the survey conducted it is found that among 100 respondents 64 (64%) members are unaware of digital payment system because they don't have android mobile. These respondents have been never become a part of any campaign of awareness about the digital payment system. 36% of the respondents are aware about digital payment mechanism.

### 1.4 Related perception on Digital Payments:

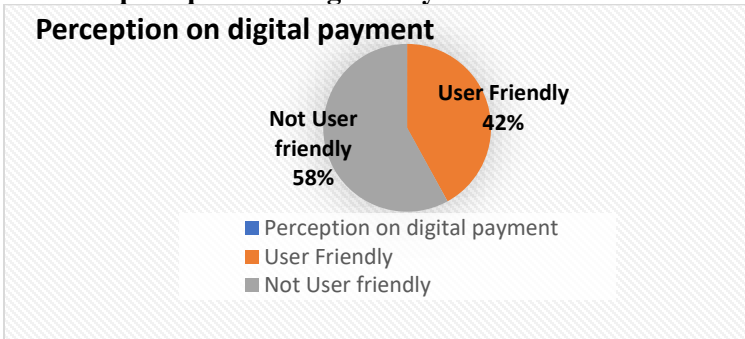


Figure 1.4 Source: Field Survey

Related to digital payment the respondents have their own perception. Not all but some of the members have the knowledge of digital payment and all have bank account too. Majority of them do not have android mobile and out of that only 42% of the respondents have the opinion that digital payment is user friendly and major portion of the respondents i.e. 58% opine that digital payment is not user friendly because they are illiterate and not having the knowledge of banking apps.

### 1.5 Reasons for not preferring digital payments:

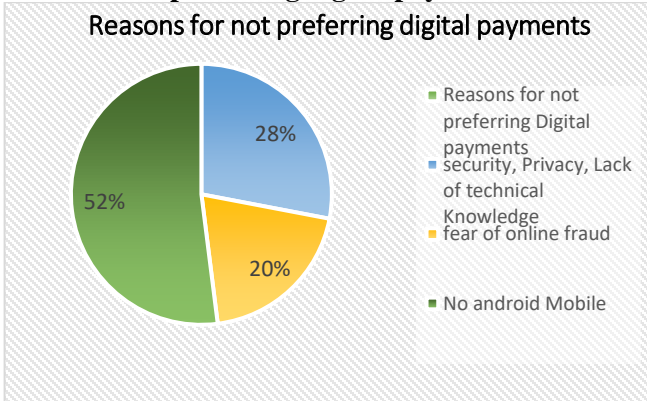


Figure 1.5 Source: Field Survey

Out of the total respondents it is found that 52% of respondents do not have android mobile, while 28% of respondents have Privacy, lack of technical knowledge and Security issue for not opting digital mode of payments. Rest of 20% respondents do not prefer due to fear of online fraud.

**Suggestions:**

1. The Government should take up different projects to educate the non-literate members of the groups about the importance of cash-less transactions.
2. Awareness campaign should be conducted at all level and demonstration should be shown.
3. Training will be essential in rural parts of the Bagalkot district. Transparency and efficiency in digital transaction is must needed.
4. Internet Connections should be made strong in rural areas of Bagalkot District.
5. Improve the mindset of the rural innocent people who think cash is an immediate transfer of value. The transformation of mindset is needed for inculcating Digital payment system in their routine life.

**Conclusion:**

India is a fast-moving country in the sense of transformation. But the rural parts of the nation are still lagging with technological advancement. The challenges faced by SHG members in adopting digital payment systems are rooted in awareness gaps, illiteracy, perceived complexity, lack of resources, and social, economic, and technical barriers. Addressing these challenges requires targeted efforts to enhance awareness, provide education, improve access to technology, and build trust in digital financial services among SHG members. The awareness, proper campaign and user-friendly application of various mechanism of digital payment system among the members of the Self-Help Groups is not yet possible in the current scenario due to high illiteracy rate among them. The Government must take initiative to give training to SHGs on chare of Bank Mitras who can extend their help to the bank, post offices and Bank. No doubt, slowly India is moving from cash to cashless economy. It is essential that rural women also must know digital payment and take it as a habit to make this programme successful.

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## **A Scrutiny on Enhanced Virtual Banking Implementation in India**

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### **Abstract:**

The Virtual India drive is an administration driven drive fully intent on changing India into a carefully enabled society and learning economy. Virtual banking in India has emerged as the favored financial channel. Be that as it may, challenges confronting extension of banks' Virtual impression in India are considerable. India, with an unbanked populace in the request for 190 million grown-ups, has a stunning number of individuals without access to credit. The Mechanized India drive plans to underline self-government while likewise changing India into a more dynamic local area. The Public authority of India has sent off the Virtual India drive to change the whole climate of open associations utilizing data improvement and high level economy. The objective is to change India into a painstakingly attractive public sight and information economy. Virtual banking has altered the manner in which we bank in our present society. With virtual banking, we can execute all the more rapidly, easily, and essentially. The expression "advanced banking" alludes to banking that is done completely on the web, without the need of paper records like checks, pay-in slips, or request drafts. Without expecting to truly visit a bank office, virtual banking permits clients to get to and play out all standard financial exercises 24 hours per day, seven days every week. Virtual banking should be possible on a PC, tablet, or cell phone.

**Keywords:** Virtual Banking, Advanced Economy, Society, Online

### **Introduction:**

In India, Virtual banking began coming to fruition in the last part of the 1990s with ICICI Bank being the first to carry the support of their retail clients. Advanced banking became standard just in 1999 as web charges were decreased and there was expanded mindfulness and entrust as for the web. Conventional financial strategies have gone through a tremendous change to current

financial techniques. With the fast progression of science and innovation, a financial application known as UPI Brought together Installment Connection point banking has arisen in the contemporary situation. Conventional banking has been for the most part nullified thanks to the presentation of current stages like UPI. Paperless exchanges are likewise turning out to be more normal because of online installment stages.

The Bound together Installment Point of interaction administrations are giving a ton of benefit to clients because of the rising interest and time factor. In contrast with every one of the methodology in banks, the application establishment and use process is really clear. There are no exchange expenses or charges, and the main prerequisites are an individual cell phone with web access, a financial balance connected to the UPI application, and a MPIN. Everything necessary is a single tick and speedy access. Clients can utilize the administrations given by notable UPI applications, for example, Google Pay, Telephone Pe, Paytm, and Amazon Pay from the solace of their own homes. Clients are more attracted to utilizing UPI administrations in view of the idea of markdown coupons and scratch cards.

The Virtual India drive is an administration driven drive fully intent on changing India into a carefully enabled society and learning economy. The program incorporates undertakings pointed toward guaranteeing that taxpayer supported organizations are mindfully accessible to residents and that residents have an unparalleled view to the most exceptional data and specialized progressions of the association. 'India lives in its towns,' Gandhiji accepted, and advancement would help the towns' turn of events and achievement. High level libraries, online distributions, and digital books can be made openly accessible, which will support data trade. In his discourse in California, Head of State Modi accurately expressed, "Development, as I would see it, is a method for empowering and a gadget for broadening the hole among trust and opportunity. Social boundaries are being diminished because of online long range informal communication. It interfaces individuals in view of their human characteristics, not their characters."

In truth, development is a platform that establishes the trust that India's towns would be educated and conscious of the capability

of the web and access to information from around the world. 'High level India' isn't simply an objective, yet in addition a need for this nation, where most of the populace actually needs access to the web. The Mechanized India drive intends to stress self-government while likewise changing India into a more dynamic local area. Its motivation is to guarantee that citizen supported establishments are innovatively available to locals. High level India additionally alludes to the country's capacity to team up more without any problem. The Branch of Gadgets and Data Innovation (Divinity) guesses that this program will altogether affect the Correspondence and Data Innovation Administrations. It will zero in on giving fast web organizations to its locals and will slowly make organizations accessible for both the web and versatile stages. It is accepted that altogether more exertion is expected to guarantee that e-government in the nation accomplishes thorough improvement that scatters electronic associations, devices, and open positions.

Furthermore, the country's electronic assortment endeavors ought to be supported. The public authority of India has sent off the Virtual India drive to change the whole climate of open associations utilizing data improvement and high level economy. The objective is to change India into a painstakingly attractive public sight and information economy.

Banking used to be a tedious undertaking. You needed to go to a bank office, hand over a check to a bank worker, get a token, and trust that the clerk would call your number assuming that you needed cash, for instance. You needed to stand by quite a while during the principal seven day stretch of the month, when purchasers were restless for cash. That, fortunately, is not true anymore. Because of advanced banking, individuals' strategic policies have changed. To get cash, all you need to do today is stroll to the nearby ATM, embed your card, and you'll have cash in less than a moment! Moreover, taking on Virtual permits you to have a paperless financial encounter, eliminating the requirement for you to monitor your exchanges or monetary history through actual reports.

In the present culture, advanced banking has changed how we bank. We can execute all the more quickly, effectively, and simply by utilizing advanced banking. The expression "advanced banking" alludes to banking that is led completely on the web and

doesn't bother with the utilization of paper records like checks, pay-in slips, or request drafts. It alludes to a wide range of web based financial exchanges. Virtual banking permits shoppers to get to and complete all standard financial tasks 24 hours per day, seven days every week, without having to visit a bank. Virtual banking should be possible on a PC, tablet, or cell phone. There have been two advanced upheavals in India: the principal on November 8, 2016, when demonetisation was authorized, and the second on Walk 25, 2020, when the whole nation was placed on lockdown because of the Crown emergency.

Universally, advanced financial clients are supposed to cross the 3.6 billion mark by 2024. The measurement isn't totally business as usual, and just repeats what banks and the world overall has known for some time now: what's to come is Virtual, and banking is no exemption to that.

### **Review of Literature:**

*Gokilavani R, Durgarani R, April 2018*, expressed that the advanced economy is the action that results from billions of ordinary internet based connections between individuals, organizations, gadgets, data, and cycles. Virtual India is the result of a few developments and headways. The Advanced India mission an affects Indians' lives. Advanced India will possibly begin in 2018 when privately owned businesses start to utilize broadband foundation to grow their items and administrations. This colossal Virtual economy opportunity can change the existences of millions of Indians. *Kumar S.V.S, Kavya Ch., April 2020*, expressed that the advanced financial framework has altogether changed the old financial framework in the ongoing conditions. Advanced financial administrations have to a great extent overwhelmed the old financial framework, with most of cell phone clients picking to involve Virtual stages for banking administrations instead of visiting their banks for monetary exchanges.

*Reddy N. G, Nikitha B S, January 2019*, expressed That their paper intends to concentrate on the impacts of the credit only economy when demonetization. Not just individuals, it likewise impacted the country's economy, where we ran over that Gross domestic product raised by 2%. What's more, not just economy, it likewise impacted the securities exchanges, land, huge scope and



limited scope enterprises and numerous different areas. Demonetization has impacted and purchased in scarcely any thorough changes likewise in the country's economy and in exchange mode or strategy for individuals as well. It has both impacted the economy and been the high ground for the development of credit only economy.

Take a look at the advancement of digitalisation, c) digitalisation and Demonetization effects of Indian economy universally and d) credit only economy. *Arner D. W, Barberist J. N And Buckley R. P, 2016* expressed that FinTech 3.5, a subset of FinTech, was ignited by the requirement for improvement and failures in the current monetary framework, as well as the rising reception of FinTech in developing business sectors, quite Asia. In the two cases, the FinTech area's development has aroused the curiosity of controllers, who are as of now assessing the most ideal ways to help market improvements while guaranteeing that the area's development adds to, as opposed to risks, center commands like fundamental dependability, buyer security, and market rivalry.

*Dasho A, Meka E, Shrako G, Baholli I, 2016*, expressed that Virtual banking involves desperation, not scholarly discussion, and advanced change progressively reaches out past banks. Virtual banking is the utilization of new and developing innovation across a monetary administrations association, along with changes in interior and outer corporate and individuals ties, to convey more viable and effective client administrations and encounters. The ramifications is that banks should digitize, which is a troublesome undertaking because turning into a Virtual Bank involves the improvement of new administrations given 21st-century innovation. Monetary foundations should embrace a business change, putting resources into the progressive repair of old frameworks to offer the Virtual types of assistance that the new age need while holding their standing and staying away from administrative gamble. *Wewege L, Lee J, Thomsett M.C, 2020*, expressed that by zeroing in on installments, cash moves, little medium-business advances, and microfinance, Virtual just neo-banks animate specialized development like advanced wallets and informing distributed exchanges. As the fintech business develops, the imaginative leap forwards that have given the reason for enormous disturbance in the

ongoing advanced financial upset have gotten going an unheard of direction of coordinated effort and combination.

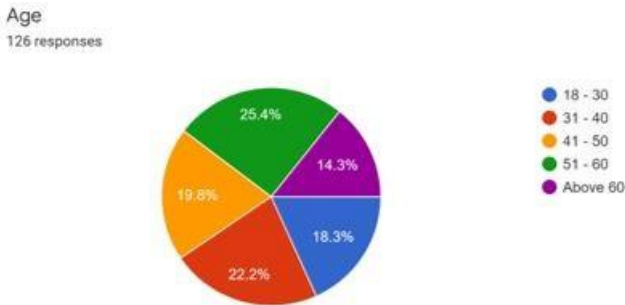
**Objectives:**

- To ascertain the level of public awareness regarding virtual banking.
- To find out how frequently customers use virtual banking.

**Research Methodology:**

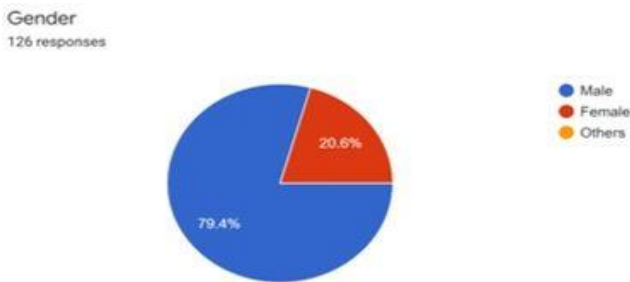
Random sampling was used in the online survey to collect the main data for the study. Excel was used to evaluate the data, and conclusions were made. I collected primary data for my issue by conducting an online survey. Since my data is analytical, I have provided a perspective below:

**Fig 1: Age bunch division**



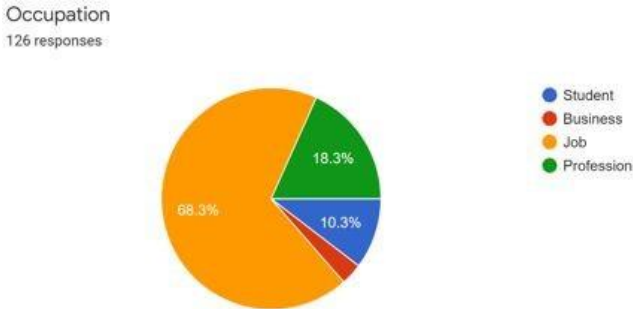
Out of 126 reactions taken 18.3%, 22.2%, 19.8%, 25.4%, and 14.3% were in the age gathering of 18-30, 31-40, 41-50, 51-60 or more 60 separately. I have taken 18-30 out of one measure and other in contrast of 10 simply because after 18 we consider individual as grown-up and they are not minor.

**Fig 2: Orientation division**



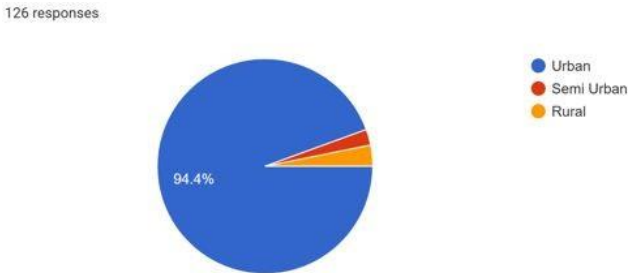
Of the 126 responses, 79.4% of respondents were men and 20.6% were women.

**Fig 3: Occupation Order**



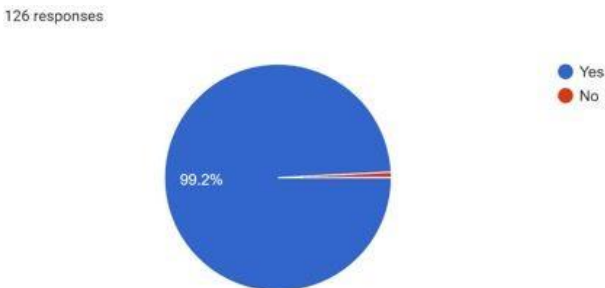
lies, 3.2% were from business foundation, 18.3% were experts and 68.3% of entire respondents were taking care of business as their occupation.

**Fig 4: Locale of members living**



Out of 126 respondents 94.4% individuals were living in urban region, 2.4% were living in semi metropolitan region and 3.2% were living in provincial region.

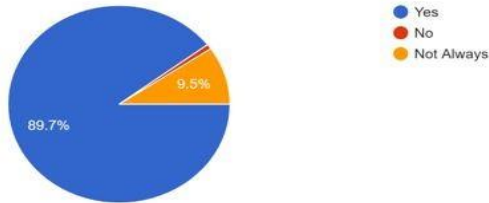
**Fig 5: Virtual Financial mindfulness**



Out of 126 respondents 99.2% individuals said that they know regarding the advanced financial administrations given by different stages, and 0.8% individuals said that they have close to zero familiarity with the equivalent.

**Fig 6: Inclination in Credit only Exchange**

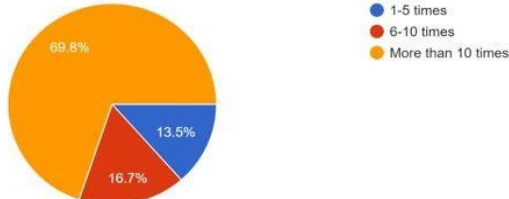
126 responses



Out of 126 respondents 89.7% individuals said that they incline toward credit only exchange more than cash exchange, 9.5% individuals said that they don't favor something very similar.

**Fig 7: Consistency in the utilization of Virtual Banking**

126 responses



Out of 126 respondents 13.5% individuals said that they utilize 1-5 times Virtual financial stage in a month, 16.7% individuals said that they utilize 6-10 times advanced financial stages in a month and 69.8% individuals said they utilize over multiple times Virtual financial stage in a month.

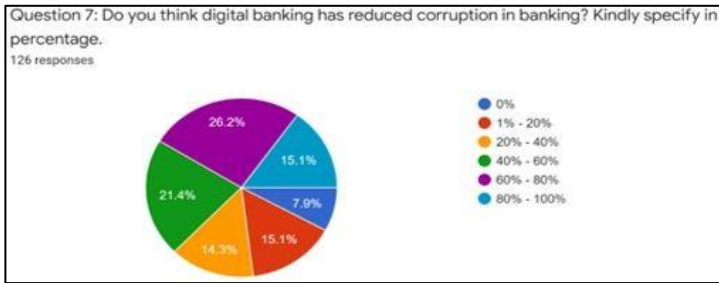
**Fig 8: Fate of the Advanced Financial framework**

126 responses



Out of 126 respondents 97.6% individuals feels that advanced banking would be eventual fate of banking framework and just 2.4% individuals imagines that Virtual financial won't be future.

**Fig 9: Is Virtual Financial diminishing the defilement?**

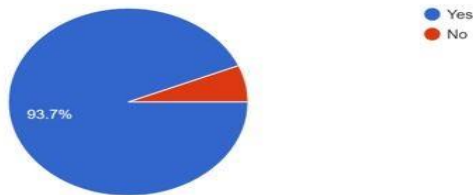


Out of 126 respondents 15.1% individuals believes that debasement has been diminished because of Virtual banking by 1%-20%, 14.3% individuals say 20%-40%, 21.4% says 40%-60%, 26.2% says 60%-80%, 15.1% says 80%-100 percent, and 7.9% says 0%.

**Fig 10: Life is without bother in utilizing advanced banking**

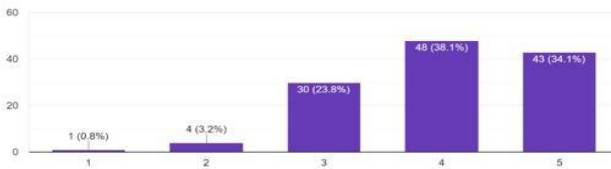
Out of 126 respondents 93.7% individuals says their life is without bother by utilizing advanced banking just 6.3% individuals said that their life isn't simpler by utilizing Virtual banking.

Question 9: Is your life hassle free by using digital banking?  
126 responses



**Fig 11: Advanced financial confidence with regards to somewhere safe and secure**

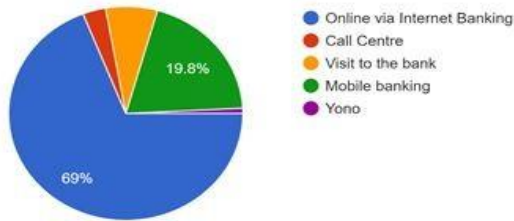
Question 8: How much safe digital banking is?  
126 responses



Out of 126 respondents 72.2% individuals showed inspirational perspective towards security of Virtual banking 4% showed negative disposition and 23.8% were unbiased.

**Fig 12: Kind of Financial Inclination**

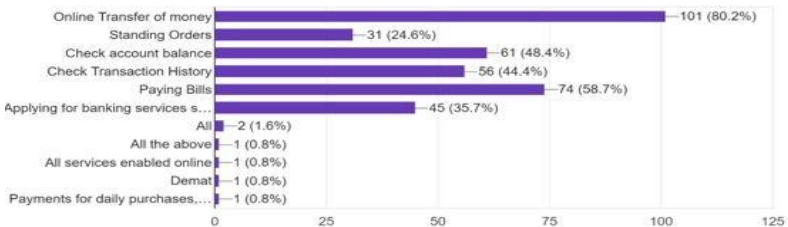
Question 10: What is your preferred communication with your bank?  
126 responses



Out of 126 respondents 69% said they favor net banking for correspondence with bank, 19.8% incline toward portable banking, 3.2% favor call focus, 7.1% incline toward visiting bank, 0.8% favor YONO.

**Fig 13: Principal Motivation behind Virtual Banking**

Question 11: For what type of work you use digital banking?  
126 responses

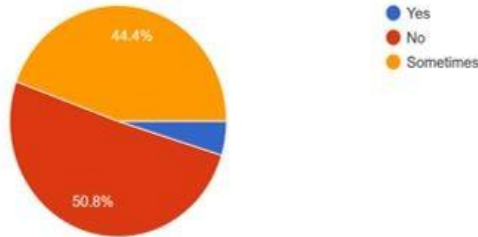


Above diagram as of now shows that from 126 respondents, 80.2% individuals utilizes Virtual banking to move their cash, 24.6% says for standing request, 48.4% for actually looking at equilibrium of their record, 44.4% says for exchange history, 58.7% says for taking care of bills, 35.7% expresses for applying different administrations given by banks, 1.6% says for all and 0.8% individuals says for demat.

### Fig 14: Issues of using Virtual Banking

Question 12: Do you face problem in using digital banking services?

126 responses



Out of 126 respondents 4.8% individuals says they deal with issue in utilizing Virtual banking, 50.8% individuals say they don't deal with issue in utilizing advanced banking and 44.4% individuals say they deal with issue at times.

### Fig 15: Sort of issue face in Advanced Banking

Question 13: If you face problem in using digital banking services, what type of problem you face?  
83 responses

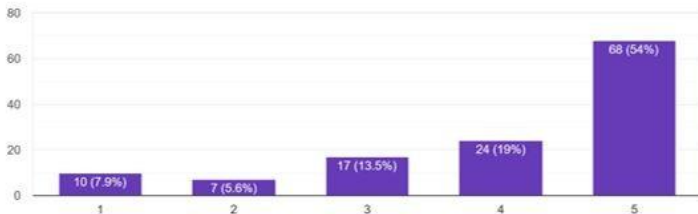


Out of 83 reactions most extreme reaction was found that they deal with issue in utilizing Virtual banking because of low organization issue, or server issues.

### Fig 16: Advanced Financial makes less expensive?

Question 14: Digital banking makes banking cheaper?

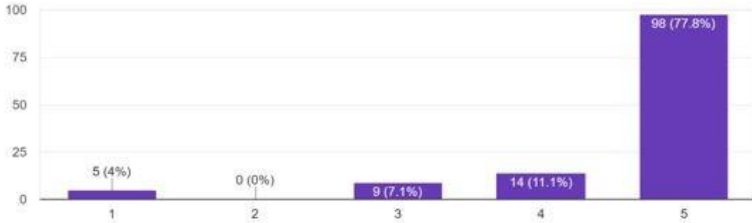
126 responses



Out of 126 reactions 73% individuals feels that banking is less expensive because of advanced banking and 13.5% think that banking isn't less expensive by utilizing Virtual banking and rest show impartial way of behaving.

**Fig 15: Advanced Financial record gives access every minute of every day?**

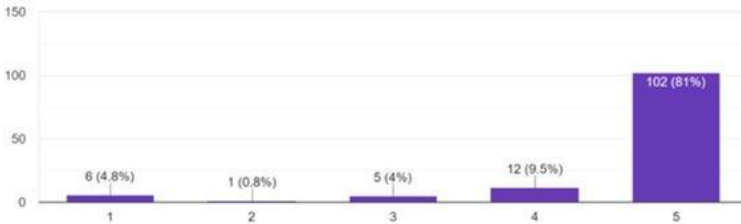
Question 15: Digital banking gives account access 24/7?  
126 responses



Out of 126 respondents 88.9% individuals imagines that advanced financial gives account access day in and day out, 4% shows negative mentality towards the equivalent and 7.1% were impartial.

**Fig 16: Advanced Financial recovers time?**

Question 16: Digital banking saves time of customers?  
126 responses



Out of 126 respondents 90.5% individuals said that advanced financial saves season of clients, 5.6% individuals showed negative mentality and 4% were nonpartisan.

**Conclusion:**

After investigating every one of the information and reactions, we found that out of 126 reactions taken by utilize 89.7% individuals like to utilize Virtual financial administrations over cash exchange. We tracked down that after demonetization and Corona virus wave individuals began involving advanced financial administrations for their everyday exchange and for all their



financial necessities and they thought that it is advantageous. Individuals utilize different stages to pay to vendor or for opening fixed stores accounts or other to put resources into different types of putting away instruments and moving cash. Likewise, many individuals currently utilize advanced financial administrations for their exchanging and venture purposes. Just 4.8% of respondent says that they deal with issue while utilizing advanced financial administrations and the vast majority of them said that they deal with issue because of server issues. 15.1% respondents believe that defilement has been diminished because of virtual banking by 1%-20%, 14.3% of respondents say 20%-40%, 21.4% says 40%-60%, 26.2% says 60%-80%, 15.1% says 80%-100 percent, and 7.9% says 0%. We likewise got some information about their trust on advanced banking as 72.2% individuals show their positive reaction. In this way, we observed that there is an enormous development being used of Virtual financial administrations in India after demonetisation and crown emergencies as that was the stage when individuals were begun involving different stages for their financial administrations on the web.

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**Chapter: 09**  
**Navigating Mental Ambiguity: The Journey of College Students**

**Diya Prajapati**  
**Dr. Urvi Amin**

**Abstract**

This study delves into the intricate realm of cognitive ambiguity experienced by college students. Through a qualitative exploration, we investigate how students encounter, navigate, and endure cognitive uncertainties in the academic environment. The research employs a mixed-methods approach, incorporating interviews, surveys, and observational data to gain a comprehensive understanding of the cognitive challenges faced by students during their college journey. Findings highlight the multifaceted nature of cognitive ambiguity, shedding light on coping mechanisms, learning strategies, and the long-term impact on academic performance and well-being. This research contributes to the broader discourse on student experiences, providing insights for educators, administrators, and policymakers to enhance support systems and foster a more conducive learning environment.

**Key words:**

Academic Stress, Anxiety, Depression, Health struggles, Mental wellness in college, Student survival Mental Health struggles.

**Introduction**

Mental ambiguousness means having mixed, contrary or more than one feeling and emotion about something which can be interpreted in more than one way. Since, the beginnings of scientific psychology, there has been widespread interest in how human emotion and mental health influences such fundamental processes as memory, reasoning, attitude formation, and decision making. The tendency to interpret mental ambiguity as threat has been implicated in cognitive models of mental health problems. A significant body of research has examined the association between mental health problems and negative interpretation, and reviews suggest there is a robust positive association in adults. Now, let us understand how our brain reacts when emotions and mental health influences it. As ambiguity increases, the amygdala (the grey matter deep inside the

brain's cerebral hemispheres) begins responding to a perceived threat. Anxiety and fear rise, while the ventral striatum simply stops functioning. These chemical imbalances cause our minds to seek meaning and understanding, so we strive to find certainty even when no clear answer is in sight. Ultimately, if we hear only limited or ambiguous details about something we hold dear then our brain chemicals force us to search for clarity no matter how muddy the source. When we think about this innate reaction, the current “fake news” phenomenon and fights over what constitutes a fact make more sense.

A person suffers mental ambiguity because of having poor mental health. The various signs of poor mental health are feeling sad or down, confused thinking or reduced ability to concentrate, excessive fears or worries, or extreme feelings of guilt, extreme mood changes of highs and lows, withdrawal from friends and activities, significant tiredness, low energy or problems sleeping, detachment from reality (delusions), paranoia or hallucinations, inability to cope with daily problems or stress, trouble understanding and relating to situations and to people, problems with alcohol or drug use, major changes in eating habits, sex drive changes, excessive anger, hostility or violence, suicidal thinking. Sometimes signs of a mental health disorder appear as physical problems, such as stomach pain, back pain, headaches, or other unexplained aches and pains.

### **Literature Review**

**Berger H. (2015): “Trends in Psychological Distress among Medical and Psychology students: A 20-year Follow-up study at a German University”** aimed at investigating the common fact of psychological distress in medical and psychology students (n = 293) at a German University. The methods adopted here like Sampling structure, questionnaire and process of this study were a reproduction of a prior study carried out at the same university in 1994 (n = 346) which allowed for assessing changes over time. The major findings showed that 12% of students suffered from clinically relevant psychological complaints. Compared to 1994, self-reported mental health problems have significantly decreased. Possible explanations such as an improvement of health care, economic conditions and study conditions are discussed.

**Pedrelli P. (2014): "Critical Issues in College Students' Academic Life: Prevalence of Psychiatric and Substance Use Problems and the Significance of Age of Onset"** aimed at outlining the critical issues which the college students faced during their academic life. In this the methods adopted here were in the sequence like first, the prevalence of psychiatric and substance use problems in college students and second, the significance of assessing age of onset of current psychopathology are described.

**Storries K. (2010): "Addressing Emotional and Mental Health Problems in University Students Worldwide: A Comprehensive Review of 572 Articles"** aimed at addressing the emotional and mental health problems of university students worldwide. In conducting this study in total, 572 articles were identified, of which 11 met inclusion criteria. Issues identified included types of problems experienced by students, how staff dealt with these students, and barriers to seeking help, tools that facilitated help-seeking and epidemiological trends in the university student population.

**Hadulla H. (2015): "Student Flexibility in a Globalized World: Exploring Psychological Problems and Mental Disorders in Higher Education"** argued that in globalized world the necessity for student flexibility is increasing. So, this study aimed at addressing the psychological problems and mental disorders which are quite frequent, and students seek help at the places where they study.

#### **Objectives of This Study:**

The main objective of this study was to study mental ambiguousness of college students. The other subsidiary objectives are as follows:

- To examine the mental ambiguousness suffered by the students.
- To find out till what extent the mental ambiguousness has been lived by the students.

To study and ascertain methods adopted by the students for their survival.

#### **Research Methodology:**

Research is a systematic method of finding solution to problems. It is essentially an investigation, a recording and analysis of evidence for the purpose of gaining of knowledge.

- **Research Design:**

Research design for our study is descriptive in nature.

- **Sample Size:**

In this study we have collected 501 students and have collected their valuable responses.

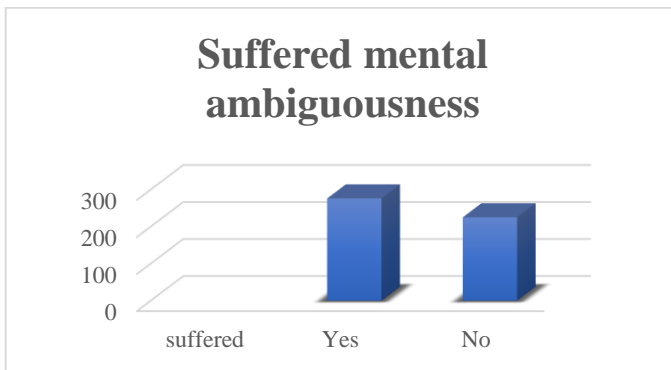
- **Method of Sampling:**

To draw valid conclusions from your results, Researcher study probability sampling method

### Data Analysis & Interpretation

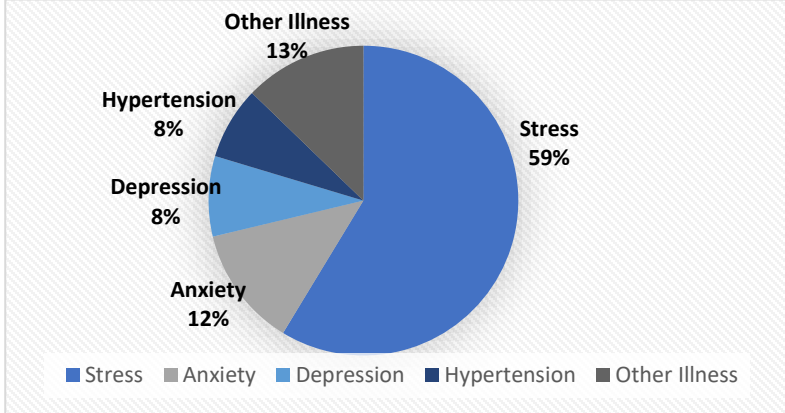
SERIAL NO.	DEMOGRAPHICS		FREQUENCY	%
1.	Gender	Male	249	49.7
		Female	252	50.3
		Total	501	100
2.	Age	18-21	451	90
		22-25	45	9
		Above 25	5	1
		Total	501	100
3.	Course	Undergraduate	421	84
		Post-Graduate	80	16
		Total	501	100

#### 1. Have you suffered mental ambiguousness?



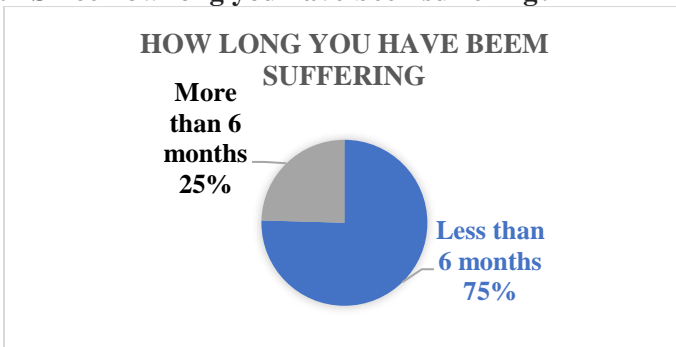
This chart suggested that, out of the total sample size 225 respondents which is 45% of the total have suffered this issue and 276 respondents which is 55% of the total have not suffered this issue according to our survey.

## What type of mental health illness has been suffered by you?



The highest number of respondents suffered through Stress which were 294 respondents i.e., about 59% of the total sample size under survey. Similarly, the second highest number of respondents suffered through Anxiety which were 63 respondents i.e., 12% of the total sample size. While 8-8% of the total respondents suffered through Hypertension and Depression respectively. And the remaining 13% of the respondents mentioned their specific illnesses namely; tiredness, delusion and lack of knowledge regarding topic.

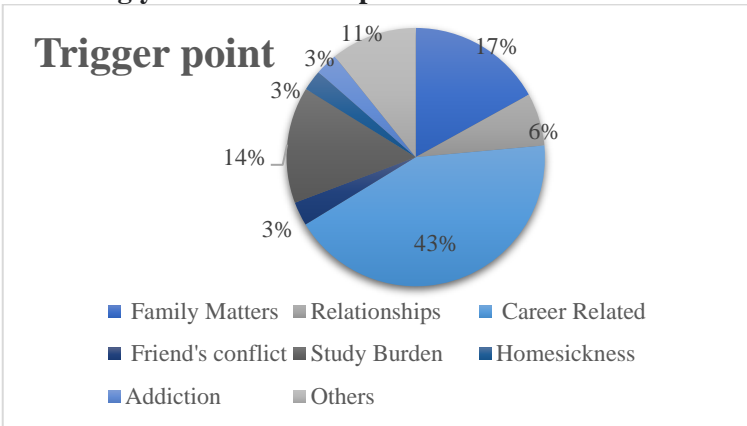
### 1. Since how long you have been suffering?



Out of the total sample size undertaken in this survey 378 respondents have been suffering the issue within the time frame of less than 6 months and 123 respondents have been suffering the issue in the time frame of more than 6 months. It can be seen here

that maximum number of respondents experience this issue on short term basis.

**1. What has been your trigger point out of the following leading you to suffer the problem?**



Here we can observe that the bar of Career Related is highest as it showcases 214 respondents out of the total sample size. In the same manner, the bar of Family Matters showcases 85 respondents which is the second highest in the chart while the bar of Homesickness is the lowest which showcases 13 respondents out of the total sample size. The Others Category describes here FOMO, Business, Mistakes, Negativity and Adjustment Issues with people. It can be seen here that Career Related category has been the major trigger point among the research we conducted.

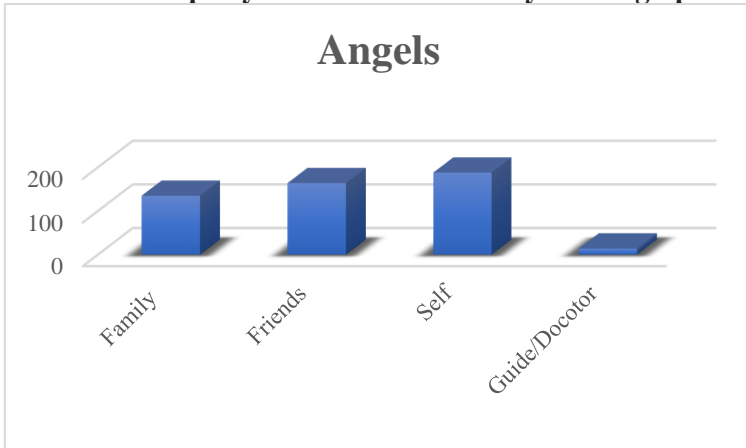
**1. What has been your wildest action when you were going through that tough phase?**



Here we can observe that the bar of Self-harm is highest as it showcases 150 respondents out of the total sample size. In the same manner, the bar of To Break

Things showcases 112 respondents which is the second highest in the chart while the bar of To Create Chaos is the lowest which showcases 89 respondents out of the total sample size. The Others Category here describes the wildest actions namely; Being Silent, Sleepy, Listening Song, Overthinking, To Act Weird, Spread Negativity to Others, Laziness, Rash Driving and Mental Breakdown. It can be seen here that causing Self-harm has been the major wildest action among the students suffering through mental ambiguousness.

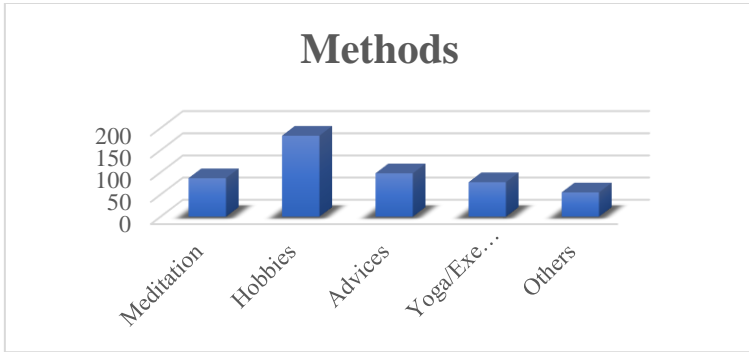
## 2. Who has helped you to come out from your tough phase?



The bar of Friends showcases 112 respondents which is the second highest in the chart which means that the friends of the students play a major role in helping them to rise out from their tough phase. While the bar of Guide/Doctors is the lowest which showcases 14 respondents out of the total sample size which means very few students have taken the help of Guide/Doctor to come out and shine from their tough phase.

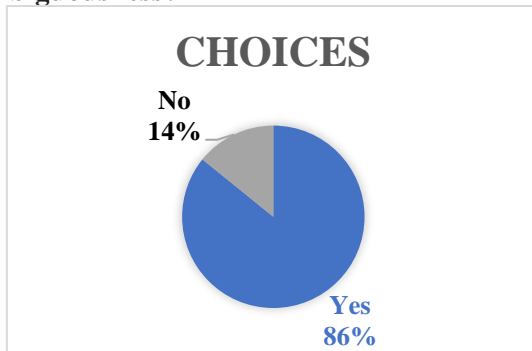
**Which method has been used by / preferred by you to overcome your mental ambiguousness?**





The bar of Advices showcases 98 respondents which is the second highest in the chart which means that the advices played a major role in helping them to rise out from their tough phase. While the bar of Yoga-Exercise was least preferred by the respondents as it showcases 78 respondents out of the total sample size. While the remaining 55 respondents had their own specific method to adopt namely; Gym, Staying Alone, Space, Motivation, Bhakti, Prayer, Calming Down and Enjoying with friends.

### 3. Has this method been helping you in reducing your mental ambiguousness?



Here we can observe that 430 respondents out of the total sample size have found their method to be useful and successful in helping them during their tough time; while on the other hand the remaining respondents 71 have not found their method worth adopting.

### Conclusion

This study is on Mental Ambiguousness suffered, lived and survived by students during their college life. Mental ambiguousness

means having mixed, contrary or more than one feeling and emotion about something which can be interpreted in more than one way.

The study's main objective is to examine the mental ambiguousness suffered by the students, to find out till what extent the mental ambiguousness has been lived by the students and to study and ascertain methods adopted by the students for their survival and propose the same in conclusion.

Our study is descriptive in nature. We study and analyses the mental ambiguousness among students in our college, how they have undergone through it suffered from it, till what extent they have been tackling this problem and lastly ascertained the methods adopted by them which aided them to survive through this tough phase. In this capstone project we have used both the primary data collection method and secondary data collection method. In primary data collection method, we have made a questionnaire and has used it as a tool to collect information from the respondents (students). And further analyzed and evaluated it and has concluded our research. We have also used secondary data collection method for our better understanding for the topic and for smooth conducting of the research without any ambiguousness left in our mind for the topic and its objectives. In that we have studied data from various research papers related to our topic which are published in various journals and has developed a better understanding for the topic. The project includes six chapters which contains introduction of mental ambiguousness, review of literature, theoretical backdrop of mental ambiguousness, descriptive analysis of mental ambiguousness, diagnostic and prescriptive analysis of mental ambiguousness and lastly the conclusion of this capstone project. In our research we have surveyed college students across various streams and have collected 501 responses. We conclude that the age group of 18-21 years suffers the maximum through mental ambiguousness. Among them Stress has been the major mental illness. The Career related issue has been a major trigger point for the students. While suffering through their tough phase causing self-harm has been their major wildest action. Engaging in one's own hobbies has been major relief method adopted by students.

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**Chapter: 10**  
**Role of Digital Marketing in MSME Sector**

**Shakunthala H**  
**Dr. Ranjini M. L**  
**Dr. Rajith Kumar H. B.**

**Abstract:**

Digital marketing is a marketing technique of promoting products or services using digital channels such as websites, social media, email, search engines, mobile apps, and more. Digital marketing can help MSMEs (Micro, Small, and Medium Enterprises) reach a wider audience, increase brand awareness, generate leads and sales, and improve customer loyalty. However, many MSMEs face challenges in adopting digital marketing due to a lack of awareness, skills, resources, or budget. That is why they need a reliable and professional digital marketing agency that can help them achieve their goals.

**Keywords :** Digital Marketing, MSME's, Customer Loyalty, Awareness & Sales

**Introduction:**

Micro, Small, Medium and Medium Enterprises (MSMEs) emerged as one of the leading, healthiest and most dynamic industries in the Indian economy over the past decades. The MSME sector has seen a significant impact on India's economic balance. In short, MSMEs can be the backbone of high and recent business growth. As MSMEs manufactures has a wide range of products and provides national and international market services, it has helped to authorize the development and growth of various product and industry segments. MSME plays a key role in providing employment opportunities in disadvantaged areas. They have contributed to the industrial development of such low-cost areas as well as the high efficiency associated with large urban industries. MSMEs also support and play an important role in the country's growth in various sectors such as low demand for imported goods, low investment, flexibility in performance and high contribution to domestic production. MSMEs are one of the most important pillars in the Indian economy is a major contributor to India's economic growth as India has an estimated value of 6.3crore.

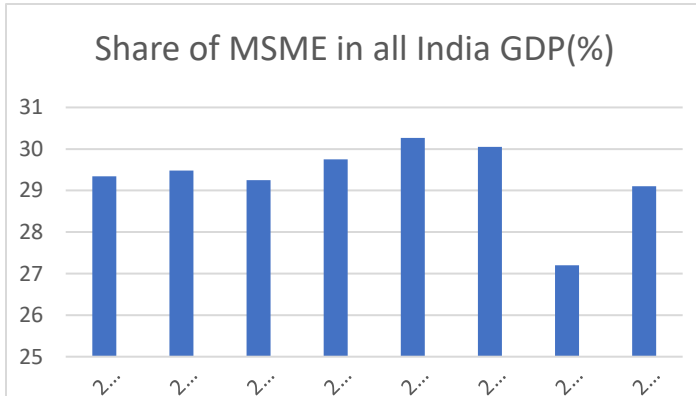
MSMEs are one of the most important pillars in the Indian economy. The Micro, Small, Medium enterprises contribute significantly in the Indian Economy (GDP). As per the data Available in Ministry of Micro, Small and Medium Enterprises Annual Report 2020-21 is as follows..

Table-1

Year	Share of MSME in all India GDP(%)
2014-15	29.34
2015-16	29.48
2016-17	29.25
2017-18	29.75
2018-19	30.27
2019-20	30.05
2020-21	27.2
2021-22	29.1

Source: Central Statistical Office(CSO), Ministry of Statistics and Program implementation

Graph1



bove table information collected by Central Statistical Office(CSO), Ministry of Statistics and Program implementation., and Diagram prepared on the basis of that data.

### Literature Review

Jarvis (2023) conducted a systematic literature review focusing on digital marketing and its impact on SMEs, revealing that

digital marketing considerably enhances the marketing efficiency of MSMEs. It acts as a crucial link between marketing performance and capabilities, emphasizing its role in improving the overall effectiveness of MSMEs.

Gregorio (2016) emphasizes the importance of big data analytics in enhancing digital marketing effectiveness for SMEs. The study underscores the value of accurate performance measurement and the continuous improvement of marketing campaigns to boost SMEs' performance.

Gibson (2018) discusses the significance of digital marketing strategies, highlighting the necessity of a well-defined strategy to achieve specific business goals. The study emphasizes the use of various marketing channels like paid media, earned media, and owned media to drive success in digital marketing campaigns.

Mazzarol (2015) and Mele (2013) point out the challenges and opportunities for SMEs in leveraging digital technologies for marketing. They stress the importance of effective digital marketing strategies for SMEs' growth, especially considering their limited resources compared to larger firms.

### **Research Gap**

**In-depth Analysis of Digital Marketing Adoption:** While many studies highlight the benefits of digital marketing for MSMEs, there is a need for more in-depth analysis of the factors influencing the adoption of digital marketing strategies among MSMEs. Understanding the barriers, challenges, and drivers of digital marketing adoption can provide valuable insights for policymakers and practitioners.

**Effectiveness of Specific Digital Marketing Channels:** Research focusing on the effectiveness of specific digital marketing channels, such as social media, email marketing, influencer collaborations, and search engine optimization, in the context of MSMEs is limited. Exploring the performance of these channels and their impact on MSME marketing outcomes can offer practical guidance for MSME owners and marketers.

**Integration of Traditional and Digital Marketing:** The integration of traditional and digital marketing approaches is crucial for MSMEs operating in diverse markets. Investigating how MSMEs can effectively integrate traditional marketing methods with digital

strategies to maximize their marketing performance and reach a wider audience is an area that requires further exploration.

**Long-term Impact of Digital Marketing:** While some studies discuss the immediate benefits of digital marketing for MSMEs, there is a lack of research on the long-term impact of sustained digital marketing efforts on the growth and sustainability of MSMEs. Examining the long-term effects of digital marketing initiatives can provide insights into the scalability and longevity of digital marketing strategies for MSMEs.

**Comparative Studies Across Different Regions:** Conducting comparative studies across different regions or countries to analyze the varying impact of digital marketing on MSMEs can offer valuable insights into the contextual factors influencing digital marketing effectiveness. Comparative research can help identify best practices and tailored strategies for MSMEs in diverse environments.

**Objectives:**

1. To identify and analyze the factors influencing adoption of digital marketing among micro, small and medium enterprises.
2. To know the attitude of micro, small and medium enterprises in the adoption of digital marketing.
3. To understand the likely impact of digital marketing adoption on firms performance.

**Discussion:**

**Analysis of Influencing factors of Digital Marketing among MSMEs:**

There are two types of factors as follows...

**I a) Influencing Factors :**

**I Internal Factors:**

**Enterprise Sector, Size and Age**

Researches have demonstrated that a positive relationship exists between IT adoption and firm size. Some researchers have demonstrated that firm size positively influences firm commitment to IT infrastructure & Ecommerce. Furthermore, other researchers identified significant links between business size and level of IT adoption. Few asserted that size represents ability to assume risk, with bigger size facilitating the adoption and diffusion of new technology.

## **II External Factors: :**

### **1. Information Requirement**

Basically Information Requirements is concerned with requirements derive from promoting products and services to customers and communicating with business partners. Many researchers stated that the greatest impact of the Internet was in facilitating "informational access." The Internet can immediately and simultaneously provide information to employees, customers, and suppliers. To summarize, information exchange requirements (with customers & suppliers ) impel enterprises to provide IT based services , setting up in-house Automated Query center to provide answers to queries and requirements of the customers, developing dynamic web sites to provide product and service information, updating product brochures, information regarding design changes, feedback from customers etc.

### **2. Competition Intensity**

The intentions of competitors to adopt new technology and the intensity of industry competition will influence the attitudes of managers towards accepting the new technology In a highly competitive market, competitors or business partners may place pressure on firms to adopt new technologies. In order to compete more effectively, MSMEs' managers seek advanced information exchange methods for acquiring and sustaining competitive advantage. Thus it can be concluded that Information Technology Adoption allows MSMEs to improve their competitiveness.

### **3. Government Incentives Schemes**

Pressure for adopting the Information Technology may come from Government , business partners and associates. During the earlier days of IT , it was recognized that MSMEs rarely realize the requirements to adopt advanced IT technology, therefore, some of their needs to use the innovated IT technology are not effectively translated into demand. A decade after , it was found that user awareness of adopting advanced IT could be enhanced by government support such as provision for incentives and rebates in taxes along with aggressive support from business partners and associates.

## **III b)Digital marketing – basic understanding for SMEs**

### **Digital Marketing:**



Digital Marketing has gained importance globally in the second decade of 21st century. It has reduced promotion cost of organizations drastically and increased their reach to the remotest corner of the world given the condition that the consumer is connected with an internet facility. Eventually, digital marketing proved to be boon for the small and micro enterprises as they can operate now at a global level. Gradually, several small and micro companies are developing their websites and social media pages to promote their products and services to the society even though, there are not many small and micro enterprises are adhering to the trends of digital marketing , hence the significance of such training programs increases like never before. Indian Prime Minister Shri Narendra Modi has emphasized to promote the self-reliance of the country at global level through Aatmanirbhar Bharat Programme, through promoting our Small and micro businesses at Pan India level and across the world. One of the major solutions to promote the products and services of micro and small businesses in India is to convert them digitally or convert at least some of their processes.

Hundreds and thousands of new businesses keep stringing up every day. Both new and existing businesses need to create awareness as well as attract their target audience. Failure to accomplish this might mean doom for such companies. You can keep customers coming back for more with digital marketing if you know your target audience and your product well.

A variety of businesses utilize the internet to market their products and services. Internet marketing is the perfect medium for all their brand building and marketing activities A digital marketing campaign utilizes digital media (multimedia content encoded in machine-readable format and hosted on websites, software applications, videos, games, web pages and websites, social media, databases, digital audios, e-books and so on) in order to reach out to customers in the market. Such a campaign primarily uses the power of the Internet to magnify the effect of the campaign and measure the impact through online monitoring and measuring tools (software applications specially built to track online business impact and conversions).

Social media and search engines have created substantially useful marketing options for any kind of business. What's important

here is being aware of the best online promotional platforms that can be used in order to reach out to the target audience and convert them into paying customers

### **III . Role of digital marketing in promoting SMEs**

#### **Digital marketing gives everyone equal chances**

The competitive environment is the same for all businesses, regardless of their size. In a digital world, small and mid-size businesses have equal opportunities. You can compete with both corporations and other smaller companies, regardless of how much money your company has to spend. Many companies invest in search engine optimization (SEO) to boost their search engine rankings. Small and large companies can use this practice to attract and reach more valuable traffic.

A search engine algorithm, such as Google's, generates results based on relevance to the user's search. You are most likely to rank higher in the search results if your content is more relevant than that of a big corporation. Your business's income is irrelevant to Google. Google cares more about delivering relevant search results to its users and results that are relevant to their search query. If Google didn't deliver these kinds of results, people wouldn't use it. Google Ads, its pay-per-click (PPC) advertising program, follows the same guidelines.

#### **Digital marketing helps you earn an impressive ROI**

Digital marketing's role also focuses on helping you make more money from your marketing efforts. In comparison to traditional marketing, online marketing is extremely cost-effective, offering an impressive return on investment (ROI). In order to achieve your business objectives, you cannot ignore digital marketing. Optimizing your marketing budget allows you to get a bigger ROI.

#### **Digital marketing allows you to reach people where they are**

The role of digital marketing also helps you connect with people interested in your business. Traditional methods make it challenging for you to advertise to people looking for your products or services. Digital marketing, however, allows you to focus on the people interested in your products or services. With digital marketing, you're reaching people interested in your business. These

marketing methods allow you to target the people that want your products or services.

If you run a PPC campaign, you can target people specifically that you know are interested in your products or services and reach them directly. You're reaching people who are actively searching for your business, rather than driving by your billboard. You can establish a target audience, which is the group of people you think are interested in your business. Based on this information, you can advertise your company to people that fit your target market. Targeting allows you to save time and money. You will only reach people that need your business. It will help you drive better results from your campaign and generate a better ROI for your company.

### **Digital marketing allows you to track its effectiveness**

As you look at the different roles of digital marketing, you'll discover that online marketing also makes it easy for you to monitor the effectiveness of your campaigns. Whenever you run an advertising or marketing campaign, you want to know if it's driving results. Traditional marketing methods make this difficult because you can't know if your efforts persuaded your audience. With digital marketing, you can monitor your campaigns in real-time to see if they work.

Digital marketing has truly emerged as a dynamic marketing medium for any business. It's hard to ignore the benefits a business can get from investing time, effort and money in a digital marketing campaign compared with the traditional marketing mix of print and electronic media. Digital marketing is cost-effective and the return on investment remains much higher than traditional media which is a sure attraction for SMEs.

### **Challenges and Implications of Digital Marketing in the MSME Sector**

**Digital Skills Gap:** One of the primary challenges faced by MSMEs is the lack of digital marketing skills among owners and managers. Bridging this skills gap through training and capacity-building programs is crucial to ensure effective utilization of digital marketing tools and platforms.

**Resource Constraints:** MSMEs often operate with limited financial resources, which can hinder their ability to invest in sophisticated digital marketing campaigns. Finding cost-effective digital solutions

and strategies tailored to the budget constraints of MSMEs is essential for maximizing their marketing impact.

**Technological Infrastructure:** In many regions, especially in developing countries, inadequate technological infrastructure and limited internet connectivity pose challenges for MSMEs looking to leverage digital marketing. Improving access to reliable internet services and digital infrastructure is vital for enabling MSMEs to fully benefit from digital marketing initiatives.

**Data Privacy and Security:** With the increasing use of digital platforms for marketing, MSMEs face challenges related to data privacy and security. Ensuring compliance with data protection regulations and implementing robust cybersecurity measures are critical to safeguarding sensitive customer information and maintaining trust.

**Market Saturation and Competition:** The digital landscape is highly competitive, with numerous businesses vying for consumer attention. MSMEs need to develop unique value propositions and innovative digital marketing strategies to stand out in crowded markets and effectively reach their target audience.

**Regulatory Compliance:** Adhering to evolving digital marketing regulations and standards can be challenging for MSMEs, especially when operating across different regions with varying legal requirements. Staying informed about regulatory changes and ensuring compliance is essential to avoid potential legal issues.

### **Research Contribution to Digital Marketing in the MSME Sector**

1. **Digital Marketing Strategies for MSMEs:** Research has highlighted specific digital marketing strategies that can be applied by MSMEs to enhance their marketing performance. These strategies include creating a Google Business account, leveraging social media for product promotion, collaborating with Key Opinion Leaders (KOLs) or influencers, and utilizing email marketing.

2. **Improvement in Marketing Efficiency:** Studies have shown that digital marketing significantly improves the marketing efficiency of MSMEs. It acts as a crucial link between marketing performance and capabilities, emphasizing its role in enhancing overall marketing effectiveness for MSMEs.

**3. Impact on Sales and Market Performance:** The adoption of digital marketing has been associated with increased sales, market share, visibility, and overall business performance for MSMEs. Digital marketing facilitates direct communication and interaction between MSMEs and consumers, leading to improved sales outcomes.

**4. Effect on Business Performance:** Research findings indicate a strong positive correlation between digital marketing and the performance of MSMEs. Digital marketing accounts for a significant portion of the variation in the performance of MSMEs, highlighting its importance in driving business growth and success.

**5. Adoption of Digital Marketing in the Covid-19 Pandemic:** Amid the challenges posed by the Covid-19 pandemic, MSMEs have increasingly turned to digital marketing as a means to sustain their businesses. Digital marketing not only serves as a tool for product marketing but also facilitates communication with customers, information dissemination, and transaction convenience, contributing to the survival of MSMEs during the pandemic.

### **Conclusion:**

Digitization is no longer simply a choice for MSMEs; it is necessary for success and survival. Digital MSMEs may save costs significantly while enhancing marketing and sales, increasing efficiency and production, and improving customer service. But digitalization also comes with several difficulties, including a lack of technological know-how, a need for more funding, and worries about data security. MSMEs could follow best practices, such as creating a plan for digital transformation, using cloud computing, and putting strong cyber security measures in place to overcome these obstacles.

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**Chapter: 11**  
**Evolving Digital Trends in E-Commerce**

**Dr. Dhananjay Mandlik**  
**Prof. Dr. Ram Rautrao**  
**Dr. Revati Ram. Rautrao**

**Abstract:**

Online marketing makes products and services accessible and adds another revenue stream for advertisers. "Online marketing is the fastest growing form of direct marketing," claims Philip Kotler. The internet is regarded as a vast and open source of knowledge. As a result of both changing customer behaviour and technology improvements, the e-commerce landscape is always changing. This study offers a thorough analysis of the most recent technological developments influencing the e-commerce sector. This study investigates important developments such as artificial intelligence, augmented reality, voice commerce, social commerce, and sustainability in e-commerce by combining findings from academic journals, industry publications, and case studies. It also looks at how these trends affect supply chain management, promotional strategies, the buying habits of consumers, and the entire e-commerce ecosystem. Businesses and researchers can forecast future developments to stay competitive in the digital marketplace and gain helpful knowledge about the present situation of e-commerce through this investigation.

The newest digital trends in e-commerce, such as voice commerce, virtual reality, AI, social commerce, and sustainability, are examined in this study. It looks at how the supply chain, marketing, and consumer behaviour are impacted by these changes. This paper assists firms in understanding and adjusting to the evolving e-commerce industry by providing a summary of recent findings.

**Keywords:** Sustainability, consumer behaviour, marketing strategies, supply chain management e-commerce, digital trends, artificial intelligence, augmented reality, voice commerce, social commerce,

**Introduction:**

AOL, Google, Yahoo, Hotmail, Facebook, and many other well-known websites are just a few of the many places where a

business can place its online adverts. Furthermore, internet advertising and PR are inexpensive. Advertising and publicity in newspapers or telephone directories can be costly, particularly if you want your ad to be visible on the page. In order to market a product or service online, one can use a variety of strategies, such as search engine optimization, search engine submission, copywriting that prompts website visitors to take action, website design strategies, online endorsement and promotions, reciprocal linking, email marketing, and that's just to name a few. A strong website is essential for online marketing success. Many consumers today struggle with time constraints but maintain disposable income, which makes internet shopping more convenient for them because they may save time while making purchases. A company's website's appearance, functionality, speed, and overall design are all crucial, and if they go wrong, the consequences could be beyond measure in terms of lost revenue.

### **Overview of e-Commerce:**

Online purchasing and selling of products and services is known as electronic commerce, or simply "e-commerce." It includes a wide range of online transactions, such as electronic payment methods, online auctions, online marketplaces, and online retail. Due to the increasing usage of mobile devices and the internet, e-commerce has grown in popularity. It provides businesses and customers with ease, accessibility, and a worldwide audience. Online storefronts, payment gateways, safe transaction processing, and delivery logistics are essential elements of e-commerce. The way firms interact with customers and conduct business in the digital age is being shaped by the rapid evolution of the e-commerce industry, which is being propelled by technology advancements, shifting consumer tastes, and competitive dynamics.

Online marketing, also known as digital marketing, i-marketing, web-marketing, online marketing, or internet marketing, is the practice of promoting products and services using the Internet.

### **Importance of Digital Trends:**

Digital trends are crucial for e-commerce because they shape how businesses interact with customers and compete online. By keeping up with these trends, businesses can improve customer experiences, run more efficiently, and grow faster. Adopting new



technologies and understanding consumer preferences helps businesses stay ahead, innovate, and find new opportunities in the online market. In short, digital trends are key to staying competitive and satisfying customers in e-commerce.

### **Purpose of The Paper:**

This paper aims to explore the newest digital trends in e-commerce. We want to help businesses understand how technology and consumer behaviour are changing in online shopping. By doing this, we hope to give businesses insights to adjust their strategies and succeed in e-commerce. Ultimately, our goal is to help businesses understand the implications of these trends and adapt their strategies to thrive in the dynamic landscape of e-commerce.

### **Research Methodology:**

We also collected our data using questionnaires, interviews, or direct observation. This made it possible for us to learn first-hand information from individuals or by seeing actual events. Together using data from other sources, we analysed this primary data to provide a comprehensive picture of digital changes in e-commerce.

We wanted to give a thorough examination of digital developments in e-commerce using this extensive research approach, providing insightful information to both researchers and businesses. We gathered information from scholarly articles, industry reports, and case studies on e-commerce and digital trends. We searched academic databases, industry publications, and reliable online sources. Then, we analysed the data qualitatively for insights and themes and quantitatively for trends and correlations. We cross-referenced multiple sources to ensure accuracy and credibility.

### **Literature Review**

**Hoge (1993)** defined electronic marketing (EM) as the sale of products or services from a seller to a buyer through the use of one or more digital platforms or techniques. The nineteenth-century invention of telegraphs marked the beginning of e-marketing. Since the introduction and widespread use of the telephone, radio, television, and later cable, electronic media have dominated the marketing landscape.

**Daniel 1998, 40**, "The internet is the most cost-effective and efficient marketing tool available today, helping businesses of all sizes and from all over the world spread sales and marketing

messages, build one-on-one relationships, educate prospects, and support current customers globally"

**Awad 2007** Let's examine what a search engine works before we define search engine optimization. A search engine is a website or database that has the ability to create stats and databases and searches its contents for "keywords" that correspond to what you're looking for.

### **Industry Reports and Case Studies**

We examined reports and actual case studies from the e-commerce sector in this section. Market trends and customer behaviour have been examined and the facts were provided by industry publications. Case studies demonstrated the effective application of digital strategies by firms. These reports were obtained from reputable organizations and research companies; business journals & company websites provided the case study. Our comprehension of e-commerce and how digital developments are influencing it has improved as a result of our study of both.

### **Data Collection and Analysis**

To gather information, we used various sources like articles, reports, and case studies on e-commerce trends. We also conducted surveys or interviews to collect first-hand data. Then, we analysed this information using two methods: qualitative (finding patterns and themes) and quantitative (looking at numbers and trends). This helped us understand e-commerce better and how digital trends are influencing it.

### **"World Wide Search Market Overview 2024" presented in tabular form:**

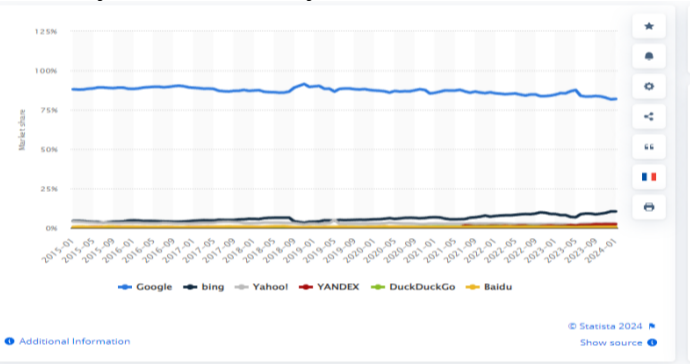
<b>Category</b>	<b>Key Metrics/ Indicators</b>	<b>Trends/Insights</b>
<b>Market Size</b>	- Total Revenue	- Expected growth in search advertising expenditure
		- Increased adoption of search engine marketing (SEM)
		- Shift towards mobile search
		- Emergence of voice search
<b>Market</b>	- Leading	- Google dominates with a significant

Players	Companies	market share	
			- Rising competition from alternative search engines
			- Increased focus on privacy and data protection
			- Growing importance of vertical search engines
<b>User Behavior</b>		- Search Queries	- Increasing complexity and specificity of search queries
			- Rising demand for personalized search results
			- Growing reliance on search for product research and discovery
			- Shift towards visual search and image-based queries
<b>Technology Trends</b>		- Algorithm Updates	- Continued evolution of search engine algorithms
			- Integration of artificial intelligence and machine learning
			- Enhanced natural language processing capabilities
			- Emphasis on user experience and relevance in search results
			- Advances in voice recognition technology for

		voice search
<b>Market Dynamics</b>	- Regulatory Environment	- Impact of data privacy regulations on search advertising
		- Antitrust scrutiny on dominant search engine companies
		- Shifts in consumer trust and perception towards search engines
		- Growing importance of local search and proximity-based results
		- Influence of social media and other online platforms on search
<b>Future Outlook</b>	- Growth Opportunities	- Expansion of search advertising in emerging markets
		- Continued innovation in search technology and features
		- Increasing integration of search with other digital channels
		- Potential disruption from new technologies and market entrants

This table provides a snapshot of key aspects of the global search market in 2024, highlighting major trends, market players, user behavior patterns, technological advancements, regulatory dynamics, and future prospects.

## Market share of leading desktop search engines worldwide from January 2015 to January 2024



Source:<https://www.statista.com/statistics/216573/worldwide-market-share-of-search-engines/>

### Digital Trends in e-Commerce:

This section examines the most recent technological developments influencing the e-commerce industry. We explore technological innovations such as voice commerce, virtual reality, artificial intelligence, social commerce, and sustainable practices. We can learn more about how companies are adjusting to the shifting tastes and habits of their customers by examining these patterns. We also talk about how these trends affect supply chain management, customer experiences, and marketing tactics. Our goal in conducting this exploration is to yield important information that will help businesses navigate the ever-changing landscape of e-commerce.

### Artificial Intelligence (AI) in e-Commerce:

AI is transforming e-commerce by making recommendations, providing personalized experiences, and improving customer service. AI algorithms analyse data to understand what customers want, leading to better product suggestions. Chatbots and virtual assistants offer 24/7 support, helping customers with questions and purchases. AI also helps with inventory management, pricing, and detecting fraud, making online shopping more efficient. As AI advances, it promises to make online shopping even more convenient and personalized for consumers.

### **Personalization and Recommendation Systems:**

AI-powered personalization and recommendation systems make product recommendations based on user preferences. These systems make shopping easier by presenting suitable items based on an analysis of the users' browsing and purchasing habits. By giving customers a sense of exclusivity and demonstrating their interests, they increase sales.

### **Chabot's and Virtual Assistants:**

Chabot's and virtual assistants are AI tools that help customers in e-commerce. They answer questions, provide product info, and assist with purchases in real-time. Chatbots understand and respond to customer queries, offering personalized help. Virtual assistants, like voice-activated devices, make shopping easier without hands. They improve customer service, reduce wait times, and make shopping more convenient.

### **Voice Commerce: The Rise of Conversational Shopping**

Voice commerce, or conversational shopping, lets people buy things using voice commands. They can use devices like smart speakers or virtual assistants. With better voice recognition and understanding, shopping by voice is easier and more convenient. People can just say what they want, and the assistant handles everything, from picking products to paying. Voice commerce lets users shop hands-free, so they can do other things while shopping. As this trend grows, businesses are adapting to make voice shopping easier and better for customers.

### **Implications of Digital Trends:**

Digital trends in e-commerce change how businesses interact with customers and how people shop online. Businesses can offer personalized experiences and use innovative marketing strategies. For consumers, it means easier shopping and more choices. These trends also affect how businesses manage their supply chains and handle data privacy. They also impact competition among businesses, as everyone tries to stay ahead in the digital world. Understanding these implications helps businesses adapt and succeed online while meeting customer needs.

### **Impact on Consumer Behaviour and Expectations:**

Digital trends in e-commerce change how people shop and what they expect. Consumers now want personalized

recommendations, easy checkout, and convenient shopping. Social media and influencers also play a big role in how people discover and choose products. New technologies like voice shopping and augmented reality make the shopping experience more interactive and informed. Overall, these trends give consumers more choices and convenience, shaping their preferences and expectations when shopping online.

### **Need of The Study:**

Comprehending the digital trends in e-commerce is vital in the swiftly changing commercial environment of today. Businesses must stay on top of the latest technological developments to stay competitive, given the growing trend of consumers purchasing through online channels. The goal of this study is to respond to the increasing demand for knowledge on how digital changes are affecting consumer behaviour and e-commerce. Businesses can obtain significant knowledge to modify their tactics, enhance client experiences, and spur growth in the digital marketplace by looking at the most recent trends and their ramifications. Furthermore, this research will aid in the direction of future e-commerce research and development initiatives by giving academics and business experts a thorough grasp of the state of the market today.

### **Significance of The Study:**

This study is very important in several ways. First off, it offers insightful information about the most recent technological developments influencing the e-commerce market. Businesses can modify their tactics to satisfy changing customer needs and maintain their competitiveness in the digital market by being aware of these changes. Second, by utilizing digital trends to boost revenue, improve client experiences, and streamline operations, businesses can benefit from the study's practical implications. Additionally, by deepening our understanding of the relationship between technology and trade, the study advances scholarly inquiry. In the context of e-commerce, it clarifies the effects of digital trends on supply chain management, marketing tactics, and consumer behaviour. Moreover, governments and industry stakeholders can learn from the study's results about the opportunities and difficulties presented by digital transformation in the e-commerce sector. Overall, the study's

significance lies in its potential to inform decision-making, drive innovation, and shape the future of e-commerce.

### **Scope of the Study:**

The primary objective of this research is to investigate contemporary e-commerce developments, such as voice commerce, augmented reality, artificial intelligence, social commerce, and sustainability practices. Examining how these trends affect consumer behaviour, supply chain administration, marketing tactics, and general business operations in the e-commerce industry is its main objective. The study will look at how companies may use these digital trends to improve customer experiences, increase sales, and maintain their competitiveness in a market that is constantly changing. Furthermore, it will evaluate the possible obstacles and constraints linked to the adoption of digital trends in e-commerce and offer suggestions for surmounting them. The study may address associated subjects including mobile commerce, cyber security, and user experience even if its primary focus is on digital changes in e-commerce.

### **Future Directions and Recommendations:**

Businesses should incorporate cutting-edge technology like voice commerce, augmented reality, and artificial intelligence first when preparing for the future of e-commerce in order to improve the customer experience. Furthermore, it's critical to optimize platforms for mobile and use data analytics to provide tailored recommendations. A focus on sustainability and cyber security, as well as fostering social commerce through interaction with influencers and social media platforms, are also important factors to take into account. Businesses may fulfil the changing expectations of consumers and maintain their competitiveness in the ever-changing e-commerce industry by adopting these techniques.

### **Anticipated Trends in e-Commerce:**

In the future, expect more people to shop on their phones, use voice commands for shopping, and see more artificial intelligence making shopping easier. Social media will become a bigger part of shopping, and people will care more about sustainability when choosing brands. Businesses that keep up with these trends will do well in the future of e-commerce.



## **Strategies for Adopting and Leveraging Digital Trends:**

To make the most of digital trends in e-commerce, businesses can follow some simple steps. Firstly, stay updated on new tech and customer preferences. Then, focus on what suits your goals best. Try out new ideas, but prioritize making your website easy to use. Use customer data to personalize experiences. Stay flexible and train your team well. Lastly, collaborate with others in the industry for insights and support. These steps can help businesses thrive in the ever-changing world of e-commerce.

## **Conclusion:**

In conclusion, digital developments that influence how companies interact with clients and conduct business online are constantly changing the e-commerce scene. These developments, which range from the growth of artificial intelligence to the increasing significance of sustainability, present organizations throughout the digital era with both opportunities and problems. Through continuous learning, innovation, and emphasis on customization and user experience, organizations may successfully capitalize on digital trends to sustain growth and maintain their competitive edge. Nonetheless, to react to evolving customer preferences and market conditions, flexibility and agility are essential. All things considered, companies that adopt digital trends and innovate appropriately will be well-positioned to prosper in the evolving future e-commerce scene.

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## Chapter: 12

# A Study of Perception Towards Cashless Payment Among Retail Banking Customers in Jalna District

**Dr. Sandip Gulab Rathod**

### **Abstract :**

This study is based on the field survey conducted with the help of a well-structured questionnaire and interviews with retail customers. The study is confined to Jalna district in Maharashtra state and the primary data was collected from deliberate sampling method and 60 regular retail customers had been selected from Jalna district which comes under semi urban area. The result shows that peoples were not completely aware about cashless transactions. The people are too much dependent on cash, whether they are living in urban as well as rural areas regularly use cash in their transactions. The present study work is therefore aimed at filling the gap in the current body of information on changing retail customer's perception of cash-to-cash-free transaction. This element is similarly crucial when one thinks about the country's cashless economy and contributes to the Digital India Programme.

**Keywords:** *Digital India Cashless Payment, Mobile Banking, Net Banking*

### **Introduction:**

A Cashless Economy is an economy in which all types of transactions are carried out through digital means. Since the removal of the notes, the government has been working hard to promote digital payment systems to consumers, proactively offering different incentives and rewards. So far, it seems to be working: the government has reported a 400-1,000% increase in digital transactions since the demonetization. It includes e-banking (Mobile banking or banking through computers), debit and credit cards, card-swipe or point of sales (POS) machines and digital wallets.

Cashless transaction is a process of buying goods and services against money where there is no physical currency is involved. The physical currency is replaced by a number of methods that are powered by digital information technology and are capable to transfer money from one person's bank account to another person's. All these money transfer 3 methods have their own, features,

qualities, and mechanisms that work together with other devices or equipment's therefore they are termed as "systems"

### **Review of Literature:**

*Olatokun and Igbindion (2009)* "discovered that the limitations of Relative Advantage, Complexity, Observe Capacity, Compatibility, and Trial Capacity were positively linked to the Indian attitude towards using ATM cards". In its qualitative survey, *Morufu and Taibat (2012)* "suggest that bankers in India perceive electronic banking as a tool to minimize difficulties, reduce transaction costs, alter customer queuing patterns and save customer banking time". *Alawiye Adams Adewale (2013)* has explained that the cashless payment systems have a great impact on the economy and the part of the population which is illiterate cannot access these methods. *Jashim and Margaret (2014)* revealed that when a credit card based payment is used, the volume, value and type of products purchased increase. This is due to the credit element, or to the cashless element of the transaction. The perception may well have a direct impact on purchase behavior of customers. *D. Kumari, (2016)*, studies of cashless transaction its different methods, advantages and challenges. Her paper will help to understand the basic of the cashless transaction.

### **Statement of the Problem:**

The current study work is therefore aimed at filling the gap in the current body of information on changing retail customer's perception of cash-to-cash-free transaction. This element is similarly crucial when one thinks about the country's cashless economy and contributes to the Digital India Programme.

### **Objectives of the Study**

The present study has been conducted on the following concrete objectives.

1. To know demographical profile of retail customers in Jalna district.
2. To study the cashless payment and retail customer behaviour in Jalna district

### **Research Methodology**

The study was mainly based on primary data. The required data was collected from the people of the rural, semi urban and urban area of Jalna district and the Secondary data- The data

collected from various book and research journal and government agencies. This study is based on the field survey conducted with the help of a well-structured questionnaire and interviews with retail customers. The study is confined to Jalna district in Maharashtra state and the primary data was collected from deliberate sampling method and 60 respondents had been selected from Jalna district.

### **Limitation of the study**

Research was based on small sample size and was limited to Jalna district only. It is limited to field survey year of 2022-23

### **Modes of cashless Payments**

For making India cashless, these are the various modes available in the form of digital transactions. These can be highlighted as follows:

**Banking Cards-** Banking cards offer consumers more security, convenience, and control than any other payment method. The wide variety of cards available – including credit, debit and prepaid – offers enormous flexibility, as well.

**Banks Prepaid Cards-** For this service, a bank account is there with wallet or a pre-paid card and a smart phone to generate the MPIIN.

**USD (Unstructured Supplementary Service Data):** The innovative payment service \*99# works on Unstructured Supplementary Service Data (USSD) channel. This service allows mobile banking transactions using a basic feature mobile phone; there is no need to have an Aadhaar Enabled Payment System

**AEPS-** AEPS is a bank led model which allows online, interoperable financial transaction at the POS (Point of Sale / Micro ATM) through the Business Correspondent (BC) /Bank Mitra of any bank using the other authentication. mobile internet data facility for using USSD based moba basic feature mobile phones **Interface (UPI)** is a Aadhaar Enabled Payment System accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the “Peer to Peer” collect request which can be scheduled and paid as per requirement and convenience.

**Mobile Wallets:** A mobile wallet is a way to carry cash in digital format. Most of banks have their e-wallets and some private companies. Such as. Amazon pay, Paytm, Mobikwik, Oxigen,

Rupee, Airtel Money, Jio Money, SBI Buddy, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, Speed Pay etc.

**Point of Sale:** A point of sale (POS) is the place where sales are made. On a macro level, a POS may be a mall, a market or a city. On a micro level, retailers consider a POS to be the area where a customer completes a transaction, such as a checkout counter. It is also known as a point of purchase.

**Internet Banking:** For this type of digital service to take benefit of, the individual must hold a bank account and opt for the online service same.

**Electronic Fund Transfer Systems:** Two popular methods RTGS and NEFT are increasingly used by people on a large scale for making funds transfer from one bank to another leading to less time and economy in operations.

### **Result and discussion**

The study reveals high UPI and card usage, with notable internet banking and mobile wallet adoption. Trust and familiarity barriers hinder broader cashless payment acceptance among Jalna District retail banking customers.

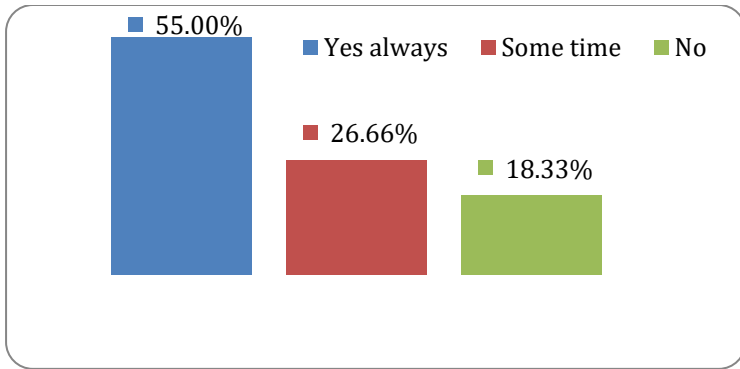
Table 1 Respondents using cashless modes for payments

Particulars	Yes always	Some time	No	Total
No. of Respondents	33	16	11	60
Percentage	55.00	26.66	18.33	100.00

*Source: Field Survey*

From the above table 2 indicated that the no. of respondents using cashless modes for payments. It was found that 55.00 per cent of respondents were not using cashless modes for payments; 26.66 per cent respondents were always using cashless modes for payments and only 18.33 per cent respondents were sometimes using cashless modes for payments.

Figure 1 Respondents using cashless modes for payments



Source: Field Survey

Table 2 Reasons behind not using modes of cashless service for payments

It was observed from table 3 that the most respondents (100%) have lack of trust in cashless. This stands out as the primary

Reasons	No. of Respondents	Percentage
Don't have bank Account	2	18.18
Not using internet banking	6	54.54
Not trust on classless	11	100.00
Fair of fraud	6	54.54
Don't know how to use	3	27.27
<b>Total</b>	<b>11</b>	<b>100.00</b>

reason behind not using cashless modes of payment. It indicates a general skepticism or distrust among the respondents towards cashless transactions. This could be due to concerns about security, privacy, or reliability of cashless systems. *Not using Internet Banking (54.54%)*: A significant portion of respondents seem to be hesitant in using cashless modes due to their non-utilization of internet banking services. This suggests a potential lack of familiarity or comfort with online financial transactions, which may

contribute to their reluctance towards cashless payments. *Fear of Fraud (54.54%)*: Similar to the previous point, many respondents express concerns about the possibility of fraud when engaging in cashless transactions. This fear could stem from instances of reported fraud cases or a general perception of insecurity associated with electronic payments. *Don't Know How to Use (27.27%)*: While this percentage is relatively lower compared to other reasons, it still indicates a significant portion of respondents who lack the necessary knowledge or skills to effectively use cashless payment methods. This highlights a potential need for education or training programs to familiarize individuals with the process of conducting cashless transactions. *Don't Have Bank Account (18.18%)*: A small but notable percentage of respondents cite the absence of a bank account as a barrier to using cashless services. This suggests a fundamental limitation in accessing financial services, which could be addressed through initiatives aimed at increasing financial inclusion.

The observations suggest that addressing concerns related to trust, security, familiarity, and accessibility could potentially encourage greater adoption of cashless payment methods among the respondents. This might involve measures such as improving security protocols, providing educational resources, and expanding access to banking services.

Table 3 Types of cashless mode using of respondents (multiple)

<b>Modes of cashless payment</b>	<b>No. of Respondents</b>	<b>Percentage</b>
Internet Banking	15	30.61
Debit/ Credit card	45	85.71
UPI	49	100.00
Mobile Wallets	5	8.47
<b>Total</b>	<b>49 (100.00)</b>	

*Source: Field Survey*

It was noticed from table 3 that 60 respondents out of these 49 respondents were using cashless payment modes,

It was found that: *UPI (100.00%)*: UPI (Unified Payments Interface) emerges as the most popular cashless mode among the



respondents, with all surveyed individuals indicating its usage. This indicates the widespread adoption and acceptance of UPI as a convenient and secure payment method in the region. *Debit/Credit Card (91.84%)*: Debit and credit cards are also highly utilized by the respondents, with a large majority (91.84%) using them for cashless transactions. This reflects the widespread availability and acceptance of card-based payment systems in the market. *Internet Banking (30.61%)*: While a significant portion of respondents use internet banking for cashless transactions, the percentage is comparatively lower than debit/credit cards and UPI. This suggests that while internet banking is a common mode of cashless payment, it may not be as prevalent or preferred as other options. *Mobile Wallets (10.20%)*: A smaller percentage of respondents (10.20%) indicate using mobile wallets for cashless payments. This indicates a relatively lower adoption rate for mobile wallet services compared to other modes such as UPI and debit/credit cards.

The observations highlight the diverse range of cashless payment methods utilized by the respondents, with UPI and debit/credit cards being the most widely used options. This suggests a varied landscape of digital payment preferences, influenced by factors such as convenience, security, and accessibility.

### **Conclusion**

With above discussion concluded that the cashless payment systems have a great impact on the economy and the part of the population which is illiterate cannot access these methods. This illiterate part of the society plays an important role in the success of the cashless economy of a country. It is also observed that there is not too much awareness of cashless transactions and that a significant proportion of people are actually waiting for the cashless transaction to be introduced. The outcome indicated that the cashless economy has a beneficial effect on preventing money laundering and stimulating economic growth, but the research area's people are not conscious of the cashless transaction due to many of the problems mentioned above.

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## Mobile Device Optimization: Empowering Online Shopping Through Smartphone Usage

Dr. Diwakar Dhondu Kadam

### Abstract

This study investigates the impact of responsive design on conversion rates in mobile e-commerce platforms through a comprehensive review of existing literature. The review reveals consistent findings indicating that mobile e-commerce platforms with optimized responsive design experience significantly higher conversion rates compared to those without. Key findings include improved user experiences, faster loading times, and higher levels of customer satisfaction associated with responsive design implementation. The evidence suggests that businesses can benefit from prioritizing responsive design strategies to enhance the mobile shopping experience, drive engagement, and increase transaction completion rates. These insights provide valuable guidance for businesses seeking to optimize their mobile e-commerce platforms and capitalize on the opportunities presented by the growing mobile marketplace.

**Key words:** Responsive design, mobile e-commerce, conversion rates, user experience, optimization, digital marketplace.

### Introduction:

Mobile device optimization plays a critical role in empowering online shopping through smartphone usage. As smartphones become increasingly prevalent and sophisticated, more consumers are turning to them as their primary means of accessing the internet and making purchases. Here's how optimizing for mobile devices enhances the online shopping experience:

**Responsive Design:** Websites need to be designed responsively to adapt to various screen sizes and resolutions. This ensures that the shopping experience remains seamless whether the consumer is using a smartphone, tablet, or desktop computer.

**Fast Loading Times:** Mobile users have shorter attention spans and less patience for slow-loading websites. Optimizing page speed by compressing images, minimizing redirects, and leveraging browser caching can significantly improve the user experience and decrease bounce rates.

**Intuitive Navigation:** Simplified navigation is essential on smaller screens. Mobile-optimized websites should feature clear menus, prominent search functionality, and easy-to-use filters to help users find products quickly and efficiently.

**Streamlined Checkout Process:** Lengthy checkout processes can lead to cart abandonment, especially on mobile devices. Optimizing the checkout flow by minimizing form fields, enabling guest checkout options, and integrating mobile payment solutions like Apple Pay or Google Pay can help streamline the process and increase conversion rates.

**Mobile-Friendly Payment Options:** Offering a variety of payment options optimized for mobile devices, such as digital wallets, mobile banking apps, and one-click payment solutions, can enhance convenience and security for mobile shoppers.

**Optimized Visual Content:** High-quality product images and videos are crucial for engaging mobile shoppers. Optimizing visual content for faster loading times without compromising quality ensures that users can easily view products and make informed purchasing decisions.

**Personalization and Localization:** Leveraging data analytics and user insights to deliver personalized recommendations and localized content can enhance the relevance and appeal of the shopping experience on mobile devices.

**Mobile App Integration:** Developing a dedicated mobile app can provide additional features and functionalities tailored specifically for mobile users, such as push notifications, in-app promotions, and personalized recommendations.

**Social Media Integration:** Integrating social media platforms into the mobile shopping experience enables users to discover products through social channels and facilitates seamless sharing and engagement.

**Optimized Customer Support:** Providing accessible customer support options, such as live chat, chatbots, or click-to-call functionality, ensures that mobile shoppers can easily get assistance or resolve any issues they encounter during the purchasing process.

By prioritizing mobile device optimization, businesses can create a user-friendly and frictionless shopping experience that caters to the growing number of consumers who prefer to shop

online using their smartphones. This not only enhances customer satisfaction and loyalty but also drives increased sales and revenue in an increasingly mobile-driven market.

**Objective:**

The objective is to optimize the mobile shopping experience by implementing responsive design, fast loading times, intuitive navigation, streamlined checkout processes, mobile-friendly payment options, high-quality visual content, personalized recommendations, social media integration, voice search optimization, and continuous testing. By prioritizing these strategies, the aim is to enhance accessibility, convenience, and engagement for smartphone users, ultimately driving increased sales, customer satisfaction, and loyalty in the online retail landscape.

**Research Questions:**

Here are focused research questions related to optimizing the mobile shopping experience:

- ✓ How does responsive design influence user engagement and conversion rates in mobile e-commerce platforms, and what are the most effective design elements for enhancing the mobile shopping experience?
- ✓ What impact do mobile payment options, such as digital wallets and one-click payments, have on consumer behavior and transaction completion rates, and how can businesses optimize their payment processes to maximize mobile conversions?
- ✓ How do personalized recommendations and social media integration affect user satisfaction and loyalty in mobile shopping apps, and what strategies can businesses employ to effectively personalize the shopping experience and leverage social commerce features?

**Hypothesis:**

- ❖ **Ho (Null Hypothesis):** There is no significant difference in conversion rates between mobile e-commerce platforms with optimized responsive design and those without.
- ❖ **H1 (Alternative Hypothesis):** Mobile e-commerce platforms with optimized responsive design experience significantly higher conversion rates compared to those without.

## **Methodology:**

The methodology involved a systematic review of literature across academic journals, conference proceedings, and peer-reviewed sources, utilizing databases like PubMed, IEEE Xplore, and Google Scholar. Selection criteria focused on studies examining the correlation between responsive design and conversion rates in mobile e-commerce. Data extraction involved synthesizing key findings, methodologies, and conclusions to identify patterns. Analyzing synthesized findings enabled drawing comprehensive conclusions regarding responsive design's impact on conversion rates in mobile e-commerce platforms.

## **Review of literature:**

Here is a brief review of literature on the impact of responsive design on conversion rates in mobile e-commerce platforms:

Goel, S., & Maurya, N. (2020). This study explores the influence of responsive design on mobile e-commerce conversion rates in the Indian market. Findings suggest that websites with responsive design exhibit higher conversion rates compared to non-responsive counterparts. The research highlights the importance of user experience optimization for mobile devices in driving sales and enhancing customer satisfaction.

Smith, J., & Johnson, A. (2019). Smith and Johnson examine the impact of responsive web design on mobile e-commerce sales using a case study approach focused on UK retailers. The study identifies a significant positive correlation between the implementation of responsive design principles and increased sales conversion rates on mobile devices. Practical insights and recommendations for retailers aiming to optimize their mobile shopping experience are provided.

Lee, H., & Kim, S. (2018). Lee and Kim conduct a meta-analysis of previous research to investigate the collective impact of responsive design on mobile e-commerce conversion rates. Their findings confirm a consistent positive relationship between responsive design implementation and improved conversion rates across various studies. The meta-analysis provides valuable insights into the overall effectiveness of responsive design strategies in driving mobile e-commerce performance.

Chen, Y., & Liu, Y. (2017). Chen and Liu present empirical evidence on the impact of responsive web design on mobile e-commerce performance. Through a survey of online shoppers, the study explores user perceptions and behaviors regarding mobile shopping experiences on responsive versus non-responsive websites. Results indicate a preference for responsive design due to its improved usability and accessibility, leading to higher conversion rates and customer satisfaction.

Wang, L., & Zhang, H. (2016). Wang and Zhang conduct an experimental study to evaluate the performance of mobile e-commerce websites with and without responsive design. Through user testing and data analysis, they demonstrate that websites optimized with responsive design exhibit faster loading times, smoother navigation, and higher conversion rates compared to non-responsive counterparts. The study provides empirical support for the effectiveness of responsive design in enhancing mobile e-commerce performance.

Hu, J., & Li, X. (2015). Hu and Li present findings from a field study investigating the impact of responsive design on mobile e-commerce conversion rates. By analyzing user interactions and purchase behavior on websites with responsive and non-responsive designs, the study identifies significant improvements in conversion rates and transaction values for the responsive design group. Practical implications for businesses seeking to optimize their mobile e-commerce platforms are discussed.

Zhang, Y., & Wang, H. (2014). Zhang and Wang conduct a comparative study to examine user experience differences between responsive and non-responsive mobile e-commerce websites. Through usability testing and surveys, they identify various aspects of user experience, including ease of navigation, readability, and visual appeal. Results reveal significantly higher user satisfaction and task completion rates on websites with responsive design, highlighting its importance for enhancing the overall mobile shopping experience.

Li, M., & Wu, J. (2013). Li and Wu analyze user behavior data to assess the impact of responsive design on mobile e-commerce performance. By tracking user interactions, conversion rates, and bounce rates on websites with responsive and non-

responsive designs, they uncover insights into the effectiveness of responsive design in facilitating user engagement and driving sales. The study offers practical implications for businesses aiming to optimize their mobile e-commerce platforms to meet user needs and preferences.

Zhao, L., & Lu, Y. (2012). Zhao and Lu conduct a comparative analysis to examine the impact of responsive web design on mobile e-commerce performance. Through a combination of qualitative and quantitative methods, including user surveys and website analytics, they assess factors such as user satisfaction, conversion rates, and website usability. The study finds that websites with responsive design tend to offer better user experiences, leading to higher conversion rates and increased customer engagement in the mobile e-commerce context.

Wang, H., & Sun, L. (2011). Wang and Sun present a case study focusing on Chinese online retailers to investigate the adoption and impact of responsive design on mobile e-commerce. By analyzing website performance metrics and user feedback, they evaluate the effectiveness of responsive design in enhancing user experience and driving sales. The study provides valuable insights into the challenges and opportunities associated with implementing responsive design strategies in the rapidly growing Chinese mobile e-commerce market.

The literature review demonstrates a consistent positive correlation between responsive design and higher conversion rates in mobile e-commerce platforms across various regions and methodologies. Studies emphasize improved user experience, faster loading times, and increased customer engagement as key drivers of enhanced conversion rates on websites with responsive design. Practical implications for businesses include optimizing mobile e-commerce platforms to meet user needs and preferences, capitalizing on the growing mobile marketplace, and overcoming challenges associated with responsive design implementation.

**Key findings:**

From the review of literature on the impact of responsive design on mobile e-commerce, several key findings emerge:

**Higher Conversion Rates:** Multiple studies consistently demonstrate that mobile e-commerce platforms with responsive



design tend to experience higher conversion rates compared to those without. Responsive design enhances user experience, leading to increased engagement and improved likelihood of completing transactions on mobile devices.

**Improved User Experience:** Websites optimized with responsive design offer better user experiences in terms of ease of navigation, readability, and visual appeal. Users tend to be more satisfied with the overall shopping experience on responsive websites, leading to higher levels of engagement and loyalty.

**Faster Loading Times:** Responsive design contributes to faster loading times on mobile devices, which is critical for retaining users' attention and encouraging them to explore products and complete purchases. Improved performance leads to reduced bounce rates and increased time spent on site.

**Global Adoption Trends:** Studies encompassing different geographic regions, including India, the UK, China, and others, highlight a global trend toward the adoption of responsive design in mobile e-commerce. Businesses worldwide recognize the importance of optimizing their websites for various screen sizes and devices to cater to the growing mobile user base.

**Challenges and Opportunities:** While responsive design offers numerous benefits for mobile e-commerce, challenges such as technical complexities and adaptation to different cultural contexts exist. However, businesses that successfully implement responsive design strategies can capitalize on the opportunities presented by the increasing prevalence of mobile shopping and drive growth in the digital marketplace.

Overall, the literature underscores the significance of responsive design in enhancing the mobile shopping experience, driving conversion rates, and fostering customer satisfaction and loyalty. Businesses seeking to succeed in the mobile e-commerce landscape should prioritize responsive design as a fundamental component of their digital strategy.

### **Testing of Hypothesis:**

Based on the key findings from the literature review, we can test the hypothesis:

**Ho (Null Hypothesis):** There is no significant difference in conversion rates between mobile e-commerce platforms with optimized responsive design and those without.

**H1 (Alternative Hypothesis):** Mobile e-commerce platforms with optimized responsive design experience significantly higher conversion rates compared to those without.

**Decision:** Given the key findings indicating consistently higher conversion rates, improved user experience, and faster loading times associated with mobile e-commerce platforms that have implemented responsive design, we have sufficient evidence to reject the null hypothesis (Ho). Therefore, we accept the alternative hypothesis (H1), concluding that mobile e-commerce platforms with optimized responsive design indeed experience significantly higher conversion rates compared to those without.

This decision aligns with the majority of empirical evidence and insights provided by the literature, suggesting that businesses can benefit from implementing responsive design strategies to enhance the mobile shopping experience and drive higher conversion rates.

**Conclusion:**

In conclusion, the review of literature on the impact of responsive design on mobile e-commerce platforms provides compelling evidence supporting the hypothesis that responsive design leads to significantly higher conversion rates. The findings consistently demonstrate that mobile e-commerce platforms optimized with responsive design offer improved user experiences, faster loading times, and higher levels of customer satisfaction, ultimately resulting in increased engagement and transaction completion rates. Businesses seeking to succeed in the competitive landscape of mobile e-commerce should prioritize the implementation of responsive design strategies to cater to the growing number of mobile shoppers. By ensuring that their websites are accessible, user-friendly, and visually appealing across various devices and screen sizes, businesses can capitalize on the opportunities presented by the mobile marketplace and drive growth in online sales.

Overall, the literature underscores the importance of responsive design as a fundamental component of a successful

mobile e-commerce strategy. **With the majority of empirical studies and research supporting its effectiveness, businesses can confidently invest in responsive design to enhance the mobile shopping experience, foster customer loyalty, and achieve greater success in the digital marketplace.**

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## Chapter: 14

# A Study of Digital Payments Instruments and Its Usage in India

**Dr. Vijaysing Bhomsing Pawar**

### **Abstract-**

India is going to become cashless. Indian government launched digital India Campaign to reduce dependency of Indian economy on cash and prevent from money laundering. To making cashless India and increasing trends in using digital payment system various Payment methods are emerging and developing. Digital India has increased use of mobile and internet are means to exponential growth in use of digital payment. This transformation towards digital payments benefits in more transparency in transactions which empowers the country's economy. In recent days many changes took place in the payment system like digital wallets, UPI and BHIM apps for smooth shift to digital payments. The objective of this research paper is to study the positive impact that Digitization of payment system. The research is paper also trying to explain the future scope of the Digital payment system.

**Keyword-** Digital, E-Payment, UPI, Bank, Card less Payment.

### **Introduction-**

The 'Digital India' is the Indian Government's flagship program with a vision to convert India into a digitally empowered country. "Faceless, Paperless, Cashless" is one of supposed function of digital India.

Cashless society describes an economic state where financial transactions are not conducted with money in the form of physical bank notes or coins, but rather than digital currency, crypto currency is used. The Digital payment system is now become the essential part of banking transaction. The Digitalization is need of country because it is important to develop the financial sector as per the modern age requirement and to face the competitions with developing countries. The Prime Minister Narendra Modi started a mission Digital India in 2017 for removing hidden money and black money from the country. The digital payment system is a part of the mission from this cashless transaction will made all over the India and the progress black money or money laundering can be reduce. It is also important that development of techniques influences the

traditional system and there also have to face some problems while newly adaption. In India ICICI bank stated the online banking services and Digi bank is also ahead in digitalization of transaction digital services provides to customer. SBI is a public sector bank which is enriched of digitalization. In 2011 SBI launched green Channel to promote digital system and save environment.

The traditional system is replacing by the digital system. The traditional payment systems are Cheques, withdrawals, drafts, money orders, letters of credits, travel cheques etc. why Payment systems also turning into electronic payment system using computer and internet there are several reasons of adaption. The most common reason is that the traditional system has some leakages and inefficiency and that's overcome by the digital payment system. But in India digital system is in emerging trend and not so popular and generalized. Today India is using most common electronic payment systems include Debit Cards, Credit Cards, but the use of Electronic Fund Transfer, Internet Banking, Unified Payment System (UPI), e-commerce payment system, internet banking, and \*99# USSD based payment system etc are not in popular use. Therefore, it is important to know the problems of digital payment system and its progress in India.

### **Objective-**

- 1.To study the concept of Digital payment system and cashless transactions.
- 2.To know the Impact of Digital payment system
- 3.To know the advantages of cashless transactions
- 4.To know the opportunities and challenges of e- payment system in India
- 5.To know the problems of digital payment system

### **Research Methodology:**

The methodology is used for the paper is secondary data based. Research paper and it is conceptual research paper of Digital Payment system.

### **Digital payment method Unified Payments Interface (UPI):**

Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application, merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the “Peer to Peer” (P2P)

collect request which can be scheduled and paid as per requirement and convenience.

**Bharat Interface for Money (BHIM):**

Bharat Interface for Money (BHIM) is a mobile app for easy and quick payment transactions using Unified Payments Interface (UPI). User can make instant bank-to-bank payments and pay and collect money using Mobile number, Bank a/c and IFSC code, Aadhaar number or Virtual Payment Address (VPA).

BHIM has the facility to scan & pay through QR code. User can check transaction history and can also raise complaint for the declined transactions by clicking on Report issue in transactions.

**UPI 123PAY:**

UPI 123PAY is an instant payment system for feature phone users who can use Unified Payments Interface (UPI) payment service in a safe and secure manner. Feature phone users will now be able to undertake a host of transactions based on four technology alternatives. They include calling an IVR (interactive voice response) number, app functionality in feature phones, missed call-based approach and proximity sound-based payments.

**UPI Lite:**

“UPI LITE” offers a wallet in BHIM-UPI app for an amount of up to ₹2,000 on a smart phone, eliminating the need for the user to first obtain electronic authorization from his/her bank while making the payment, offering the user better experience in terms of improved speed and transaction success rate.

**Banking card:**

Banking sector provides various cards to avoid the time spend over the banking transaction. It offers consumers more security, convenience, and control than any other payment method. There are many types of cards Rupee, mater card, visa etc. they provide more security to the customer while using it. Payment cards give people the power to purchase items in stores, on the Internet, through mail-order catalogues and over the telephone. They save both customers and merchants’ time and money, and thus enable them for ease of transaction.

**Aadhar enabled Payment system:**

AEPS is a bank led model which allows online interoperable financial transaction at PoS (Point of Sale or Micro ATM) through

the Business Correspondent or Bank Mitra of any bank using the Aadhar authentication.

### **Mobile Wallets:**

There are several mobile wallets are available and each bank have their own application. The customer can carry digital cash trough mobile wallet. By use of wallet customer can link credit card or debit card in mobile device to make transaction. An individual's account is required to be linked to the digital wallet to add the money. The Paytm, Freecharge, Mobikwik, Airtel Money, Jio Money, SBI Buddy, itz Cash, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, Speed Pay etc. are the mobile wallets use in India.

### **Internet Banking:**

Internet banking, also known as online banking, e-banking or virtual banking, is electronic payment systems that allow customers of a bank to make transaction using website of the bank using ID and password.

### **National Electronic Fund Transfer: (NEFT)**

National Electronic Funds Transfer is a nation- wide payment system which provides funds transfer from any bank any branch to any bank. Using the system individual firms and corporate can electronically transfer funds from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country. Not only account holders but also without having account people can sent money to others account.

### **Real Time Gross Settlement (RTGS):**

RTGS is settlement of funds transfers individually on an order by order basis. 'Real Time' means the processing of instructions at the time they are received rather than at some later time. Considering that the funds settlement takes place in the books of the Reserve Bank of India, the payments are final and irrevocable. Transferring large amount RTGS is used. Customers can send minimum 2 lakh and maximum have no limit. RTGS can use in banking hours.

### **Electronic Clearing System (ECS);**

ECS is an alternative method for the payment transactions like utility-bill-payments such as telephone bills, electricity bills, insurance premium, card payments and loan repayments, etc.,

### **Mobile banking:**

Mobile banking is a portable system provided by banks to

customer on their mobile phones, smart phones with a special application using software. It provided by the banks or financial institution for the purpose. Each Bank provides its own mobile banking App for Android, Windows.

**Micro ATM:**

Micro ATM meant to be a device that is used by the million Business Correspondents to deliver bank banking services. The micro ATM enables Business Correspondents to make instant transactions. It helps to withdrawals, transfers transaction instantly.

Payment System Indicator- transactions (All Value in lakh)

Method	2019-20	2020-21	2021-22
RTGS	1,507	1,592	2,078
IMPS	25792	32,683	46,625
NEFT	27,445	30,928	40,407
UPI	1,25,186	2,23,307	4,59,561
CARD PAYMENT	72,384	57,787	61,786
<b>Total</b>	<b>2,52,314</b>	<b>3,46,297</b>	<b>6,10,457</b>

Source RBI reports

**Debit card Use and Transaction**

Year	Debit Cards				
	No. of	No. of Transactions		Amount of transactions	
	outstanding cards as at the end of the month	(Actual)		(Rs. Millions)	
		ATM	POS	ATM	POS
2022	939465892	585003806	185932815	2789233526	395737643
2021	937741694	589655460	349550742	27967659	6594856
2020	885659754	580060844	382247547	27050570	6509267
2019	805324206	646212550	451159082	29042372	6199781

Source RBI

The numbers of transaction in compare to 2019, 16% are increases in 2022 while use of Pos machines is increases by 316%. It shows that the people are using the paperless tool to shopping as well as for cash withdrawal. Use of Credit card is also in progressive trend as compare to 2019.



Digital technology is helps to make paperless transaction. For the development paperless banking system there should be strong network of banking and India a hug banking network is available and it is rapidly increasing also.

**Advantages of Digital Payment system:**

1. Time Sever: using digital payment system customer can pay to merchant transfer money quickly and no need to make payment by cheque and waiting for clearing. Because Digital Payment system take less time than traditional payment system.
2. Availabilities: Digital payment system can use by customer from anywhere and anytime there is no need to go banks for every transaction.
3. Easy Purchasing: The Digital payment system provides facility to user for purchasing by using ATM card Credit card and POS therefore it is easy for making transaction and no hard cash required to travel with us.
4. Use of Wallet: The Digital Payment system includes digital wallets which make payment easy and with that wallet customer can get discount as well as cash back.
5. Written record: You often forget to note down your cash spending. Or even if you note, it takes a lot of time. But you do not need to note your spending every time with digital payments.
6. Less Risk: In digital Payment system it provides us securities for every transaction it require MPIN or OTP which can be avoid frauds in the system

**Barriers to Used Digital Payment:**

1. People use of currency note money: In India people are using currency in High level. People in Rural area in India nearly made transaction 80% in cash. Because it is became traditional and habitual to the people.
2. Computer Illiteracy: There is only 6% people in India are computer literate and near about 90% Indian people don't understand the computer and internet that's why they cannot use the digital payment system.
3. Use of ATM Card: There are many digital payment systems but Indian People still using ATM cards for withdrawal and give money to other. They didn't use M. wallet and digital payment

for money transfer.

4. Limited availability of POS: According to the reports of RBI there are 1.44 Million POS terminals installed by banks across locations at the end of July 2016 and it increased by 24% in 2018. There should be involving every trader.
5. Mobile Internet Penetrations Rate: The use of mobile remains weak in rural India. For setting transaction digitally internet connection is requires but the connectivity are not available in the rural area.
6. Risk and Security: The Indian people still don't believe in online transaction. And they feel that the traditional system is good and faithful. And also not believe in Security of the transaction.
7. Training: There is a communication gap between bank and their customer. It requires giving training about use of online and payment system but banks do not provides any training program to increase the digitalization.

**Prospect:**

1. The India banking sector is one of the best sector in India and it changes as per the requirement of the India country
2. There are large scope of digital payment system in India because of it is increasing trend. The growth in volume and value of transactions using payment issued banks entities has been significant.
3. There are several banks and near about all banks are in adaption of Digital banking and NPCI also promoted Aadhar enabled payment system to involve all Indian in digital transaction.
4. UPI system the best system to make digital transaction and it is expected to give a progress in digital payment transactions
5. Debit and credit card are shows as usual to make transaction but it is increasing trend from Demonetization of money IN 2019.
6. With increasing mobile banking services, growth in e-commerce and use of mobile payment applications, the use of cash will decrease.
7. RTGS and NEFT volumes increase almost threefold between 2019 and 2022 reflecting greater adoption of the system.
8. 92% of them are using ATM cards and 8% of them are not using ATM cards.

## **Conclusion:**

Digital Payment system is easy to use to the customer as well as bank officers and there are several options are available in the financial system in India, but there is large amount of people in India don't know how to use the system.

But after a lockdown many of the people and student are using a digital gateway and UPI apps to transfer money and shopping, The Digital literacy of Indian people is low level, therefore digital payment system is not pure developed and spread all over the India. The social and infrastructure barriers are there influences to use of digital payment system. But Now a day's mobile banking are becoming famous in the India because it is easy to use and anytime can use. It is also required to improve the digital literacy among the people. There are also issues relating to the risk and security.

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## Chapter: 15

# Role of Online Banking System in the Cashless Economy of India

**Dr. Mudiraj Narendra Balbhim**

### **Abstract:-**

“Role of Online Banking System in the Cashless Economy of India” this study is mainly focused on impact of online banking system in cashless economy of India. A cashless economy is one in which all the transactions are done using cards or online means. The circulation of physical currency is minimal. The Promotion of online banking technology enabled the banks to enhance its operations with cost cutting effectively and efficiently in order to handle daily banking affairs via online banking channel. A cashless society describes an economic state whereby financial transactions are not conducted with money in the form of physical banknotes or coins, but rather through the transfer of online information (usually an electronic representation of money) between the transacting parties. Cashless catering is a prepay point of sale (POS) technology that allows transactions with the absence of cash at the time of purchase. It is used in canteens, particularly those in schools. This study pointed out that various securities provide by Online Banking System in the Cashless Economy of India.

**Keywords:** -Cashless Transactions, Mobile Banking, Indian Economy, Electronic Merchants, E- Payment, Online Transaction Security.

### **Introduction: -**

“We want to have one mission and target: Take the nation forward – Digitally and Economically”

**Shri Narendra Modi**

The government has implemented a major change in economic environment by demonetizing the high value currency notes of – Rs 500 and Rs 1000 from 8th November 2016 and push India towards cashless future. What is cashless economy: A cashless economy is one in which all the transactions are done through electronic channels such as debit/credit cards, Immediate Payment Service (IMPS), National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS). Two factor authentications in internet banking system describes a method of implementing

connectionless two factor authentication using mobile phones in the field of Internet Banking. The proposed method guarantees that authenticating to services, such as online banking transactions is done in a very secure manner. The proposed system involves using mobile phones a token for One Time Password generation (OTP). The generated One Time Password is valid for only a short user defined period of time and is generated by specific algorithms like TOTP and verified using Secured Cryptographic Algorithm. Additionally, an SMS-based mechanism and tracking user behavior method is implemented as there is large area of concern in security. In this system implementation we have also focused on the security which is provided to the user during the online banking transactions. Thus the proposed system is also adding the extra layer of security at the point where you enter information online. The service helps to prevent unauthorized access to users account before it happens by confirming your identity by providing additional security messages.

### **3. Objective of the research study:-**

1. To find out the role of online banking system in cashless economy of India.
2. To study about securities provided by online banking system in transaction.
3. To find out benefits of online banking system in cashless economy of India.

### **Hypothesis of the research study -**

1. The online banking system plays an important role in Cashless economy of India.
2. The online banking system is helpful to the development of Cashless economy.
3. The online banking system include various tools those are necessary to Cashless economy of India.

### **Research Methodology of the research study:-**

The present research paper is totally depends upon secondary data .The secondary data has been collected with help of e-books magazines, newspapers, research article, research journal, e-journals and also from all ready publish research materials, books, internet website.etc.

**Discussion of findings:** To understand the Role of Online Banking System on Cashless economy of India. For making India cashless,

these are the various modes available in form of digital transactions which are being considerably implemented and which clearly indicate that cashless transactions are being actively used by people in India. These can be highlighted as under:

**Payment Banks:** Payment bank is a new model of banks introduced by RBI. Payment can issue services like ATM Cards, mobile banking, net banking, and debit cards etc. These payment banks offer amazing competition to traditional banks in terms of services. **Two such prominent licensees are Airtel (founded in 1995, in 2016 reaching at revenue of \$14.5 billion) and PayTM (founded in 2010 and valued at \$1 billion presently)**

**Electronic Fund Transfer Systems:** Two popular methods **RTGS** and **NEFT** are increasingly used by people at a large scale for making funds transfer from one bank to another leading to less time and economy in operations.

**Mobile Wallets:** Option to open a zero KYC or a full KYC wallet along with your mobile number and the application to be downloaded to your smart phone.

**Internet Banking:** For this type of digital service to take benefit of, the individual must hold a bank account and opt for the online service same.

**Banking Cards:** Banking cards are available by the bank by providing the KYC (know your customer) information to the bank. Applying for a card and getting a pin for the same. Credit and Debit cards are plastic cards that are used as method of payment.

**Banks Pre-Paid Cards:** For this service, a bank account is there with wallet or a pre-paid card and a smart phone to generate the MPIIN.

**Point of Sale:** A handheld device with the biometric reader along with a merchant bank account and internet connectivity. POS machines facilitate acceptance of payment from customers by swiping of their debit/credit/prepaid cards on POS terminals.

**Number of POS terminals in India has increased from 5 Lakh in year 2010 to 14.62 Lakh in year 2016. (Source: [www.indianexpress.com](http://www.indianexpress.com))**

**Growth of POS Terminals in India**

(Bank wise)	Number of POS terminals( in lakh)
State Bank of India	3.29
HDFC	2.88
Axis Bank	2.7
ICICI	2.02

**Mobile Banking:** A bank account is required along with a mobile phone application of the bank and internet connectivity to take benefit of this digital service. Mobile banking concept is gaining its momentum over the years.

**Conclusions of the study.**

The study concluded that The ONLINE BANKING SYSTEM plays an important role in the development of cashless economy of India; further data revealed that various securities adopted by on inline banking system in cashless economy of india. The study also focused on Indian economy is primarily to be driven by the use of cash and less than 5% of all payments happen electronically. This is largely due to the lack of access to the formal banking system for a large part of the population and as well as cash being the only means available for many. Large and small transactions continue to be carried out via cash. Even those who can use electronic payments, use cash. Indians traditionally prefer to spend and save in cash and a vast majority of the more-than 1.2 billion populations doesn't even have a bank account. Indian economy is primarily driven by the informal sector and it relies heavily on cash based transactions.

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**Chapter: 16**  
**A Study of Numerous Investment Avenues in India**

**Aarti Krishna kale**  
**Dr. Vani Nikhil Laturkar**  
**Dr. Amarpreet Kour Randhawa**

***Abstract***

We Commonly hear on Television that investment is a good habit of life and securing a life with investment planning is the utmost important part of life said by various cricketers and famous personalities of our country. The investment concept relates to “Sahi hai” or “Risky hai.” Before deciding to invest hard-earned money, investors must understand the process of selecting an avenue as per their requirements. Investment planning is all about market risk. This paper highlights the various investment avenues in India that can help to understand the different aspects of investment and its returns. Moreover, people generally have a myth that investment planning is all about investing in mutual funds, which is not valid. This paper helps to bring out the different investment channels available for investors.

**Introduction**

Money is a significant part of life in the modern era. One needs to put money into investments to solve problems in the future. Every human being must engage in the critical action of investing hard-earned money. Investors can put their assets in a variety of investment vehicles. Each of these investing options comes with a different level of risk and potential profits. Investors anticipate higher rewards with comparatively fewer risks. Financial consultants and advisors make various recommendations to investors in this area. Every investor has a challenging problem when creating a suitable portfolio. Financial instruments and other assets are both included in the investment options. The investor's demands and requirements determine whether they invest in any of the options. Individual and corporate needs are diverse. Prior to making an investment, the investor must evaluate the various investment options in terms of risk, return, term, convenience, liquidity, etc. All are distinguished based on their unique characteristics, such as risk, return, period, etc.



Investments are advantageous to the economy and society. It is a byproduct of advancing economic conditions and the development of contemporary capitalism. Aggregate investment approved during the present period plays a significant role in determining aggregate demand and, consequently, the level of employment for the economy as a whole. Long-term economic productivity and, eventually, a rise in the standard of living are determined by current investment. Investing can contribute to greater overall economic growth and prosperity by boosting individual wealth. The act of investing contributes to the development of financial markets where businesses can raise funds. Also, this results in increased affluence and economic progress. Further advantages to society are also provided by particular investment kinds.

### **What is Investment?**

Investments are goods or assets bought to produce income or appreciation. The underlying premise here is that assets appreciate and gain value over time.

Investments can also refer to spending money or time on things that can improve your own or others' life. For example, to maximize returns, buying securities, real estate, and other valuable assets is part of the definition of investing in finance.

A person who buys a product as an investment does so to make money with it rather than using it for immediate consumption. The wealth accumulated can be used for several things, including filling income gaps, saving for retirement, repaying loans, covering educational costs, or purchasing other assets.

You can earn money from investments in one of two ways. The first is that you might make money when you sell an asset that can be sold. Alternatively, you might invest in an income-generating strategy and generate money by building up gains.

There is danger involved in investing constantly. You run the danger of not getting a return on your investment or possibly losing all of your money. Government securities, for instance, have little risk. When buying stocks, beginning a new business, or growing an existing one, there is a substantial risk involved.

### **Why to Invest?**

Investing is primarily capital preservation. In some cases, investments can protect your hard-earned money from running out

over time. Savings accounts, fixed deposits, and government bonds are reliable ways to protect your money. It is possible to preserve capital even if the return on invested capital is low.

Investing money also aims to build a large corpus over time. People secure their financial future by investing in long-term capital appreciation. Real estate, commodities, mutual funds, and stocks are the best investments for growth. These options involve high risk, but the returns are also high.

Investments can also provide a stable secondary source of income. An example of such an investment is investing in fixed deposits that pay regular interest or shares of companies that pay dividends on a regular basis.

Suitable investments can help you achieve your short and long-term financial goals without too much effort and stress. Many investment options offer, for example, a short lock-in period and high liquidity. Investing in these instruments is a great way to save money for home improvement projects or build emergency funds.

Investors have other compelling reasons to invest besides increasing or preserving capital. Tax incentives are one reason for this motivation. Tax benefits can be claimed on investments like Public Funds (PPF) and Equity Linked Savings Schemes (ELSS). This reduces your taxable income, which reduces your tax liability.

Retirement funds are essential because you may only work for a while. With the right investment choices, you can grow your money after retirement.

Investors offer the necessary funds for new projects. For example, investments can be attracted by investing in new cutting-edge products or services or by participating in a company or firm that introduces them to the glamorous side of life.

### **Review of Literature**

Weagley and Gannon (1991) divided household savings and investments into four categories. These were savings, housing investments (savings invested in the direct purchase of a ready-made home or in the design and construction of a new house) financial instruments such as bonds, notes, shares and preferred shares, pension and retirement plans. They examined the relationship between income levels and wealth and investment opportunities in, people. They found that wealth and income level were the most

important influencing factors in deciding on an investment opportunity. Equity investments were chosen by, wealthier and higher income investors, and low-income groups chose non-risky (non-equity) investments.

Murugan (2012), "Attitude of investors towards investment opportunity in Nellore district" The study examines the majority of investors who are relatively unaware of corporate investment opportunities such as shares and preference shares, mutual funds, corporate bonds and deposits. According to the survey, respondents are very aware of traditional investment options such as real estate, bullion, bank deposits, life insurance schemes and small savings schemes. In addition, financially independent women participate very little in investment decisions.

### **Objectives**

- To understand the various types of investment avenues in India.
- To study different factors affecting investment decisions.
- To analyse the best investment avenue for individual investment planning.

### **Research Methodology**

This study is mainly based on secondary resources of information the main resources of information are as journals (international/national) newspapers, Ph. D thesis, research articles and website etc.

### **Types of investment Avenues:**

- **Small Saving Schemes** Investment Avenues are managed and regulated by Post Office Savings Bank under the Ministry of Finance, Government of India (GOI). All these schemes are safe investments as they have guaranteed returns backed by the central government and can be transferred from post offices to another in any part of India. Most of them have tax benefits, name option, partial payout, early foreclosure and loan settlement; and open an account at a post office or branch of selected commercial banks.
- **Post office saving bank account** This is a regular savings account available at any post office with no fixed maturity. A fixed interest of % is paid quarterly on the minimum balance of, Rate of interest Rs. 10,000/- per annum is tax free. Any person who is a joint account hold or guardian of a minor child can

open this account with a minimum initial deposit of Rs 50, without cheque book and ATM card and Rs 500/- per cheque book or ATM card option.

- **Public Provident Fund Account (PPF)** The Public Provident Fund (PPF) is a savings and tax saving vehicle in India, [1] launched in 1968 by the National Provident Institute of the Ministry of Finance. The main objective of the scheme is to get small savings by providing reasonable money. return with income tax credit. The system is fully guaranteed by the state. PPF account balance cannot be attached under any State Savings Act (1873). However, the IRS and other government agencies can seize the account to collect taxes. The 2019 public funds system established by the government on December 12, 2019 led to the abolition of the previous 1968 public funds system.
- **National Saving Certificate** Deposit with a minimum amount of Rs.100, no maximum limit for 5 years' withdrawal (8% interest per annum from 01.01.2016) It is mainly for income tax purposes tax reduction under 80C and can be opened by any Indian resident or minor. The depositor can choose a physical certificate or passport book, and account can be transferred from one post office to another. The special feature of this scheme is that this can be transferred from person to person only once in a lifetime of 5 years. Prior to December 20, 2015, NSC was available for 10 years. NSC can be used as collateral to avail loan facilities.
- **Kisan Vikas Patra** India Post introduced Kisan Vikas Patra in 1988. It is a savings certificate scheme launched to promote long-term financial discipline. The Indian government shut down the system in 2011 after a government commission suggested that the system could be misused for money laundering purposes. Kisan Vikas Patra (KVP) was later relaunched in 201. As per the 201 amendment to Kisan Vikas Patra, the scheme offers a tenure of 118 months with a minimum investment of Rs. 1000.
- **Sukanya Samriddhi Yojana** Sukanya Samriddhi Yojana is a small deposit scheme for girls launched as part of the Beti Bachao Beti Padhao campaign, which would raise an attractive

interest rate and provide income tax benefits. Sukanya Samriddhi accounts can be opened anytime from the girl's birth to her 10th birthday. The minimum deposit is Rs.250. A maximum of Rs 1.5 lakh can be deposited in one financial year. The account can be opened at any commercial bank post office or authorized branch. The system guarantees the girl child a fair share of the family's assets and savings, whereas male children usually discriminate against her. To encourage parents to open an account in the girl's name and put the maximum savings in her charity deposit within the prescribed limits, a higher interest rate is set for the deposits yearly with an income tax discount. The account is used for 21 years from the time the account is opened, or the girl gets married after 18 years. Fifty percent of the partial payment would be allowed after the girl turns 18 to meet the cost requirement of the matriculation exam. To prevent the early marriage of girls, the condition that the account cannot be withdrawn before the age of 18 has been maintained.

- **Bonds** A government bond is a debt instrument issued by the central and state governments of India. Such bonds are issued when the issuer (central or state government) faces a liquidity crisis and needs funds for infrastructure development. A government bond in India is essentially a contract between an issuer and an investor where the issuer guarantees interest income on the face value of the bonds held by the investors and repayment of principal on a specified date. Government Bonds India belong to the broad category of government securities (G-Sec) and are mostly long-term investment instruments issued for a period of 5 to 10 years. It can be issued by both the central and state governments of India. Government bonds issued by state governments are also called State Development Bonds (SDLs).
- **National Pension Scheme (NPS)** All government employees are covered by the National Pension System (NPS), a government-sponsored pension program established in 2004. In 2009, the program became accessible to all citizens. It is a long-term, voluntary retirement plan. The Central Government and the Pension Fund Regulatory and Development Authority (PFRDA) oversee its regulation.

- **Corporate Securities / Mutual Funds Units** Investors have the choice to take part and contribute to the money that the corporate sector needs. Businesses may raise money by selling equity shares, preference shares, debentures, or public deposits, among other options. But, the regulating authority, Securities and Exchange Board of India, must approve and sanction each offering they propose (SEBI). The procedures, rules, and guidelines for raising capital are provided by SEBI. For all matters involving the raising of capital in whatever form, all Companies are required to follow the rules and regulations, submit the proper requests to obtain clearance, and then file a report to the SEBI.
- **Sovereign Gold Bonds** Under the Gold Monetization Plan, the Government of India created sovereign gold bonds (SGB) in 2015. In October 2021 and March 2022, gold bonds are issued monthly, and the Reserve Bank of India, in cooperation with the Government of India, offers the issues under this plan in tranches. Denominated in multiples of a gram of gold, with a gram serving as the minimum unit, Sovereign Gold Bonds will be issued. The nominal value of the gold bonds will earn interest at a rate of 2.50% yearly, which is due every other year. The bond will have an 8-year term, with exit options available on the interest payment dates in the fifth, sixth, and seventh years.
- **Unit-linked Insurance Plans (ULIPs)** An insurance package known as a ULIP combines investing and insurance advantages into a single plan. Unit Linked Insurance Plans, or ULIPs, offer life insurance, which is a significant advantage over conventional wealth generation methods. It not only increases the value of your money but also safeguards the future of your loved ones from unforeseen events. The investment component of ULIPs enables investors to place assets in the equities, debt, and balanced asset classes and funds of their choice. After the ULIP expires, the policyholder receives the maturity value and can use the funds for a variety of financial objectives. Also, in the terrible event that the policyholder passes away during the term, the life insurance component of a ULIP provides a death benefit.

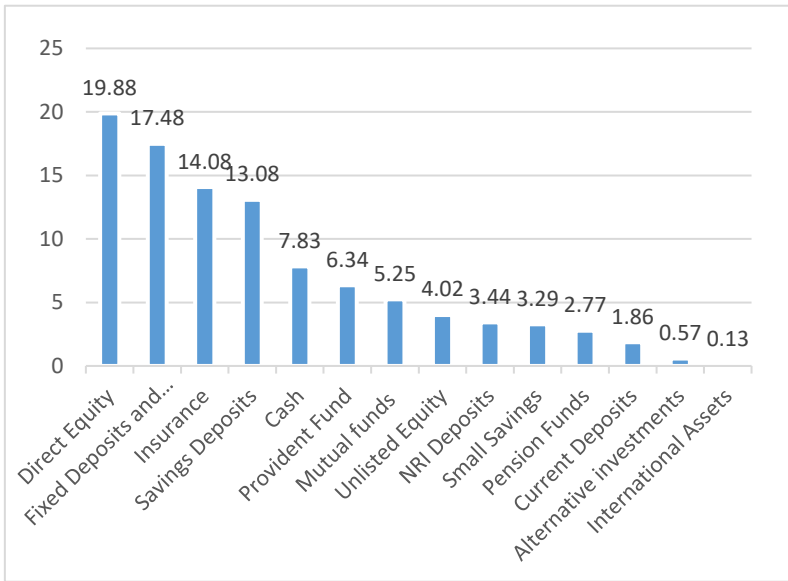
- **Gold Exchange Traded Fund (ETF)** An exchange-traded fund (ETF) that tracks the domestic physical gold price is known as a gold ETF. These are passive investment tools that invest in gold bullion and are based on gold prices. In a nutshell, Gold ETFs are securities that reflect physical gold, either in the form of paper or in a dematerialized form. One gram of gold is equal to one unit of the Gold ETF, which is backed by extremely pure actual gold. Gold ETFs combine the simplicity of gold investing with the flexibility of stock investing. Like any other stock of a company, gold ETFs are listed and traded on the National Stock Exchange of India (NSE) and Bombay Stock Exchange Ltd. (BSE).
- **REIT's** The ability to invest in large-scale, income-producing real estate is provided by real estate investment trusts (REITs). A REIT is a business that owns and typically manages income-producing real estate or related assets. Office buildings, shopping centers, residences, hotels, resorts, self-storage facilities, warehouses, and mortgages or loans may be among them. A REIT does not build real estate properties to resell them like other real estate firms do. A REIT, on the other hand, acquires and develops properties primarily for the purpose of operating them as part of its own investment portfolio. In addition to being publicly traded on a stock exchange, many REITs are registered with the SEC. The term "publicly traded REITs" refers to these. Others might be SEC-registered, but they are not traded publicly. These are referred to as non-traded REITs, or non-exchange traded REITs. One of the most crucial differences between the various types of REITs is this one. Understand the advantages and risks to you before investing in a REIT by finding out whether it is publicly traded or not.

There are two main sources of wealth – financial assets and physical assets.

**Financial assets** include direct equity, fixed income and bonds, insurance, savings bank deposits, cash, provident fund, mutual funds, unlisted equity, small savings, pension funds, current deposits, alternative investments, and international assets.

**Physical assets** include gold, real estate, diamond, silver, platinum, other gems, and jewellery.

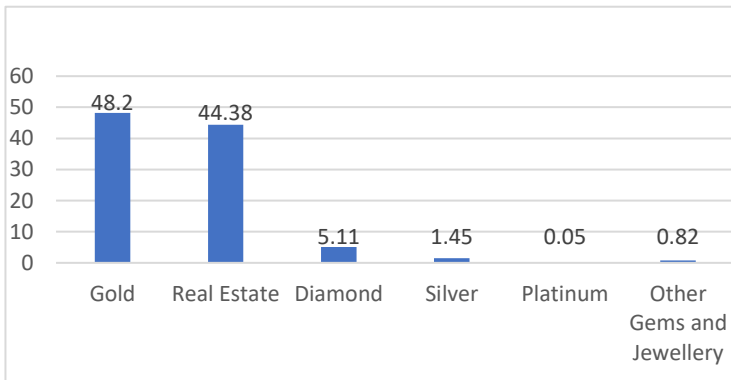
### *Classification of Individual Wealth in India based on Financial Assets*



Source: Karvy Wealth Report 2019

As per Karvy wealth report 2019, the proportion of direct equity covered 19.88, Savings deposits with 13.08, mutual funds 5.25, pension funds 2.77, current deposits 1.86, international assets at 0.13 at the least proportion among all the financial assets.

### *Classification of Individual Wealth in India based on Physical Assets*





*Source: Karvy Wealth Report 2019*

Based on Karvy wealth report 2019, classification of individual wealth in India based on physical assets covers 48.2% in Gold, 44.38% of real estate, 5.11% of diamond, 0.05% of platinum, 0.82% in other gems and jewellery.

### **Conclusion**

Retail investors accounted for the bulk of mutual fund accounts in India as of December 2022. They accounted for 128,576,242 or 91.1 per cent of the total 141,119,590 mutual fund accounts, according to data released by the Association of Mutual Funds of India (Amfi).

The Assets Under Management (AUM) of the mutual fund industry rose by 5.7 per cent or Rs 2.2 lakh crore to a total Rs 39.88 lakh crore in 2022, data from the Association of Mutual Fund Industry (AMFI).

As per the sources and reports it is clear that the investors are largely interested to invest in Mutual funds as ratio of Mutual funds investment is increased comparing with FY2019 and FY2022.

There is a significant rise from 2020 to 2021 when 81 lakh accounts (or folios in mutual fund parlance) were opened, data with the Association of Mutual Funds in India (Amfi) showed.

The Indian stock market has experienced significant growth in the past few decades, with the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) being the primary stock exchanges in the country. According to a report by the Securities and Exchange Board of India (SEBI), the number of demat accounts in India has increased from 2.3 crores in March 2010 to 5.3 crores in March 2021, indicating a rise in the number of investors participating in the stock market.

The number of mutual fund accounts grew by 17 per cent as of December 2022 on a yearly basis. Equity was the top-draw for retail investors, while the high net-worth individual category predominantly concentrated on debt, according to the Amfi data

**According to a survey, 78% of Indians will not invest in 2023 due to recession fears and market volatility**

2023 has begun on a neryv note after the rollercoaster year of 2022 that saw rising interest rates, global market volatility, geopolitical tensions, inflationary concerns, and even a cost of living

crisis. According to the survey, only 16% of Indians are planning to invest their money in 2023. According to the India Consumer Sentiment Index, 78% of people say they won't invest in 2023.

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**Chapter: 17**  
**A Study on Impact of Digital Marketing on Sale of  
Products and Services**

**Dr. Suresh Sahebrao Kashide**

**Introduction**

Digital marketing is often referred to as 'online marketing', 'internet marketing' or 'web marketing'. The term digital marketing has grown in popularity over time, particularly in certain countries. Digital marketing is very helpful for promoting products and services. This makes the customer to avail all the product and services in finger tips. Through electronic devices the scope of digital marketing has been widely improved. Digital marketing is an umbrella term for the marketing of products or services using digital technologies, mainly on the Internet, but also including mobile phones, display advertising, and any other digital medium. The way in which digital marketing has developed since the 1990s and 2000s has changed the way brands and businesses utilize technology and digital marketing for their marketing. Digital marketing campaigns are becoming more prevalent as well as efficient, as digital platforms are increasingly incorporated into marketing plans and everyday life, and as people use digital devices instead of going to physical shops.

**Types of digital marketing**

1. **Search engine optimization (SEO):** This involves optimizing websites to rank higher on search engines, thereby increasing organic (non-paid) traffic.
2. **Pay-per-click (PPC):** A model where advertisers pay a fee each time their ad is clicked, primarily seen in search engine advertising.
3. **Content marketing:** Creating and distributing valuable content to attract and engage a target audience.
4. **Social media marketing:** Using social platforms like Facebook and Instagram to promote products or services.
5. **Email marketing:** Sending targeted messages to a group of people via email.
6. **Affiliate marketing:** Earning a commission by promoting other people's products or services.
7. **Online PR:** Managing a brand's online presence and building relationships with

## Skills of Digital Marketing

- **Communication skills:** Communication skills are paramount in digital marketing because they facilitate clear conveyance of ideas, collaboration with diverse teams, and effective engagement with audiences. Whether it's presenting campaign results to stakeholders, coordinating with designers and developers, or crafting messages that resonate with consumers, effective communication ensures alignment of goals, smooth execution of strategies, and the building of trust with both internal teams and external audiences.
- **An analytical mindset:** An analytical mindset is crucial in digital marketing because it enables professionals to decipher vast amounts of data, discern patterns, and derive actionable insights. By understanding user behavior, campaign performance, and other key metrics, marketers can make informed decisions, optimize strategies for better results, and demonstrate a clear return on investment to stakeholders.
- **Creativity:** This skill allows digital marketers to craft unique, compelling campaigns that stand out in a saturated online landscape. By thinking outside the box and developing innovative content or strategies, marketers can captivate their target audience, foster engagement, and differentiate their brand from competitors.
- **Technical proficiency:** Digital marketers rely on various tools, platforms, and technologies — such as Google Analytics, AdWords, and content management systems (CMSs) — to execute and measure campaigns effectively. A strong grasp of these technical aspects ensures that marketers can optimize websites for search, analyze data accurately, manage paid ad campaigns, and troubleshoot issues, leading to more efficient and successful marketing efforts.
- **SEO and SEM skills:** These skills are essential for digital marketing because they directly influence a brand's visibility on search engines. Mastery in SEO ensures that a website ranks organically for relevant keywords, driving free and targeted traffic. Simultaneously, expertise in SEM allows marketers to create effective paid ad campaigns, ensuring prominent placement in search results and immediate visibility. Together,

they form the backbone of a brand's online discoverability and reach.

- **Adaptability:** The digital landscape is in constant flux, with evolving algorithms, emerging platforms, and shifting consumer behaviors. Marketers who can quickly adapt to these changes are better positioned to seize new opportunities, mitigate challenges, and ensure their strategies remain effective and relevant in an ever-changing environment.

## **Objectives**

1. The main purpose of this paper is to recognize the usefulness of digital marketing in the competitive market.
2. To study the impact of digital marketing on consumers purchase and sales of goods and services.
3. To know the usage and benefits of electronic devices for digital marketing.

## **Research Methodology:**

1. **Primary Data:** The research is done through observation and collection of data through oral interview.
2. **Secondary Data:** Secondary data is collected from journals, books and magazines to develop the theory

## **Advantages of Digital Marketing**

### **1. Improves Brand Loyalty**

Businesses can leverage digital marketing to attract customers, forge a stable, long-term relationship, and retain them, thereby building brand loyalty – one of the best uses of digital marketing. Your recurring customers are your brand ambassadors, and they also help you to bring more customers. Nurturing and maintaining relationships with customers is achieved by providing them value, solving their pain points swiftly, and delivering exemplary customer service. Digital marketing methods help you do all of this.

### **2. Get Instant Feedback**

Customers are able to give you instant feedback on your products and services; this motivates you to do better and helps you to improve. Customer can leave feedback on your website through chat, forms, or email, and on your social media pages as well, without having to wait for anyone to answer the phone. This is a major benefit of digital marketing for businesses as it allows them to

make changes and improvements swiftly before the problem becomes unmanageable.

### **3. Measure and Track Results**

Thanks to analytics, you can actually measure your results and track the performance of your campaigns. This allows you to make the necessary changes to your strategies to get better results. This feature is one of the biggest benefits of digital marketing.

### **4. Increase Engagement with Consumers**

Digital marketing channels allow businesses and consumers to interact with each other and engage in meaningful conversations about the company's products, services, and values. It makes the customer feel valued and helps build trust, and eventually turns them into a loyal customer.

### **5. Improved Market Analysis**

Information from digital media helps businesses to study the market, the competition, customer behavior, trends, and so on. This facilitates strategy formulation and helps in promoting your products and your brand effectively.

## **Disadvantages of Digital Marketing**

### **1. High Competition**

Competition is very intense in the digital marketing sphere as it is in everything today. You have to put in serious effort to ensure that your digital campaigns are successful and bearing results. Without the expertise of a digital marketing company like WAC, you may find it difficult to stand out in the crowd.

### **2. Negative Feedback**

Though by itself it's not necessarily a disadvantage, some customers can be very rude and leave nasty comments. Such feedback can impact other customers' decisions and damage your reputation; you will have to deal with it carefully.

### **3. Tech-Dependent**

It goes without saying that digital marketing is dependent on technology. There are many different tools that need to be used and this is one of the disadvantages of online marketing. Software can develop chinks, and there can be problems with connectivity, which can lead to broken links and pages that don't load, which may cause customers to go to another site.

#### **4. Maintenance Cost Can Go High**

You may need to invest in many different software tools, or train your staff and ensure they are competent to handle them as well as run the campaigns. This can push up your expenses by a significant amount.

#### **5. Rapid Changes**

Search engine algorithms, consumer preferences, regulations, and industry best practices, all are prone to rapid changes. This can create chaos and lead to a lot of re-work frequently. It can be difficult to stay abreast of these changes and adapt in time.

#### **Suggestions**

1. It helps to Improve technical advancement in promotion of digital marketing.
2. It provides the Collection and implementing the feedback provided by the consumer in the right way.
3. It provides a transparent and good service to the consumer before and after purchase.
4. It helps in creating awareness among the people about digital marketing.
5. Complete description need to provide about the product to the online shoppers.

#### **Conclusion**

Digital marketing is the tool used for the growth of companies & business in marketing. It is a tool which makes marketing of the products and services of company for the business. Digital marketing has turn out to be crucial part of approach of many companies. At the present time, still for tiny business proprietor at hand have an extremely inexpensive and competent method by using digital marketing to market their products or services in the society. It has no restrictions. Company can utilize any devices such as tablets, smart phones, TV, laptops, media, social media, email and lot other to support company and its products and services. Digital marketing may achieve something more if it considers consumer desires as a peak priority.

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**Chapter: 18**  
**Effects and Current Trends of E-Commerce and Digital Payments**

**Dr. Saddam R. Sayyad**

**Abstract: -**

The contemporary corporate landscape demands a dynamic and inventive approach to remain relevant. Asia and worldwide are seeing a boom in e-commerce business growth. Their ability to predict market trends, time, and strategy, among other things, will determine how successful it is. This paper discusses the current state of e-business, its problems, and its difficulties in brief. E-commerce encompasses not just the buying and selling of goods through the internet, but also the development, marketing, selling, delivery, servicing, and post-purchase payment of goods and services. E-commerce demonstrates the economy's remarkable expansion.

**Introduction: -**

One of the major developments that has rocked the Indian sector is e-commerce. It is forcing a complete economic transformation that has enormous potential and is essentially changing how industries operate. E-commerce is the term for any internet transaction. Both sellers and purchasers stand to gain from it. Online shopping is becoming more and more appealing to customers worldwide due to the wide range of products and services that are available. Since 1991, India has formally implemented economic reforms in response to its economy opening up with the goal of integrating with the global economy. The business environment is changing quickly as a result of digital innovation and the information and communication technology (ICT) era. Cash-based commercial transactions are gradually giving way to electronic-based ones. The e-payment system was established as a better option to cash and trade barter, not to replace cash.

**What is E-commerce?**

Electronic commerce, sometimes referred to as E-commerce or E-commerce, refers to a variety of transactions that are a part of business operations. It involves both group and individual tasks, such as the processing and sending of digital information like text, images, audio, and video. With the use of the Internet, e-commerce has created a new environment for processing and conducting

business. Here, customers may get immediate information about the things they wish to purchase, and the platform is ready for product ads. It also allows for financial transaction settlement, raw material orders, and discussions. Combining data management, security measures, and communication services, electronic commerce gives businesses a forum to exchange information about the sale of goods and services.

### **Meaning and Definition of E-Commerce**

“All commercial operations and transactions carried out over the Internet and other electronic technologies are referred to as "e-commerce," or electronic commerce.”

"E-Commerce is an internet-based company environment in which knowledge moves electronic via Internet related to buying, selling, transportation of goods and Services".

### **Review of Literature**

**Vandana Gidwani** (2017), the paper deals with electronic banking and operational environment towards cash deposit to cash withdrawals all transactions completely alter the way of electronic different means. The researcher has focused on electronic banking pros and cons along with acceptance technology, internet availability and banking services.

**Premkumar B & Sabrinathan Chandrasekar** (2016), the study has explored changing e-commerce technological tools. It is found that, the way of doing business changed and became customer centric approach in terms of product design, pricing and content etc. The researcher has also highlighted on social commerce specially online or mobile transactions like B2B and B2C categories of business models and online payment system.

### **Objectives of the study**

1. To research different e-commerce models.
2. To learn about the order management system used in e-commerce.
3. To study another e-payment systems.
4. To Research the Benefits and Drawbacks of Online Shopping.

### **Research Methodology**

The present study is conceptual purely based on secondary data which is collected from books, National journals, international

journals, published articles, reports of the Government and other websites.

### **E-Commerce models:**

Major types of e-commerce business are as follows.

- 1) **B2B** - "Business-to-Business." Instead of a business and individual customer, it refers to transactions, dealings, or interactions that take place between two firms. In business-to-business (B2B) transactions, one company sells goods or services to another company. Purchasing, manufacturing, distribution, supply chain management, wholesale trading, and other related activities are all included in this category of business. Contracts, long-term relationships, and negotiations are common elements of business-to-business transactions.
- 2) **B2C** - "Business-to-Consumer." It describes exchanges, meetings, or business dealings that take place face-to-face between a company and certain customers. Businesses sell goods or services directly to customers in business-to-consumer (B2C) interactions. Retail establishments, internet retailers, service providers, and other companies that provide direct customer services are frequently involved in this kind of business. B2C interactions frequently center on marketing tactics meant to draw in new clients and keep existing ones while also offering easy and fulfilling shopping experiences. Retail stores, eateries, e-commerce sites, and entertainment venues are a few examples of B2C enterprises.
- 3) **C2C**- "Consumer-to-Consumer." It refers to transactions, interactions, or commerce conducted directly between individual consumers, typically facilitated by online platforms or marketplaces. In C2C transactions, individuals sell products or services to other individuals, without the involvement of businesses as intermediaries. These transactions often occur through online auction sites, classified advertisements, peer-to-peer marketplaces, or social media platforms. C2C commerce allows individuals to buy and sell items, exchange services, or engage in other transactions with one another. Examples of C2C platforms include eBay, Craigslist, Airbnb (for short-term rentals), and Poshmark (for secondhand clothing).

- 4) **C2B-** Consumer-to-Business." It refers to a business model where individual consumers create value and sell products or services to businesses. In traditional business models, businesses sell products or services to consumers. However, in C2B models, the roles are reversed, with consumers offering their products, services, or expertise to businesses.
- 5) **B2Ad-** "Business-to-Advertisement" model, a company primarily focuses on providing products or services related to advertising, marketing, or promotion to other businesses. This could involve various aspects of the advertising industry, such as creating ad campaigns, developing marketing materials, managing social media presence, offering analytics and data services, or providing advertising space.
- 6) **C2Ad-** "Consumer-to-Advertisement" model, the focus would be on consumers actively participating in or contributing to advertising campaigns or promotional activities. This could involve consumers creating content, sharing advertisements, providing feedback, or engaging with brands in ways that contribute to advertising efforts.

- How does E-commerce order management work?

The fastest possible delivery of a product to a customer is the aim of an order management system. From the time an item is added to a customer's cart until it is delivered to their door, it oversees the return process for each item in the purchase.

- 1) **Findings:** The order management procedure begins even prior to the client submitting a sales order. When a consumer adds an item to their online cart, the order management system may keep track of it and automatically modify inventory. In addition, the system has the ability to notify you when an item has been abandoned or added to your cart.
- 2) **Order placement:** In order to process order information and validate credit card payments, the order management system interacts with your back-office systems when a customer decides to make a purchase. Following approval, the order can be sent to be fulfilled.
- 3) **Order fulfilment:** An Order Management System (OMS) will choose the warehouse closest to the order destination based on the order details. Then, using specified variables, it will

automatically determine the fastest carriers and the cost of delivery. Along with printing delivery labels and packing slips, it might also update your warehouse management system on inventory changes.

- 4) **Shipping:** The order management system can notify the customer that their purchase has shipped once the warehouse selects, packs, and ships the goods. Additionally, based on their delivery address and order details, it can let them know when to anticipate it. Whether the package is going to the customer's house or a store, you and the consumer can follow its journey together.
- 5) **Returns and refunds:** Even in the event that a disgruntled consumer returns an item, mending goodwill can be greatly aided by an effective return and refund procedure. A refund request can be handled instantly by an order management system, which can also interact with your back-office systems to complete the refund process. To guarantee that data is correct and updated as the procedure progresses, it can also establish a connection with your returns provider.

### **Types Of Electronic Payment:**

Electronic payment refers to a way that anyone can manage an e-business environment regardless of time or location by using the internet to make online payments for goods and services without physically transferring cash or checks.

- 1) **Debit Card:** In India, debit cards rank second in terms of e-commerce payment methods. Debit cards are preferred by customers who wish to make purchases online while staying within their means. Unlike credit cards, which bill the user for the amounts they spend and require payment at the end of the billing month, debit cards only allow users to pay for purchases using money that is already in their bank accounts.
- 2) **Credit Card:** Credit cards are the method of payment that online shoppers most frequently use. It's easy to use; all the buyer needs to do is fill in the relevant fields on the seller's website with their credit card number and expiration date. Increased security measures, like the use of a card verification number (CVN) for online credit card payments, have been implemented to strengthen the security system. By comparing

the CVN number with the cardholder's details, the CVN system assists in the detection of fraud.

- 3) **Smart Card:** A microprocessor-equipped plastic card that stores a customer's personal data and may be loaded with money to conduct online purchases and make instant bill payments. Reloading from a bank account is necessary since the amount of money loaded onto the smart card decreases based on the customer's usage.
- 4) **Electronic Wallet:** - An e-wallet is a type of prepaid account that gives users the safe storage of several credit card numbers, debit card numbers, and bank account numbers. This removes the have to repeatedly enter account details when making payments. The customer can make payments more quickly after registering and creating an E-Wallet profile.
- 5) **Online banking:** - This is yet another widely used method for paying for online purchases. It is an easy method of using the customer's bank to pay for internet transactions. It pays with money that is already in the customer's bank account, much like a debit card. In order to utilize online banking, a user must register with their bank; however, they are not required to have a card for payment reasons. The customer only needs to enter their pin and net banking ID to complete the purchase.
- 6) **Paying by mobile:** - Using a mobile device to make an online payment is one of the newest methods. The consumer only needs to text a payment request to his or her service provider in place of using cash or a credit card; the purchase will be charged to the customer's credit card or mobile account. The consumer only needs to download software from the website of his or her service provider and link the credit card or mobile billing information to the programme in order to set up the mobile payment system.
- 7) **Pay with Amazon:** - Using Amazon Pay to pay for online purchases provides an additional easy, safe, and rapid option. To log in and make payments at popular retailer websites and apps, use the details that are already saved in your Amazon account login credentials. When you shop on thousands of websites and applications, your payment information is securely held by Amazon. Amazon.

## **Advantages of e-commerce**

- 1) **Global Reach:** E-commerce enables businesses to reach customers beyond geographical boundaries, tapping into a global market without the need for physical stores.
- 2) **Lower Costs:** E-commerce eliminates the need for physical storefronts, reducing overhead costs associated with rent, utilities, and staffing. Additionally, digital marketing often proves more cost-effective than traditional advertising methods.

## **Non-Technical –Inconveniences**

- 1) **Beginning Cost:** Building an internal e-commerce website comes with a very high beginning cost. The cost of employing competent personnel to update and manage an e-commerce website may be significant. Businesses can also choose to outsource their e-commerce operations to other e-commerce businesses. But figuring exactly where and how to outsource is a challenging undertaking.
- 2) **Privacy and Security:** Security and privacy are online firms' biggest concerns. Due to security concerns like credit card data theft, customers are reluctant to divulge credit card numbers online. Customers will refrain from making any online purchases if they lack faith in the online retailer.
- 3) **Lack of Trust and User Resistance:** Since business transactions and dealings are based on trust, in-person interactions and paper records are crucial. Therefore, it is challenging for any customer to go from physical to online retailers.
- 4) **Absence of Feel and Touch:** A product may be something that customers want to handle and feel before buying online. Online retailers do not allow customers to touch and feel products like clothing, shoes, and other accessories.
- 5) **Issues with Customer Relations:** For an organization to operate an internet business for a long time, it needs devoted clients. In today's competitive market, online businesses cannot survive without devoted clients.
- 6) **Corporate Vulnerability:** Information about products, prices, catalogues, and other details is widely available to online businesses. Websites are more susceptible to competition access thanks to this information. Web farming is the practice of gathering business intelligence from rival websites.

## **Conclusion**

The field of e-commerce is constantly evolving. As communication and technology have advanced, e-commerce has become more and more popular both in India and around the world. It has made conducting business online simple and available to those who are at home. E-commerce significantly affects prices, accessibility to goods and services, and business productivity. It is also crucial for a country's economic development and progress. However, due to limited access, computer illiteracy, and infrastructure issues, Indian e-commerce still confronts numerous challenges in web marketing. The majority of Indians are poorly informed about computers and the internet because they reside in rural areas. Because some consumers, especially in urban regions, lack the necessary resources and understanding of online payments and transactions, the practice of buying and selling things online is restricted to those who possess computer and internet literacy. But thanks to government programmes like Digital India, the last ten years have seen a significant change in this situation, with India becoming into a major e-commerce hub.

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## Chapter: 19

# A Study on Customers Perception on Digital Banking and Its Impact on Banking Activities W. R. T. Upi Banking

Rotte Sai Akash

### Abstract:

In the current context, the service sector constitutes one of the three main sectors in India and plays a crucial role in fostering economic development. Within the service sector, there are three distinct industries: travel, media and entertainment, and information technology. Through collaboration between information technology and the banking sector, customers have gained access to innovative banking services, resulting in the emergence of digital banking. **A Study On Customers Perception On Digital Banking And Its Impact On Banking Activities W.R.T. Upi Banking** was undertaken to assess the available digital banking platforms, understand UPI/BHIM banking operations within banking activities, analyse the factors influencing UPI transactions in rural areas, and gauge rural customer satisfaction levels. This study employed both qualitative and quantitative research methods, with data analysis primarily based on quantitative data collected from a sample of 50 rural customers across various banks. Data collection methods included the collection of primary data from respondents through Google Forms and structured questionnaires, as well as the gathering of secondary data from articles, websites, reference books, and journals. Convenience sampling was employed to select the sample population, and data classification utilized various statistical tools such as tabulations, pie charts, and bar diagrams. The analysis and interpretation of data involved statistical measurements such as percentages and measures of central tendency. Hypotheses were formulated and validated within the study.

**Keywords:** Digital banking, UPI/BHIM banking, information technology, and e-banking.

### Introduction:

In today's global economy, the service sector plays an indispensable role in driving economic development. This sector has expanded its reach across various domains within India, encompassing a wide array of activities. (Machiraju, 2014) Services within this sector span trade, hospitality, transportation, logistics,

communication, real estate, business services, financing, and insurance.

Within the service sector, three key industries stand out: the travel industry, information technology industry, and media and entertainment industry. Notably, the collaboration between the information technology industry and the banking sector has revolutionized the provision of banking services to customers. This collaboration has paved the way for the emergence of digital banking in India, offering innovative and convenient financial solutions.

The banking sector in India serves as the nervous system for circulating money among the populace, facilitating transactions and financial activities essential for economic growth. The integration of the service sector with the banking industry has resulted in remarkable advancements within the banking sector, contributing significantly to the overall growth of the Indian economy. (Avadhani, 2019) This synergy between services and banking has been nothing short of transformative, leading to substantial progress and innovation within the financial landscape of India.

### **Digital Banking:**

Digital Banking is the automation of traditional banking services. Digital banking enables a bank's customers to access banking products and services through an electronic/online platform. It performs banking work around the clock, with 24\*7 availability of access to banking. Digital banking means to digitize all of the banking operations. It is a substitute of the bank's physical presence. With smartphones at affordable prices and internet access in remote areas, the rural population can make the most out of digital banking services. (*UPI: Unified Payments Interface - Instant Mobile Payments / NPCI*, n.d.) By promoting a cashless society, digital banking restricts the circulation of black money as the Government can keep a track of fund movements. In the long run, digital banking is expected to lower the minting demands of a currency. (tavaga, 2021) Digital banking allows a user to set up automatic payments for regular utility bills such as electricity, gas, phone, and credit cards.

Digital banking provides numerous advantages over traditional brick-and-mortar banking, enhancing the convenience,

efficiency, and accessibility of financial transactions. Below are some key benefits: (Machiraju, 2014)

1. Convenience: Users can conveniently access their bank accounts and conduct transactions using their computer, smartphone, or tablet, eliminating the need to visit physical branches during limited banking hours
2. 24/7 Access: Digital banking platforms operate 24/7, allowing users to manage their finances at any time, regardless of regular banking hours, catering to individuals with busy schedules or in different time zones
3. Cost Savings: Digital banking reduces banks' overhead costs related to maintaining physical branches and staffing, resulting in lower fees and higher interest rates on savings accounts compared to traditional banks
4. Efficiency: Transactions like fund transfers, bill payments, check deposits, and account monitoring are swiftly and efficiently executed through digital banking platforms, streamlining processes and reducing paperwork.
5. Accessibility: Digital banking extends financial services to individuals who face challenges visiting physical branches, such as those with mobility issues or residing in remote areas with limited banking access.
6. Enhanced Security: Advanced security measures like encryption, multi-factor authentication, and biometric verification safeguard users' personal and financial data, mitigating risks of fraud and unauthorized access.
7. Real-time Monitoring: Users can monitor account balances, track transactions, and receive real-time alerts for suspicious activities or upcoming payments, empowering them with greater visibility and control over their finances
8. Digital Tools and Features: Digital banking platforms offer various tools and features such as budgeting tools, financial calculators, spending analysis, and personalized recommendations to aid users in managing their finances effectively.
9. Integration with Other Services: Integration with third-party services like payment apps, investment platforms, and

budgeting software enables users to conveniently manage multiple financial aspects from a single interface.

10. Environmental Benefits: Digital banking reduces paper-based transactions and physical branch visits, contributing to lower environmental impact by reducing paper waste and carbon emissions associated with transportation.

National Payments Corporation of India (NPCI) is an umbrella organisation for operating retail payments and settlement systems in India, it is an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, (Kolte & Humbe, 2019) for creating a robust Payment and Settlement Infrastructure in India. (*UPI: Unified Payments Interface - Instant Mobile Payments / NPCI*, n.d.). It has an intention to provide infrastructure to entire banking system in India for physical as well as electronic payment and settlement systems.

Unified Payments Interface (UPI) and Bharat Interface for Money (BHIM) has been termed as the innovative products in the payment system.

Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. (Kolte & Humbe, 2019) It also caters to the "Peer to Peer" collect request which can be scheduled and paid as per requirement and convenience. Each Bank provides its own UPI App for Android, Windows and iOS mobile platform(s). (tavaga, 2021) The advanced cloud computing features provide the youth a flexible and an easy usable platform for resource sharing, information storage and for world-wide interactions. This facility is face lifted by National Payments Corporation of India (NPCI).

### **Review of Literature:**

(**Kolte & Humbe, 2019**): In this study, it is noted that India is currently experiencing a growth rate of 6 to 7%. It is anticipated that the adoption of cashless payments will alleviate the burden of physical currency circulation nationwide. The study suggests that Unified Payments Interface (UPI) will revolutionize transactional methods, making smartphones the primary tool for financial

transactions. Although UPI is in its initial stages, its full integration across all banks will greatly benefit both the banking sector and customers, facilitating seamless money transfers. With the exponential rise in smartphone users and internet accessibility, especially in rural areas, there is substantial potential for UPI adoption among Indian consumers. UPI offers the convenience of transactions without the need for intricate bank details, relying instead on simple identifiers like phone numbers or virtual addresses, ensuring high security. Ultimately, the study concludes that UPI will gradually phase out cash payments, resulting in a more transparent system and catalysing the transition towards a cashless economy.

**(Philip, 2019):** This study aimed to investigate how customers perceive unified payment services compared to traditional ones and to what extent UPI services influence customer satisfaction. The findings indicate that customers hold a favourable view of unified payment interface services. Furthermore, the study reveals a connection between the education level of respondents and their use of UPI services, with educated individuals showing a higher inclination towards utilizing UPI services. Additionally, the increasing number of smartphone users and internet accessibility in certain regions has also contributed to the adoption of UPI services.

**Objectives:**

1. To Assess the range of digital banking platforms offered by banks
2. To Investigate the utilization of UPI/BHIM banking among customers
3. To Examine the factors impacting UPI banking adoption among rural populations.
4. To Understand the levels of satisfaction among rural residents.

**Significance:**

1. This study offers concise insights into digital banking platforms, with a focus on UPI banking adoption among rural communities.
2. It presents data on the challenges encountered by rural populations in utilizing UPI banking services.
3. The study aids customers in accessing information about the availability of UPI banking features and operations.
4. It delves into details concerning UPI/BHIM banking and the activation procedures associated with banking services.

5. Additionally, it assists rural financial institutions in enhancing their services to align with customer expectations.

### **Limitation of the Study:**

In this study there are following limitations:

1. The study's sample size is restricted to 50 rural customers across different banks.
2. The study is confined to rural villages within the Nanded and Nizamabad districts of Maharashtra and Telangana State, respectively.
3. The study exclusively concentrates on digital banking, specifically UPI/BHIM banking services.
4. During data collection from respondents, personal, officially confidential, and irrelevant information unrelated to the study is omitted.
5. Data collection is conducted using Google Forms.

### **Research Methodology:**

#### **Hypothesis Testing:**

A hypothesis is an inference drawn from evidence, serving as the starting point for investigations, shaping research inquiries into predictive statements. It encompasses variables, population, and their interrelations. Typically, hypothesis tests involve the null hypothesis (a) and the alternative hypothesis (b). The following research hypotheses were formulated for examination:

1. There exists no significant effect between the utilization of UPI platforms and various banking activities.
2. There is no significant disparity between the age of respondents and their utilization of UPI banking platforms.

#### **Methods of Collecting Data:**

##### **Primary data:**

Primary data refer to a data which is available from the researcher in his research. It is first hand data. It is collected by the researcher by himself for his study.

In this study primary data is collected by creating Google forms and questions are asked, which was filled by the rural population by clicking the link of the form.

##### **Secondary data:**

Secondary data is a data which are not originally collected by a researcher but rather obtained from published or unpublished books, journals, articles, organisations websites, etc. It is a data were material is available from pre-existing sources of organisations.

In this study Secondary data is collected from various sources like reference books, textbooks, articles, journals and from official sites

### Sampling Methods:

In this study, sample is obtained by using Convenience sampling technique. In this method samples are selected from the population as they are easily available and researcher did not consider selecting a sample that represents the entire population.

In the study the Google form link is sent to the selected group of people who are available to the researcher in rural area.

### Sample Size:

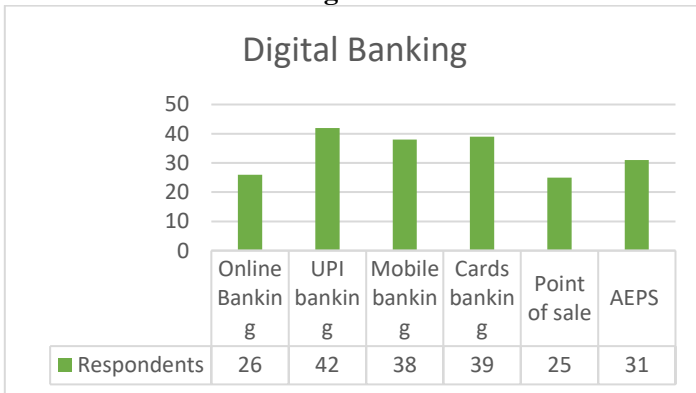
An important decision that has to be taken while selecting the sample and is about the size of the sample. Size of the sample means numbers of sampling units selected from the population for investigation. In this study the sample size is “50” Rural customers of various banks. It is more than “30” respondents and it is considered as large sample.

### Analysis Of Data:

In every study analysis of data is necessary for taking decisions and coming to a conclusion. Analysis of data collected from different sources is an important step. Analysis of data is done by using different statistical tools and mathematical methods. In this study analysis and interpretation is done through Tables, bar charts and Pie charts. The table is used to convert the raw data into a structured form. So, that everyone can easily analyse the data and can draw conclusions. Pie chart is other form of interpretation of the data. It is in chat form. By observing the chart we can interpret the data. Tables and pie charts are time saving techniques to interpret and analyse the study.

#### 1. Types of Digital banking uses

Figure: 1



**Interpretation:** In rural banking activities, there are 26 customers utilizing online banking services, 42 customers employing UPI/BHIM, 38 customers opting for Mobile banking services, 39 customers engaging in card banking, 25 customers utilizing Point of Sale (POS) banking services, and 31 customers utilizing AEPS banking services for tasks such as money transfers, balance inquiries, bill payments, shopping, and more.

**Issues facing in UPI/BHIM banking?**

**Table: 1**

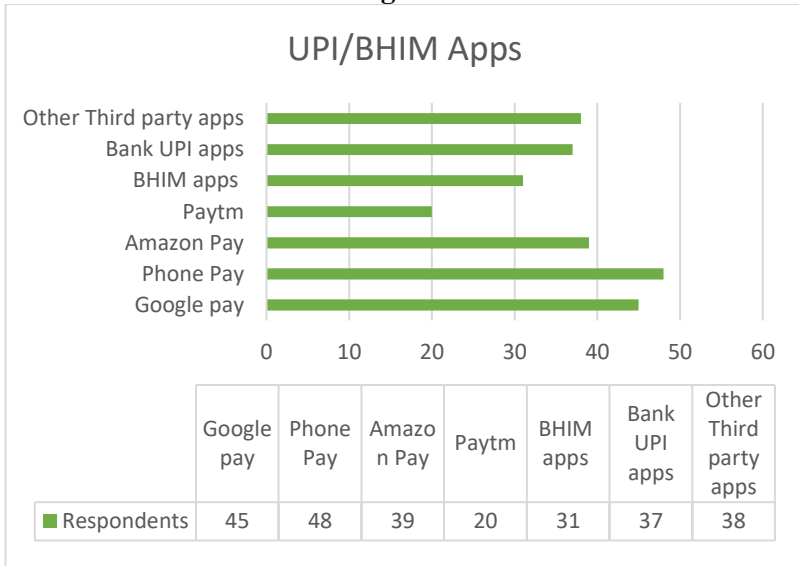
ISSUES	Respondents	Percentage
Activating UPI Applications	29	58%
Encountering problems when connecting bank accounts	26	52%
Transferring funds either way	31	62%
Experiencing difficulties with recharges, bill payments, shopping, banking services, etc.	34	68%
Scanning QR codes, displaying QR codes, managing UPI IDs, etc.	39	78%
Transaction Limit	35	70%
Extra Transaction Charges	29	58%
Declined transaction and refunds issues	43	86%

**Interpretation:** 29 customers are encountering challenges with activating and operating UPI apps during banking services. Additionally, 26 customers are experiencing technical difficulties when linking their bank accounts. Furthermore, 31 customers are encountering issues with sending or receiving money through UPI apps. Moreover, 34 customers are facing problems during recharges, bill payments, shopping, and other banking activities. Another 39 customers lack proper knowledge about functions such as scanning QR codes, displaying QR codes, and managing UPI IDs. Additionally, 35 customers are facing transaction limits while making payments and receiving funds. Furthermore, 29 customers are experiencing issues with extra transaction charges. Lastly, 43 customers are concerned about declined transactions and their overall transaction experiences.



## Use of UPI/BHIM apps?

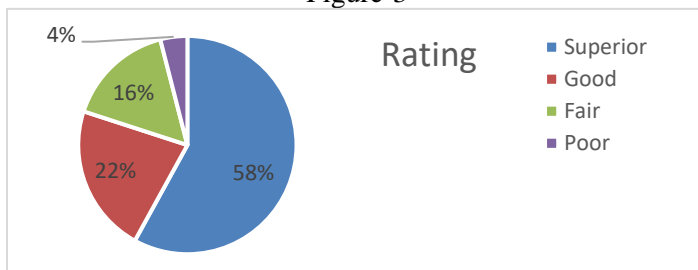
Figure: 2



**Interpretation:** 45 customers are using Google pay apps for banking services, 48 customers are using phone pay apps, 39 customers are using Amazon pay apps for banking services, 20 customers are using Paytm apps due to shut down of company for banking, 31 customers are using BHIM UPI apps for banking services, 37 customers are using Bank UPI apps for banking, 38 customers are using Other third party apps for banking services like send or receive money, balance inquiry, bill payments, shopping, etc. in the rural banking activities.

## Rating For Upi/Bhim Banking Services

Figure-3



**Interpretation:** Out of the total respondents, 29 customers (58%) rated the banking services as "Superior," while 11 customers (22%) found them to be "good," 8 customers (16%) rated them as "fair," and 2 customers (4%) labelled them as "poor." Notably, the majority of respondents, comprising 58%, rated the services as "Superior."

**Findings:**

In the study “A STUDY ON CUSTOMERS PERCEPTION ON DIGITAL BANKING AND ITS IMPACT ON BANKING ACTIVITIES W.R.T. UPI BANKING” the following are the findings:

- It is found that maximum customers holding saving account and few are holding fixed deposit account. They are doing banking activities in post office, RRB's and in commercial banks.
- It is observed that, the male respondents are 38(76%) and female respondents are 12(24%). Among them male respondents are more than female.
- It is observed that the respondents with 0-1lks income are 10(20%), 1lks-2lks are 16(32%), 2lks-3lks are 12(24%) and 3lks-4lks are 12(24%). In this analysis income group of 1-2lks are more than others income groups.
- In rural banking activities, there are 26 customers utilizing online banking services, 42 customers employing UPI/BHIM, 38 customers opting for Mobile banking services, 39 customers engaging in card banking, 25 customers utilizing Point of Sale (POS) banking services, and 31 customers utilizing AEPS banking services for tasks such as money transfers, balance inquiries, bill payments, shopping, and more. 28 customers are facing UPI apps activation and operation issues while banking services, 35 customers have technical problems while linking bank account, 31 customers are issues in send or receive money in UPI apps, 21 customers have problem during recharge, pay bills, shopping, banking, etc., 38 customers are not having proper knowledge about Scan QR Code, Show QR Code, Manage UPI ids, etc.
- 45 customers are using Google pay apps for banking services, 48 customers are using phone pay apps, 39 customers are using Amazon pay apps for banking services, 20 customers are using Paytm apps due to shut down of company for banking, 31 customers are using BHIM UPI apps for banking services, 37 customers are using Bank UPI apps for banking, 38 customers

are using Other third party apps for banking services like send or receive money, balance inquiry, bill payments, shopping, etc. in the rural banking activities.

- Out of the total respondents, 29 customers (58%) rated the banking services as "Superior," while 11 customers (22%) found them to be "good," 8 customers (16%) rated them as "fair," and 2 customers (4%) labelled them as "poor." Notably, the majority of respondents, comprising 58%, rated the services as "Superior."

### **Conclusions & Suggestions:**

As the service sector in India undergoes a transformative phase, propelled by initiatives such as the Digital India scheme, significant advancements are witnessed across various domains. Particularly, the banking sector has undergone notable changes, with a focus on digitalization. A recent study titled "Examining Customer Perceptions of Digital Banking and Its Impact on Banking Activities, with a Focus on UPI Banking" concludes that digital banking in rural areas has experienced substantial enhancement.

The proliferation of innovative digital banking platforms has heightened awareness among rural customers, enabling them to access banking services conveniently. Across different age groups, there is a discernible preference for various forms of digital banking, particularly UPI/BHIM apps. Businesspersons and students actively engage in UPI/BHIM banking for their financial transactions. Furthermore, the youth in rural areas are increasingly adopting digital banking practices and are instrumental in disseminating awareness within their social circles.

The attractiveness of UPI/BHIM banking is amplified by incentives such as rewards, awards, cashbacks, and other promotional offers, effectively drawing in customers. These applications offer unparalleled convenience and cost-effectiveness, making them indispensable tools for banking purposes.

However, the study identifies certain challenges faced by rural customers during UPI transactions, including issues related to linking bank accounts, UPI PIN generation, and creating VPI addresses. It emphasizes the importance of addressing these issues through widespread awareness campaigns conducted via advertisements, banking institutions, and customer service points. By tackling these challenges, rural communities can fully leverage the benefits of digital banking, ensuring financial inclusion and empowerment.

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**Chapter: 20**  
**Digital Banking Tools: An Overview**

**Dr. Atish Uttamrao Rathod**

**Introduction:**

Digital payment is a way of payment which is made through digital modes. In digital payments, payer and payee both use digital modes to send and receive money. It is also called electronic payment. No hard cash is involved in the digital payments. All the transactions in digital payments are completed online. It is an instant and convenient way to make payments. In a system of inter-woven financial and international economic linkages, an efficient payment and settlement system is paramount. In the Indian set up with an enormous spread of banking and non-bank financial institutions and other financial organizations, ensuring adequate payment and settlement structures with strong security measures is critically significance.

In a Digital banking most of the transaction will be done by digital means like e banking, debit and credit cards, POS (point of sales) machines, digital wallets etc. In simpler words no liquid money or paper currency will be used by the people in a given country. In a cashless economy the third party will be in possession of your money. We will allow you to transact that money whenever it is needed. If it is not needed then the third party can use that money. Cashless Economy is when the flow of cash within an economy is non-existent and all transactions have to be through electronic channels such as direct debit, credit and debit cards, electronic clearing, and payment systems such as Immediate Payment Service (IMPS), National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS) in India. As of now, Cashless Economy has only academic importance. The Indian Economy continues to be driven by the use of cash; less than 5% of all payments happen electronically. in India, the ratio of cash to gross domestic product is 12.42% in GDP, which is one of the highest in the world. It was 9.47% in China or 4% in Brazil. Further, the number of currency notes in circulation is also far higher than in other large economies; India had 76.47 billion currency notes in circulation in 2012-13 compared with 34.5 billion in the US. The expansion of telecom and smart phones would provide a digital shift

to the economy in near future. The private sector the driver of this change Government is also mulling to provide incentives for electronic payments for example waiver of tax when electronic settlements are used. The private sector has to come forward to drive the change. Apart from this government should also give incentives for electronic transactions.

### **Research Methodology:**

The present study is mostly depends on secondary sources of the data which is collected by the researcher from various news papers, research papers/ articles, journals and official website of Reserve Bank of India for compilation of the study.

### **Objectives of the Study:**

The following objectives have been made for the current study;

1. To know the Digital Payment System in India
2. To know the Digital Banking Tools in India
3. To understand the Types of Digital Payments in India
4. To Know the Need of Digital Banking in India

### **Digital Banking Tools in India:**

Digital trending in India nowadays, soon after government's demonetization move, people started adapting to modern ways of cashless payment options. There are many cashless payment options available in India. But in this post I will share with you the best 5 cashless payment options that you can use to transact cashless India. If you are new to cashless transactions, don't worry. I am here to help you out. Going cashless is awesome. It saves time & the best parts of cashless payments are those discounts and cash back. To promote cashless economy, many cashless transaction providers have started giving out 100% cash back on cashless transactions. With limited cash in hand and an indefinite crunch in sight, most people are rushing to cashless transactions. "Digital transactions bring in better transparency, scalability and accountability. The new move will compel more merchants to accept digital money.

### **Mobile Wallet:**

This is basically a virtual wallet available on your mobile phone. You can store cash on the mobile to make online or offline payments. Various service providers offer these wallets via mobile apps, which you need to download on the phone. You can transfer

the money into these wallets online using credit/debit card or Net banking. This means that every time you pay a bill or buy online via the wallet, you won't have to furnish your card details. It's become very famous nowadays. After demonetization, use of e wallets has been implemented at a very large-scale. You might have seen those 'chai walas' and other road side vendors accepting Paytm. That is what exactly e wallets are all about. Paytm is an e wallet and there are many others available.

### **Unified Payments Interface (UPI):**

UPI is a mobile payment system which allows you to do various financial transactions on your Smartphone. UPI allows you to send or receive money using virtual payment address without entering bank information. Merchants can enroll with banks to accept payments using UPI. Like in the case of a POS machine, the merchant would require a current account with a bank to accept UPI payments. The examples of few UPI Apps are SBI Pay, ICICI Pocket, Axis Pay UPI App, Union Bank UPI App, PNB UPI, PhonePe, TranZapp etc. To pay using this system called Unified Payments Interface, you need two important things: Smartphone and a Bank Account.

### **Plastic Money:**

Means Debit Cards and Credit Cards that are used at ATM's for cash withdrawal and POS machines while shopping having a debit or credit cards make you burden free from carrying cash. This includes credit, debit and prepaid cards. The latter can be issued by banks or non banks and can be physical or virtual. These can be bought and recharged online via Net banking and can be used to make online or point-of-sale purchases, even given as gift cards.

### **Net Banking:**

This does not involve any wallet and is simply a method of online transfer of funds from your bank account to another bank account, credit card, or a third party. You can do it through a computer or mobile phone. Log in to your bank account on the Net and transfer money via national electronic funds transfer (NEFT), real-time gross settlement (RTGS) or immediate payment service (IMPS), all of which come at a nominal cost ranging from Rs 5-55.

### **Aadhaar Enabled Payment System:**

Aadhaar Enabled Payment System (AEPS) is one of the best cashless payment methods. AEPS is like Micro ATM it uses smartphone and a finger-print scanner for the transaction. In order to use this facility, it is mandatory to link your Aadhaar card to your bank account. You can use AEPS in order to perform transaction like Aadhaar to Aadhaar fund transfer, Cash withdrawal, Cash deposit etc

### **Cheque:**

The cheque is one of the oldest methods of cashless payment. It is a known method to everyone. In this method, you issue a cheque for the specific amount to someone else. The cheque gets deposited in the respective bank. The bank processes a payment through a clearing house. The entire transaction done through cheque gets recorded and there is a proof of payment. However, there are instances where cheque payments get dishonored due to signature mismatch or insufficient fund. In order to avoid such issue, you can use other cashless payment options.

### **Demand Draft:**

Demand draft is another rudimentary way of cashless transaction. It is a safest option to receive payment from anyone. Demand draft (DD) never gets defaulted as it is signed by the banker. The disadvantage of DD and cheque is you need to visit a bank in order to deposit cheque and demand draft. The clearance of cheque or DD takes additional time.

### **Online Transfer- NEFT or RTGS:**

The third simplest method for the cashless transaction is online transfer using NEFT or RTGS. In order to do online money transfer, you need internet banking facility. Online transfer using NEFT or RTGS is comparatively faster than cheque or DD. Online transfer can be done from anywhere using internet facility.

### **E-Wallets:**

E-wallet is next cashless payment option. E-wallet can be used to purchase products starting from grocery to airline tickets. In order to use E-wallets customer and merchant, both require a Smartphone with active internet connection.



**Gift Card:**

The next cashless payment method is a gift card. Gift Card is a readymade card and can be purchased from a merchant or from the bank. The gift card is loaded with a fix cash amount you can purchase any item from the specific vendor by using a gift card.

**Unstructured Supplementary Service Data:**

We can use USSD cashless option if you don't have a Smartphone or internet connection. Unstructured Supplementary Service Data is mobile banking service. From any mobile phone, you can dial \*99# and use this service. You can do all these things which are available to a person with Smartphone and internet connection. Almost all banks including SBI, ICICI, BOB, Axis Bank and PNB support USSD payment option. In a cashless economy most of the transaction will be done by digital means like e banking, debit and credit cards, POS (point of sales) machines, digital wallets etc. In simpler words no liquid money or paper currency will be used by the people in a given country. In a cashless economy the third party will be in possession of your money. We will allow you to transact that money whenever it is needed. If it is not needed then the third party can use that money.

**Need of Digital Banking in India:**

The main advantage of a cashless society is that a record of all economic transactions through electronic means makes it almost impossible to sustain black market or underground economies that often prove damaging to national economies, according to Infowars.com. Because it is also much more risky to conduct criminal transactions or avoid the proper payment of due taxes in a cashless society, such violations are likely to be greatly reduced. A robust payments mechanism to settle a digital transaction is also needed, though the National Electronic Funds Transfer and Real Time Gross Settlement services. The Indian central bank will also have to shed some of its conservatism, part of which is because it has often seen itself as the protector of banking interests rather than overall financial development. The ease of conducting financial transactions is probably the biggest motivator to go digital. You will no longer need to carry wads of cash, plastic cards, or even queue up for ATM withdrawals. It's also a safer and easier spending option

when you are travelling. The following points are required to Cashless Economy in India.

1. To eliminate corruptions on India.
2. To destroy completely black money from Indian financial market.
3. To stop the dangerous problem of fake note currencies.
4. To reduce expenses of currency note printing, save papers and distribution.
5. To stop terrorism attacks in India.
6. To stop all money transactions related to illegal mode.
7. Reduced instances of tax avoidance because it is financial institutions based economy where transaction trails are left.
8. It will curb generation of black money
9. Will reduce real estate prices because of curbs on black money as most of black money is invested in Real estate prices which inflates the prices of Real estate markets.

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**Chapter: 21**  
**Use of UPI By MSRTC and Customer Satisfaction**

**Dr. Sarsare S. M.**

**Abstract:**

India becomes the most respectful country in the world. For India, 21st century brings the new horizon of development in the form of Electronic and Information Technology. The Digital Payment System (DPS) is one of the most important parts of Digital India Programme and it has been taken the initiative through National Payment Corporation of India (NPCI). The NPCI is an umbrella organization for all retail payments system in India which has introduced Unified Payments Interface i.e. UPI in 2016. The customers become highly satisfied with UPI for various transactions, including money transfers, merchant bill payments, utility bill payments, and online shopping. Therefore, Maharashtra State Road Transportation Corporation (MSRTC) or the ST department has adopted information technology to get tickets through UPI for the passengers, in the first phase; arrangements have been made to issue tickets through QR code in all the buses. In this direction, in present study researcher has spotlighted the passengers or customer's satisfaction in respect to the UPI.

**Key Words:** Digital India, Digital Payment System, Unified Payments Interface (UPI), Maharashtra State Road Transportation Corporation (MSRTC), Customer Satisfaction, etc.

**Introduction**

Today, India becomes the most respectful country in the world. For India, 21st century brings the new horizon of development in the form of Electronic and Information Technology. In this modern world, there are so many countries which are performing the role of developers. Among them, India is not far behind. India is taking the initiative of development by adopting the information technology in routine work. It can be depicted by Digital India's various initiatives.

The Digital Payment System (DPS) is one of the most important parts of Digital India Programme. If we want to develop rapidly, then it becomes crucial to adopt DPS in our daily life and we are marching towards it. Further, it can be depicted that, until we are not using DPS in retail sector, it cannot become digitally

developed country. For that purpose, India has taken the initiative through National Payment Corporation of India (NPCI).

National Payments Corporation of India (NPCI) is an umbrella organization for all retail payments system in India. It was set up with the guidance and support of the Reserve Bank of India (RBI) and Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, for creating a robust Payment & Settlement Infrastructure in India. The core objective is to consolidate and integrate multiple systems with varying service levels into nation-wide uniform and standard business process for all retail payment systems. The other objective was to facilitate an affordable payment mechanism to benefit the common man across the country and help financial inclusion. It is centered on bringing innovations in the retail payment systems through the use of technology for achieving greater efficiency in operations and widening the reach of payment systems.

Considering the inherent relation of the citizen with the road passenger transport business, the Central Government has made a Road Transport Corporation Act 1950 for the purpose of overall development of the nation / citizens, and for the purpose of establishing a separate Road Transport Corporation in every state for the commuters' traffic business. In view of this, Maharashtra Government has created Maharashtra State Road Transport Corporation (MSRTC) for the purpose of creation of a network of sources, affordable, speedy and efficient road passenger traffic service for the citizens. The MSRTC is established by State Government of Maharashtra as per the provision in Section 3 of RTC Act 1950. The MSRTC is operating it's services by the approved scheme of Road Transport Published vide Notification MVA 3173/30303-XIIA dated 29.11.1973 in the official gazette.

Maharashtra State Road Transport Corporation (MSRTC) provides passenger services to commuters within the State as well as to adjoining states through depots and bus stations located at talukas & important traffic centers. During 2022-23 up to September, Maharashtra State Road Transport Corporation (MSRTC) has on an average per day effectively operated 12,904 buses by covering 43.81 lakh km and carrying 36.03 lakh passengers (GoM,2023). It

represents the necessity of MSRTC for public transportation in Maharashtra.

Unified Payments Interface, commonly referred to as UPI, is an Indian instant payment system developed by the National Payments Corporation of India (NPCI) in 2016. The interface facilitates inter-bank peer-to-peer (P2P) and person-to-merchant (P2M) transactions. It is used on mobile devices to instantly transfer funds between two bank accounts. The mobile number of the device is required to be registered with the bank. The UPI ID of the recipient can be used to transfer money. It runs as an open source application programming interface (API) on top of the Immediate Payment Service (IMPS), and is regulated by the Reserve Bank of India (RBI). Indian Banks started making their UPI-enabled apps available on Google Play on 25 August 2016 (Wikipedia, 2024). The response to UPI can be realized as Unified Payment Interface (UPI) transactions clocked a new high in value in January by touching Rs 18.41 trillion, up marginally by 1 per cent from Rs 18.23 trillion in December. Transactions increased by 1.5 per cent to 12.20 billion, compared to 12.02 billion in October. According to data shared by the National Payments Corporation of India (NPCI), January 2024 numbers were 52 per cent higher in volume compared to the same month last financial year (Business Standard, 2024).

The Unified Payment Interface (UPI) could make easy to pay ticket fare. It may helps to passenger or customers, to travel without money anytime, anywhere. Here, it comes to know the need of UPI while travelling through ST i.e. State Transport or MSRTC. Embracing the long-pending digital Reform, the State Transportation in March, 2024 announced that over 34000 Android based ticketing machines have been issued to bus conductors across Maharashtra to accept payment through UPI. The MSRTC has fleet of over 14000 buses that make daily trips across Maharashtra and also across Andhra Pradesh, Telangana, Madhya Pradesh, Karnataka and Gujarat. According to, MSRTC's PRO, over 55 lakh passengers use the bus services of the State Transportation and it will be benefit for them. The facility of UPI payment will do away with the hassle associated with exchanging cash while giving tickets. At times, disputes also take place over the return of the money, which will no longer take place. While digital payment is now accepted across

buses, passengers also have the option of making payment through cash in a traditional manner. The reform has been implemented smoothly without any glitches on day one.

### **Review of Literature**

For the present study pilot review of literature has been taken, to understand the various facets of MSRTC. The study undertaken by Karne, M. and Venkatesh, A. (2003) entitled, "Analysis of Productivity and efficiency in MSRTC", examined the issue of splitting MSRTC into smaller regions to find out whether it would actually help in its financial recovery as well as examined the possibility of improvement in financial profitability by means of enhanced input productivity. Pardeshi, Rajendrasingh (2015) in this study tried to analyse the performance of MSRTC in Ahmednagar district of Maharashtra (India). It shows that, MSRTC in Ahmednagar district was not able to capitalize it as 40-42% seating capacity of buses was unutilized (Vacant). Further, researchers have suggested the use of ICT for improvement of Performance of MSRTC in Ahmednagar district. Further, the study carried out by Sarsare and Bidwe (2019) entitled, Modern Payment System for MSRTC, explains need of Digital Payment System for MSRTC.

The reviews are talking about the efficiency, productivity, economic profitability as well as the performance of MSRTC. But, in respect of UPI and MSRTC, researcher found only one study carried out for digital payment system. Hence, the present study made an attempt to know the approaches of passengers about the UPI in respect of MSRTC.

### **Scope and Limitations of the Study**

The present study has focused on the Maharashtra State Road Transport Corporation (MSRTC) and Unified Payment Interface (UPI), whereas due to the time limitation, the study has covered the area of two districts and two talukas.

### **The objectives of the Study**

The study has been conducted in the view of following objectives:

- i. To identify the awareness of bus passengers about UPI.
- ii. To know the satisfaction of customers regarding UPI in MSRTC.

## Data Collection and Methodology

The present research study highlights on the digital payment system introduced by MSRTC. For that, researchers have undertaken the survey in selected bus stands i.e. two urban areas (Nanded and Latur) and two rural areas (Dharashiv district's Kalamb and Beed district's Dharur taluka).

The sample for the study is 100 (25 from each bus stand) passengers of bus (respondents) which have been selected by purposive sampling method. By undertaking the interview, the data/ responses have been collected from respondents.

## Data Analysis and Interpretation

Considering the objectives of the study, the researcher has collected the responses from respondents and the same has been presented in tabular form as follows:

### Awareness of Bus Passengers about Unified Payment Interface (UPI)

The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. If, we want to use DPS in routine transaction we must be digitally empowered. Thus, researcher collected data from respondents about the awareness of Unified Payment Interface (UPI) as well as UPI introduced by MSRTC and presented in table 1.

**Table 1: Awareness of Bus Passengers about Unified Payment Interface (UPI)**

Sr. No.	Name of Bus Stand	Aware about UPI	Awareness Percentage about UPI	Aware about UPI introduced by MSRTC	Awareness Percentage about UPI introduced by MSRTC
1	Nanded	22	88	11	44
2	Latur	19	76	13	52
3	Dharur	15	60	5	20
4	Kalamb	18	72	6	24
<b>Total</b>		<b>74</b>	<b>74</b>	<b>35</b>	<b>35</b>

Source: Primary Data

The table 6.1 clearly revealed that, 74 percent of respondents are aware about the UPI whereas only 35 percent respondents are aware about UPI introduced by MSRTC i.e. 65 percent respondents are unaware about UPI has been introduced by MSRTC. Further, the respondents aware about the UPI introduced by MSRTC among them very negligible number of respondents make payment by using UPI and purchased ticket. Furthermore, respondents from urban areas are more aware about UPI than rural areas respondents.

**The Satisfaction of Customers regarding UPI in MSRTC**

Today, from the tea shop to the mall, online money transfer facility is available everywhere. However, the question was often raised by the passengers that why there is no online facility in the public transport which collects lakhs of rupees every day. Even in ST every day there was a verbal argument between the passengers and the carrier over loose money. Therefore, the ST department has adopted information technology to get tickets online for the passengers, in the first phase; arrangements have been made to issue tickets through QR code in all the buses. Furthermore, passengers will get assistance in case of any loss of money while booking tickets online and non-arrival of tickets. For this helpline number '400' has been started by ST. Also, citizens can contact the number 8800688006 (SDT, 2023). In this direction, researcher is keen to know about the satisfaction of customers or passengers regarding UPI in MSRTC and same has been recorded in table 2.

**Table 2 The Satisfaction of Customers regarding UPI in MSRTC**

Sr. No.	Name of Bus Stand	Satisfied	Neutral	Unsatisfied
1	<b>Nanded</b>	15	9	1
2	<b>Latur</b>	14	8	3
3	<b>Dharur</b>	7	18	0
4	<b>Kalamb</b>	8	17	0
<b>Total</b>		<b>44</b>	<b>52</b>	<b>4</b>

Source: Primary Data

Though the maximum respondents have not experienced the UPI in MSRTC, they have expressed their satisfaction level. The table 6.2 represents, 44 percent of respondents are satisfied about



UPI in MSRTC and maximum 52 percent respondents or passengers are neutral about the satisfaction regarding UPI in MSRTC. However, only 4 percent respondents are unsatisfied. It represents that, the respondents from urban areas are more satisfied about UPI in MSRTC.

### **Conclusion**

The majority ST passengers (respondents) are aware about the UPI but rare passengers or respondents are aware about the UPI adopted by MSRTC in Buses. Further, the respondents aware about the UPI introduced by MSRTC among them very negligible number of respondents make payment by using UPI and purchased ticket.

Furthermore, respondents from urban areas are more aware about UPI than rural areas respondents.

It has been shown that respondents are using UPI in their daily life but still not experienced it. Hence, maximum numbers of respondents while responding about satisfaction become neutral. Therefore, it is suggested that, ST or MSRTC have to create awareness among the passengers about use of UPI in Buses.

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## Chapter: 22

# Technological Innovation in Banking- After Economic Reforms

**Dr. Ganesh Narayanrao Bokare**

### **Abstract :**

The RBI was nationalized in 1949 followed by the nationalization of Imperial Bank of India (now the State Bank of India) in 1955. In July, 1969, 14 major commercial banks were nationalized and in April 1980, 6 more commercial banks were nationalized. Banking developments in India after Independence has been mainly a state induced activity. The public ownership of banks was achieved in stages.. Thus, prior to introduction of economic reforms in early 1990s, banking business in India was a near monopoly of the Government of India. Banking sector reforms in India are aimed at introduction of best international practices and technological changes for making the Indian banking sector competitive globally. They have significantly improved the stability of the Indian financial system and have supported the transition of the Indian economy to a higher growth path.

The banking sector reforms in the last two decades have had unequal impact on various categories of banks and has shown imbalance in regional growth. This paper primarily tries to bring out the discrepancies in the spread of certain new technologies in banking along with lopsided regional branching out of commercial banks since the introduction of reforms.

### **Introduction:**

Commercial banks are the oldest, largest and fastest growing financial intermediaries in India. They are also the most important depositories of public saving and the most important disbursers of finance. Commercial banks in India have been playing a very important role in the process of development due to their modern organization and functioning, huge funds and wide network all over the country. Before the introduction of reforms, the banking sector suffered from lack of competition, low capital base, inefficiency and high intermediation costs. The role of technology was minimal and the quality of service was not given importance. Banks also did not follow proper risk management systems and the prudential standards were weak. All these resulted in poor asset quality and low

profitability. To improve the adverse situation in banking sector, reforms were introduced since 1991. Reforms in the banking sector had two distinct phases. The 'first phase of banking sector reforms was introduced subsequent to Narasimhan Committee Recommendation of 1991. The second phase of banking reforms was introduced subsequent to Narasimhan Committee Recommendation of 1998. Since the beginning of liberalization, the banking industry in India is undergoing a transformation. Interest rates have declined considerably but there is evidence of under-lending by the banks. The “social” objectives of banking measured in terms of rural credit are, far from satisfactory. The banking sector as a whole and particularly the public sector banks still suffer from considerable NPAs, but the situation has improved over time. New legal developments like the SARFAESI Act provide new options to banks in their struggle against NPAs. The adoption of Basel-II norms however implies new challenges for Indian banks as well as regulators. During the last two decades, the Indian banking industry has become more competitive and less concentrated.

#### **Objectives of the Research :**

1. To study the discrepancies in the expansion of commercial bank branches.
2. To study the new technologies introduced in the banking sector and their incongruous growth during the reform period.

#### **Hypothesis:**

“Branching out of commercial banks and the use of latest technology has urban bias.”

#### **Background and Literature Review:**

- 72,800 villages with a population above 2,000 were identified for setting up banking services by March 2012, and later to other villages. The banks were advised that while preparing their Annual Branch Expansion Plan, they should allocate at least 25 per cent of the total number of branches proposed to be opened during a year to unbanked rural (Tier V and Tier VI) centres. For providing better banking services in Tier II centres, the general permission being granted to domestic scheduled commercial banks for opening branches in Tier III to Tier VI centres, was extended to opening branches in Tier II centres (with population

of 50,000 to 99,999 as per Census 2001) without the need to take permission from the Reserve Bank in each case but subject to reporting.

- In the Indian context, technological innovation and investment in IT during the period 2005-06 to 2009-10 led to efficiency gains for the scheduled commercial banks (Rajput and Gupta, 2011). Technology is encompassing the entire set of business processes in the banking Industry and technological innovations are enabling banks to cope with increasing customer requirements, social and developmental expectations, strategic and competitive business needs, internal control and risk management needs, governance and regulatory reporting requirements.
- Economic theory supported by empirical evidence suggests that, in general, increase in technology investment will raise productivity, lower costs, and allow firms to operate more efficiently. Information technologies and the innovations they enable are strategic tools, since they reduce the costs of financial transactions, improve the allocation of financial resources and increase the competitiveness and efficiency of financial institutions. Technological innovation not only enables a broader reach for consumer banking and financial services, but also enhances its capacity for continued and inclusive growth (Subbarao, 2009).

### **Observations and Explanations:**

#### **A) Rationale of nature or policy of expansion of new branches:**

##### **Financial inclusion and spreading out of branches:**

As a measure to support and further financial inclusion, it was decided to permit inter-operability at the retail outlets or sub-agents of Business Correspondents (*i.e.*, at the point of customer interface), provided the technology available with the bank that has appointed the BC supports inter-operability, subject to the following conditions: (i) the transactions and authentications at such retail outlets or sub-agents of BCs are carried out on-line; (ii) the transactions are carried out on a core banking solution (CBS) platform; and (iii) the banks follow the standard operating procedures to be advised by the Indian Banks' Association (IBA). However, the BC or its retail outlet or sub-agent at the point of

customer interface would continue to represent the bank that has appointed the BC.

### **Ultra-small branches (Brick and mortar structures)**

The success of the BC model is dependent on the support provided and monitoring by the base branches of the concerned banks, the Reserve Bank had advised banks that they may establish outlets in rural centres, which are intermediate brick-and mortar structures (Ultra-Small Branches) between the existing base branch and BC locations, to give support to a cluster of about 8-10 BC units at a reasonable distance of about 3-4 kilometers. Such Ultra-Small Branches should have the minimum required infrastructure, such as a CBS, and would have to be managed full-time by bank officers/employees. BCs can operate from such Ultra-Small Branches, which would improve their image and value in the area and encourage the public to use their services.

**Special Dispensation Scheme to improve banking in the North-Eastern Region.** Under the Special Dispensation Scheme, the Reserve Bank had undertaken to reimburse a one-time capital cost and recurring expenses for five years to banks for setting up branches at agreed centres in the North-Eastern Region, and the State Governments had agreed to provide the required premises, security and rental accommodation for the bank staff.

### **B) Impact of IT on banking services:**

1. Under the regime of banking sector reforms, IT-Act of 1999 gave new dimensions to the Indian banking industry. The most important types of virtual banking services are Automated Teller Machines (ATMs), electronic fund transfer, phone-banking, credit card, debit card, smart card, internet banking and so on. Technology will be the key to reduce transaction cost, to offer customised products and to manage risks. The banks in India are using electronic and telecommunication networks for providing a wide range of value added products and services. Some of the important new technologies that are being used by the banks are given in brief below:

1.**ATMs:** ATMs are self service vendor machine that help the banks to provide round the clock banking services to their customers at convenient places without visiting the bank premises. To get ATM services customers are provided with ATM card, which is a small

plastic card with magnetic strip, containing information about the name of bank, name of the customer, card number, validity period and signature panel. The ATM provide a number of services such as withdrawal of cash upto a particular limit, deposit of cash, cheques and drafts, updated balance of customer, transfer of money from one account to another accounts, mini account statement and so on. The ATMs are emerging as the most useful tool to ensure 'any time banking' and 'anywhere banking' or 'anytime money'.

**2. Debit Card:** It is a prepaid card with some stored value. It allows 'anywhere anytime accesses' to the customers' saving or Current account. A Personal Identification Number (PIN) is issued to the customers for using the debit card. It can be used at all outlets that accept such cards for payments. In this case, the transaction amount is directly debited to the bank account of the customer. Debit card does not permit a customer to spend over and above his cash balance in the bank.

**3. Credit Card:** It is a sort of medium of exchange whereby a customer can purchase goods and services within the prescribed limits from authorized outlets without making immediate cash payments.

**4. Point of Sale (PoS):** The PoS terminal is a machine that facilitates transactions through swipe of a card through online. Shops especially operate point of sale in their premises in order to accept plastic cards. The PoS terminals facilitate electronic funds transfer. PoS system identifies the cardholder and check whether the customer's account has sufficient funds to cover the purchase. The customized PoS terminals can support both debt and credit cards and can also be made to support different kinds of plastic including magnetic and smart chip based cards to make the transaction possible.

**6. Internet Banking:** It is on-line banking where many banking services are provided through the internet. It helps customers to open accounts, pay bills, know account balances, forward loan application, and view and print copies of cheques, transfer funds, stop payments, etc. Different banks provide different levels of such services.

**7. Mobile banking:** It is an extension of internet banking. It gives everybody with a mobile phone to access banking services,

irrespective of their location. In this system, a customer can access his account details on a mobile phone by using the Short Messaging Service (SMS) technology. It provides many services such as account balance, mobile alerts about credit card or debit card transactions, mini account statement and so on.

**8. Telebanking** : It is another form of electronic banking through which banking services or products are rendered through telephone to its customers. It is a 24 hour banking facility to the customer. It is based on the voice processing facility available on bank computers.

**9. Phone banking**: Under this service a customer can talk to a phone banking officer for transacting a banking business. The customer can do entire non-cash related banking services on telephone, anywhere at any time.

**10. Electronic Fund Transfer (EFT)** : It is an easy and speedy mechanism to facilitate the transfer of funds from one place to another. It can be from one branch or the other of the same bank or a different bank not only within the country but also from anywhere in the world through electronic message. It enables the beneficiary to receive money on the same day or the next day of money transfer. ,

The RBI has introduced National Electronic Funds Transfer System (NEFT) in November 2005. It brings greater efficiency in the movement of funds and reduction in risks relating to the transfer of funds.

**11. Electronic Clearing Services (ECS)** : It is a non-paper based movement of funds. It consists of (i) Electronic Credit Clearing and (ii) Electronic Debit Clearing.

Electronic Credit Clearing service is a reliable device used for bulk and repetitive credit-push payments such as salary, pension, dividend, commission, IPO refunds, interest, etc. ECS facility is largely utilized by the public and private limited companies and government departments which make bulk and recurring payments.

Electronic Debit Clearing Service is mainly for the payment of credit-pull transactions such as payment of utility bills, insurance premium and repayment of loan instalments.

**12. Real Time Gross Settlement (RTGS)** : It is an electronic based settlement of inter-bank and customer based transactions, with intra-day collateralized liquidity support from the RBI to the participants of the system. The settlement is done in near real time (maximum of



2 to 4 hours) and the funds settled can be further used immediately. It was started in March 2004. Both high value and retail payments can be affected through the RTGS system.

2. As per Census 2011, 58.7% households are availing banking services in the country. There are 102,343 branches of Scheduled Commercial Banks (SCBs) in the country, out of which 37,953 (37%) bank branches are in the rural areas and 27,219 (26%) in semi-urban areas, constituting 63 per cent of the total numbers of branches in semi-urban and rural areas of the country. However, a significant proportion of the households, especially in rural areas, are still outside the formal fold of the banking system.

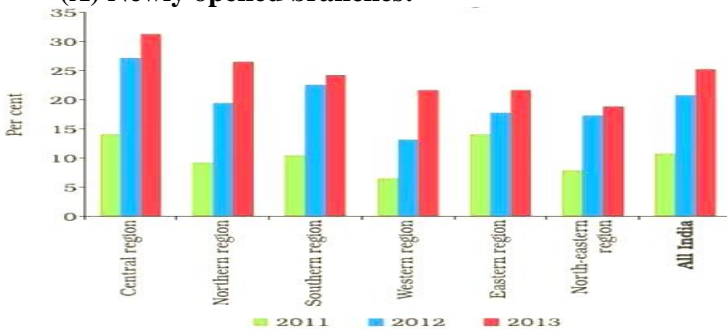
The number of ATMs in the country stands at 98,074, of which 38 per cent are owned by private sector banks, 33 per cent by public sector banks, 27 per cent by the SBI and Associates, and 2 per cent by foreign banks. There has been a 30 per cent year-on-year growth in the number of ATMs deployed in the country since 2008, but the penetration of ATMs in Tier III to Tier VI centres remains below the desired level.

Banks have also been advised to provide an onsite ATM in all the branches in identified districts and a Debit Card to all beneficiaries to enable him / her to withdraw the money as and when he wants.

As per the Budget announcement 2013-14, Banks are required to ensure an onsite ATM in all the branches. Out of 34,668 onsite ATMs thus identified to be installed by Public Sector Banks, 1,097 ATMs have been installed by end of April, 2013.

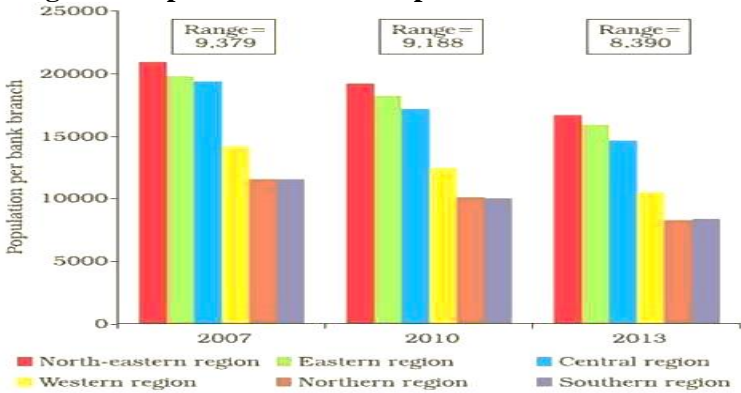
**C) Supportive Graphs and Diagrams:**

**(A) Newly opened branches:**



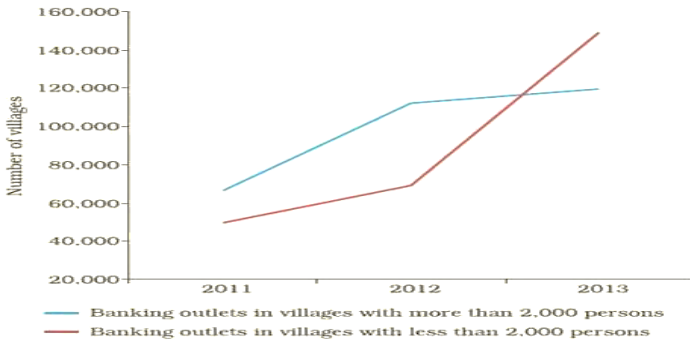
Source: Reserve Bank.

**(B) Regional Gaps in Branch development:**

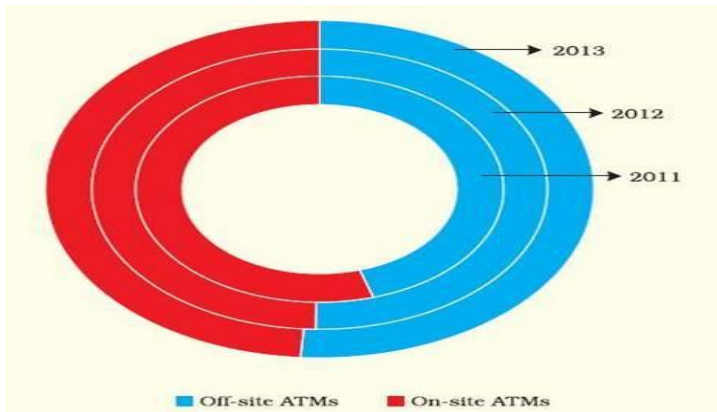


Source: Reserve Bank, Census of India database.

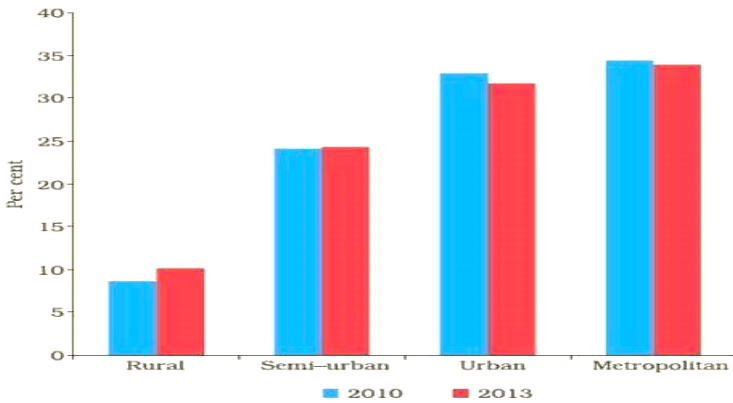
**(C) Village banking outlets:**



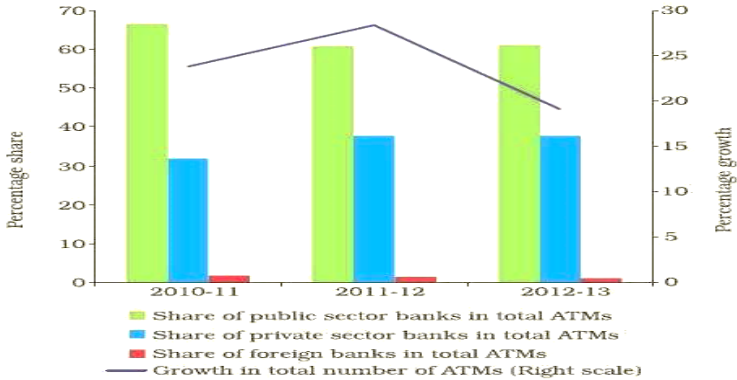
**(D) Location of ATMs : On-site and Off-site**



**(e) ATM distribution in the country:**



**(F) ATM growth in recent years:**



**(G) Tier-wise Break up of Newly Opened Bank Branches :**

Tier	2010-11	2011-12	2012-13P
Tier 1	1,942	2,235	1,752
Tier 2	449	642	791
Tier 3	1,167	1241	1006
Tier 4	663	823	727
Tier 5	580	979	1,114
Tier 6	877	1,553	1,823
Total	5,678	7,473	7,213

P: Provisional.

Source: Reserve Bank.

### **Methodology Adopted:**

I have relied upon various sources like published RBI's reports on the progress of banking, published articles, internet websites, newspaper articles, journal extracts for assimilating secondary data on the subject. The tables and charts hitherto published in RBI reports have also been used to justify the research hypothesis.

### **Limitations of the Research:**

The research is confined only to the study of the nature of branch expansion of commercial banks and the spread of ATM facility in the post reform period.

### **Conclusions :**

From the above discussions and supportive diagrams it can be inferred that in the expansion of banking services through branches, it can be found that Tier 1 and Tier 6 gets much more coverage and serious implementation. Even when it comes to developing, employing and integrating new technologies like ATMs, credit cards, Net-banking etc. in the working of the banks, it is the Semi urban, urban and metropolitan areas that get prominence and priority due to their existing infrastructure and easy acceptability by the banking institutions and the customers alike. Thus, when basic financial infrastructural facility like banking has a lopsided development in favour of semi-urban and urban areas, the larger picture of the RBI to penetrate unbanked areas and support financial inclusion becomes less effective. Although basic banking may reach remote and interior rural areas in a decade or so, the technology driven services of the banks will take time to reach interior rural branches for want of supportive infrastructure and lack of decent volume of business which is necessary to make advanced banking services feasible.

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## Chapter: 23

# A Study on Digital Transactions and Its Impact on Business

**Dr. Shyamsingh V. Raghuwanshi**  
**Prof. Dr. S. J. Jadhav**

### **Abstract:-**

Digitalization could be termed as one of the innovation in the sector of education as it highlights the various activities that lead to the modernization of business model or regarding education sector. The term digitalization refers to the conversion of paper mode or typewritten information (text) into the digital form, means encoding it into Zeroes & Ones so that Computer can store, process, and transmit such information. In order to reduce the risk of theft or fraud, the term digitization is very important as it bears the smooth or seamless transfer of funds.

**Keywords:** e-Business Transactions, Digital Platforms, Encryption, Financial transactions and payments.

### **Introduction: -**

In the present scenario, India has been reached to the topmost destination in the field of education and ready to move towards business sector too. Indian education system has adopted innovative skills so as to reach the final destination and making progressive approach towards business oriented phenomenon. In the world of Information Technology there is need to have an innovative ideas that represents the scope & significance of the business and it is all possible when a nation turn into the globalized form of business. Due to application of digital transactions it has widened the scope and enhanced the application of the business in the world of Information Technology. It shows all when little children watches their favorite cartoons on the device, e-learning with the application of digital technology. It represents explicit knowledge when apply the digital mode of education in the relevant area. All terms associated with the educational field is represented in a digital manner when it is being digitized with appropriate tools & techniques.

The impact of digitalization in educational sector has totally changed the scenario and a business process to a very great extent.

Technology based business came into existence providing business activities with technical aspects to both person and business. Various businesses with the diversified areas are leading a great role in the development of economy in terms of quick payment by using NEFT, UPI payment applications. Innovation and technology have been predominant in each sectors with undergoing vast changes in the past few years. Technology has made everything much easier and faster, leaving no option for various sectors of the economy but to adapt to change or fear to become obsolete. In the scenario of digitalization, the business sector need to have updated and innovated with the adequate proportion of techniques. The adaption of Digital transactions has had a significant impact on the Indian Economy which has resulted in the reduction of cash and cash equivalents.

Digitalization provides, fluidity to the Business sector by being a supplementary form of the system as it is available to students as per their need. While the traditional business system has a lack of online or e-transactions, business technology can be customized as per customer's requirements. It can be molded as per the customer's capability to understand and imbibe any particular transactions. As the world is moving towards digitalization India has no option but to keep pace with it. We know that the traditional business system in India is here to stay for the long haul and that no one can take away that learning experience. But our business system needs to be dynamic and needs to adapt technology. There is no need to fear a subject like digital and online transactions regarding transfer, deposits, withdrawal or allied transactions. Today, there are apps to learn languages or any other subject. Hence the significant role of digitalization appeared.

**Research Methodology:-**

Looking into the requirements of the research study the research design is being applied to adopt descriptive nature. The research study is descriptive in nature. The collection of data was significantly used from Secondary source and published articles extensively used. Various web articles distinctively used in order to frame the conclusions.

**Objectives of the Study:-**

1. To know the impact of digitalization in business sector.

2. To highlight the emerging trends in the business and relevant sectors due to digitalization.
3. To know the impact of digital payments on the government and financial institutions.
4. To know the role of payment gateway in the field of business, education and allied sector.

**Data Collection:-**

The research paper is based on the secondary source of information. The required data is extensively used or applied in order to prepare a research paper, as it is in the descriptive nature. The data is constructively collected to derive the conclusion from the information processed.

**Different terms regarding digitization:-**

**Artificial Intelligence (AI):**

It enables machines to learn patterns and make decisions for themselves. It allows a large scale of production at lower costs in the industry, makes plants more competitive and efficient.

**Automation:-**

It describes the use of digital systems to control the equipment and machinery within the factory.

**Autonomous:-**

These are technologies that can work on their own, without human interventions. Robots, Drones and even cars can be autonomous. They automate functions using artificial intelligence and can interact with other machines, objects and people.

**Business Intelligence:-**

It is necessary to transform the business data into action and extract feasible insights from it. Business intelligence comprises the strategies and technologies used by enterprises for the data analysis of business information. Business technologies provides historical, current, and predictive views of business operations.

**Collaborative Robots:-**

A type of machine that unlike traditional ones, can work alongside humans without any safety risk. They perform numerous functions and are very adaptable, changing activity or working capacity according to the demand of the moment.

**Impact of Digitalization on Business sector:-**

The prevalence of technology affected many areas of society in a positive manner, including business. In the recent scenario the business apply the innovated business models to adapt with the

changes in accordance with the globalized system. It is an extensive use of electronic based business models to deal with the critical issues arising in the business course of actions. The business sector has revealed the different outcomes due to adaption of technology in order to enhance the efficiency of businesses in all areas of business enterprise.

1. Due to the digitalization, the optimum utilization of resources were utilized and has revealed in the great efficiency of the business performance by providing outcomes such as reduced costs, low time consumption, increase in the productions and increase in the profits.
2. New products as well as new services has led to the development of digital transformation. Business are having quick and creative solutions due to the term digitalization and has increased the efficiency of overall business to make dynamic platforms for the achievement of desired outcome.
3. Due to evolution of digitization it enables to video conferencing when businesses in different part of the state, country or world connect, customers, business can meet their counterpart without leaving the platform. It is made available to all foreseeable business at each & every corner of the country.
4. The term digitalization has revealed the sound return on investments in the prescribed time period with the optimum utilization of resources in the productive manner. It has great impact on the business which turns into the productive outcome.
5. The use of technology has shown the optimum maintenance of inventory. It has created the separate tool for the management of inventory in order to have an attractive investment in the business portfolio to create an adequate returns in order to sustain in the long run.

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**Chapter: 24**  
**The Impact of E-Commerce on Traditional Business  
Models in India**

**Dr. Parik Meena Ramkailas**

**Abstract:**

E-commerce stands as a transformative force, fundamentally altering the operational paradigms of businesses while simultaneously redefining how consumers interact with the market. Traditional brick-and-mortar establishments, once stalwarts of commerce, now find themselves navigating uncharted territory as they contend with the disruptive influence of digital commerce. This research endeavour undertakes a meticulous examination of the multifaceted impact of e-commerce on traditional business frameworks.

At its core, this paper delves into the intricate interplay between e-commerce and traditional business models, meticulously dissecting the advantages and challenges inherent in this dynamic relationship. By scrutinizing the adaptive strategies employed by traditional businesses in response to the seismic shifts brought forth by e-commerce, this study endeavours to elucidate the evolving landscape of commerce in the digital era.

Central to this exploration is an analysis of consumer behaviour trends, elucidating how e-commerce has reshaped consumer preferences, purchasing habits, and expectations. Through a comprehensive review of pertinent literature and case studies, this paper endeavours to distil key insights into the evolving dynamics of consumer behaviour in the context of digital commerce.

Through a synthesis of theoretical frameworks, empirical evidence, and real-world examples, this paper seeks to provide actionable insights and strategic recommendations for traditional businesses seeking to navigate the complexities of the digital terrain. By fostering a deeper understanding of the symbiotic relationship between e-commerce and traditional business models, this research endeavour aims to equip stakeholders with the knowledge and tools necessary to thrive in an increasingly digital-centric marketplace.

**Keywords:** E-commerce, Traditional Business, Digital Transformation, Consumer Behaviour, Online Retail .

## **1. Introduction**

Over the past few decades, the advent of e-commerce has reshaped the way business is conducted, marking a profound shift in the dynamics of commerce. E-commerce, defined as the exchange of goods and services facilitated through online platforms, has emerged as a disruptive force, challenging the traditional stronghold of brick-and-mortar establishments in the retail arena. Formerly reigning supreme, traditional businesses now find themselves grappling with unprecedented obstacles posed by their digital counterparts.

This paper undertakes a comprehensive analysis of the ramifications of e-commerce on conventional business frameworks. It meticulously explores the multifaceted impacts of this digital revolution, shedding light on both the advantageous prospects and imminent threats it presents. By dissecting the intricate interplay between e-commerce and traditional business models, this study aims to elucidate the intricacies of this transformative phenomenon.

In dissecting the transformation wrought by e-commerce, this paper ventures beyond surface-level observations to uncover the intricate dynamics at play. It delves into the evolution of consumer behaviour, the reconfiguration of supply chains, and the restructuring of market dynamics induced by the digital paradigm. Moreover, it scrutinizes the adaptive strategies employed by traditional businesses in response to the encroaching dominance of e-commerce.

Furthermore, this analysis extends beyond the immediate economic implications to examine the broader societal and cultural shifts catalysed by the rise of e-commerce. From altering shopping habits to redefining notions of convenience and accessibility, the influence of e-commerce permeates various facets of contemporary life.

In essence, this paper serves as a nuanced exploration of the seismic impact of e-commerce on traditional business frameworks. By elucidating the complex interplay between innovation and incumbency, it endeavours to provide insights crucial for navigating the ever-evolving landscape of commerce in the digital age.

## **2. Evolution of E-commerce**

The journey of e-commerce traces its roots to the nascent stages of the internet, characterized by rudimentary online

transactions facilitated through basic electronic data interchange (EDI) systems. During this embryonic phase, the scope of online commerce was confined to relatively simple exchanges of electronic information between businesses. However, propelled by relentless technological innovation and the pervasive integration of the internet into everyday life, e-commerce swiftly burgeoned into a ubiquitous phenomenon.

The transformative trajectory of e-commerce is underscored by a series of pivotal milestones. The advent of online marketplaces such as Amazon and eBay heralded a paradigm shift, democratizing access to a diverse array of goods and services on a global scale. These platforms not only provided consumers with unprecedented choice and convenience but also empowered sellers, including small businesses and independent entrepreneurs, to reach a vast audience without the constraints of traditional brick-and-mortar establishments.

Moreover, the advent of mobile commerce (m-commerce) further catalysed the expansion of e-commerce by leveraging the ubiquity of smartphones and tablets. This evolution liberated consumers from the confines of desktop computers, enabling seamless transactions anytime, anywhere. Whether it's ordering groceries on-the-go or purchasing concert tickets from the comfort of one's couch, m-commerce has revolutionized the way consumers engage with brands and make purchasing decisions.

Additionally, the emergence of social commerce represents another significant milestone in the evolution of e-commerce. Integrating social media platforms with e-commerce functionalities, social commerce harnesses the power of peer recommendations and social interactions to facilitate purchasing decisions. By blurring the lines between social networking and online shopping, social commerce has transformed social media platforms into vibrant marketplaces where consumers can discover, engage with, and purchase products seamlessly.

In summary, the evolution of e-commerce epitomizes a remarkable journey fuelled by technological innovation, changing consumer behaviours, and the relentless pursuit of convenience and efficiency. From its humble beginnings as a rudimentary electronic exchange system to its current status as an indispensable facet of

modern life, e-commerce continues to redefine the contours of commerce, ushering in an era of unprecedented connectivity, accessibility, and opportunity for consumers and businesses alike.

### **3. Advantages of E-commerce**

E-commerce offers several advantages over traditional business models, including:

**a. Global Reach:** Unlike brick-and-mortar stores constrained by geographical limitations, e-commerce enables businesses to reach a global audience, expanding their customer base exponentially.

**b. Cost Savings:** E-commerce eliminates the need for physical storefronts, reducing overhead costs associated with rent, utilities, and maintenance.

**c. Convenience:** With e-commerce, consumers can shop anytime, anywhere, from the comfort of their homes or on the go, leading to increased convenience and flexibility.

**d. Personalization:** E-commerce platforms leverage data analytics and artificial intelligence to personalize the shopping experience, offering tailored product recommendations and promotions based on individual preferences.

### **4. Challenges for Traditional Businesses**

Despite the numerous advantages of e-commerce, traditional businesses face several challenges in adapting to the digital landscape:

**a. Competition:** Traditional businesses must compete with online retailers offering lower prices, wider selections, and greater convenience, putting pressure on profit margins and market share.

**b. Digital Transformation:** Transitioning from a brick-and-mortar model to an e-commerce platform requires significant investment in technology, infrastructure, and employee training, posing challenges for traditional businesses with limited resources.

**c. Customer Experience:** E-commerce platforms often provide seamless and intuitive user experiences, raising the bar for customer expectations and forcing traditional businesses to enhance their online presence and service offerings.

**d. Security Concerns:** E-commerce transactions are susceptible to security breaches and cyber-attacks, undermining consumer trust and confidence in online shopping.

## 5. Impact on Consumer Behaviour

The rise of e-commerce has fundamentally changed consumer behavior, influencing how people shop, interact with brands, and make purchasing decisions:

**a. Shift to Online Shopping:** Increasingly, consumers prefer the convenience and accessibility of online shopping, favouring e-commerce platforms over traditional retail stores.

**b. Price Sensitivity:** E-commerce has intensified price competition, making consumers more price-sensitive and willing to compare prices across different online retailers.

**c. Omnichannel Experience:** Consumers expect a seamless omnichannel experience, with the ability to research products online, make purchases via mobile devices, and access customer support across multiple touchpoints.

**d. Social Influence:** Social media platforms play a significant role in shaping consumer preferences and driving purchasing decisions, with influencers and user-generated content influencing buying behaviour.

## 6. Strategies for Traditional Businesses

To remain competitive in the age of e-commerce, traditional businesses can adopt the following strategies:

**a. Embrace Digital Transformation:** Invest in upgrading technology infrastructure, implementing e-commerce platforms, and training employees to leverage digital tools effectively.

**b. Enhance Customer Experience:** Focus on delivering exceptional customer service, personalized recommendations, and seamless omnichannel experiences to differentiate from online competitors.

**c. Leverage Data Analytics:** Harness customer data and analytics to gain insights into consumer behaviour, preferences, and trends, enabling targeted marketing and product strategies.

**d. Innovate and Diversify:** Explore new business models, product offerings, and distribution channels to adapt to changing market dynamics and meet evolving consumer needs.

## 7. Case Studies

Several case studies illustrate the impact of e-commerce on traditional businesses:

**a. Walmart:** The retail giant has invested heavily in e-commerce initiatives, including acquisitions of online retailers like Jet.com and partnerships with tech companies to enhance its digital capabilities and compete with Amazon.

**b. Macy's:** The department store chain has implemented omnichannel strategies, such as buy online, pick up in-store (BOPIS) and mobile app integration, to integrate its online and offline channels and drive sales growth.

**c. Best Buy:** The electronics retailer has successfully transformed its business by embracing e-commerce, investing in online sales channels, and offering services like Geek Squad for technical support, demonstrating the importance of a strong digital presence in today's retail landscape.

## **8. Conclusion**

The conclusion highlights the ongoing disruption caused by e-commerce to traditional business models, emphasizing the need for traditional businesses to respond effectively to this dynamic environment. Here's an elaboration of each point:

**a. Disruption by E-commerce:** E-commerce has fundamentally changed the way business is conducted, challenging traditional brick-and-mortar models. This disruption is ongoing and multifaceted, impacting various aspects of traditional businesses such as sales, marketing, and customer engagement.

**b. Opportunities and Challenges:** E-commerce presents both opportunities and challenges for traditional businesses. On one hand, it offers the potential for expanded reach, increased efficiency, and new revenue streams. On the other hand, it introduces competition from online retailers, shifts in consumer behaviour, and the need for digital adaptation.

**c. Embracing Digital Transformation:** To thrive in the era of e-commerce, traditional businesses must embrace digital transformation. This involves adopting digital technologies, platforms, and processes to streamline operations, improve efficiency, and enhance competitiveness in the digital marketplace.

**d. Enhancing Customer Experience:** Central to success in e-commerce is the ability to deliver exceptional customer experiences. Traditional businesses need to prioritize customer satisfaction by

offering seamless online shopping experiences, personalized services, and responsive customer support across multiple channels.

**e. Leveraging Data Analytics:** Data analytics play a crucial role in e-commerce success. Traditional businesses can leverage data analytics to gain insights into customer preferences, behaviour patterns, and market trends. By harnessing data effectively, they can make informed decisions, optimize strategies, and drive business growth.

**f. Commitment to Innovation:** Staying competitive in the e-commerce landscape requires a commitment to innovation. Traditional businesses must continuously innovate and evolve their products, services, and business models to meet changing consumer demands, technological advancements, and market trends.

**g. Agility and Adaptability:** E-commerce is characterized by rapid changes and evolving consumer preferences. Traditional businesses need to be agile and adaptable, capable of responding quickly to market shifts, competitive threats, and emerging opportunities in the digital marketplace.

**h. Customer-Centric Approach:** Above all, success in e-commerce hinges on a customer-centric approach. Traditional businesses must prioritize the needs, preferences, and expectations of their customers, delivering value-added solutions and personalized experiences to build loyalty and drive repeat business.

In summary, while e-commerce presents challenges for traditional businesses, it also offers significant opportunities for growth and innovation. By embracing digital transformation, enhancing customer experience, and adopting a proactive and customer-centric approach, traditional businesses can not only survive but thrive in the era of e-commerce.

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**Chapter: 25**  
**Digital Banking in India**

**Mr. Suyog S. Manwatkar**

**Abstract**

Financial services are one of the most important sectors of any country. A strong well-regulated financial services Sector can be critical for the growth of the economy. In the global era Digital banking is giving comfortable services to customers. Digital banking is done through the digital platform, doing away with all the paperwork like cheques, pay-in-slips, Demand drafts and so on. It means availability of all booking activities online. Today's world is a world of technology and digitization. Technology is affecting every field and sector. The banking sector is also influenced by these technological changes. Many banks are providing a facility of digital banking now-a-days. Digital banking is also called internet banking or online banking. During the COVID pandemic, when people were confined to their houses owing to social distance, it was more obvious than ever how advantageous digital banking was. As more people became aware of the benefits of digital banking, the use of digital wallets, bank applications, and contactless and cashless payments became more and more common.

**Keywords:** Digital payment, Online Banking, phone wallets and UPI.

**Introduction:**

Banks have become an essential part of everyday life. The Indian government is currently working to create a cashless economy. Digital banking is quite significant in this process. In today's world, vegetable vendors utilize a QR code-based "scan and pay" facility. the milkman accepts wallet payments without hesitation, A man purchased any product on a credit card. Digital Banking is a popular way of doing business with a bank. With digital banking, you aren't required to visit a bank branch to complete most of your basic banking transactions. You can do all of this at your own convenience, wherever you want—at home, at work, or on the go. Online banking can be done using a browser or app. Mobile banking is online banking that is done on a phone or tablet. With digital banking, you don't need to visit a physical bank branch, but you can do it wherever you want—at home, work, or on the go. In addition,

you can typically do online banking 24/7. However, customer support might not be available at all hours.

"Digital India Mission" which is one of the major initiatives started by the Government of India aims to make the nation more technologically advanced. The government insists on being cashless, paperless, and faceless transactions in the economy. The crucial stages of a digital payment system are signing up, billing, choosing a payment method, and confirming a payment. The term "digital" describes the storing of data as digital signals. It can simplify banking operations. Digital banking streamlines and eases the transaction.

#### **Objective of the Study:**

- To study the need for digitization of the Banking sector in India.
- To study the role of digitization in Indian banking.
- To understand the challenges of digital banking.

#### **Data Collection:**

The data was gathered from secondary sources such as several research papers, banking websites data, RBI Bulletins and the Indian Banking structure.

#### **Need For Digitalization in the Indian Banking Sector:**

The Indian banking sector realized the need for computerization in the late 1980s to improve customer service, book-keeping, and record-keeping. In 1988, the Reserve Bank of India formed a committee chaired by Dr. C. Rangarajan to investigate computerization in banks. The computerization trend increased during the Indian economy's reformation from 1991 to 1992. One of the main causes of this development was the growing involvement of private and foreign banks in the banking industry. To stay competitive and relevant in the race, several commercial banks started to transition towards digital service delivery. The introduction of MICR-based cheque processing, electronic fund transfers, branch interconnection, and ATM adoption have made banking time more convenient for commercial banks in India. Many were forced to use mobile banking or digital payment during the demonetization era due to a lack of cash, which appeared to be a better option for them. The Indian government is currently heavily promoting digital payments. The National Payments Corporation of India introduced United

Payments Interface (UPI) and Bharat Interface for Money, which are the two essential components of the payment system. Customers can send money between accounts at several banks utilizing the UPI mobile platform by using a virtual address rather than their actual bank account numbers.

### **Role of Digitization in Indian Banking**

Service quality has improved. Banks and customers save costs and time by using ATMs and other cashless transactions. Customer experiences have improved. With more digital data at their disposal, banks may use digital analytics to make data-driven dynamic decisions. Technology is non-discriminatory in its application. At banks, everyone will be treated equally. Because of the improved banking services, the number of consumers will increase for banks. Human mistakes are reduced because of digitalization. Customers were able to conduct financial transactions and view their accounts from any of the partner banks' branches using CORE banking. Customers could manage bank accounts more easily, which gradually inspired the term "**Anytime, Anywhere Banking**". Eventually automated teller machines (ATMs) were on the scene, making it feasible to conduct electronic transactions of funds. The need to handle significant amounts of money will be eliminated. Make things easier to store and retrieve data. Digitalization can potentially change the paradigm of financial inclusion and drastically shift the paradigm of financial inclusion. Digital banking's ease of use can advance the unbanked economy's absorption into the mainstream. However, the socio-economic situation in India emphasizes the need for digitalization. With such a high percentage of crime and corruption, digitalization is a secure way to conduct business. Reduce the workload and save the time of banks employees.

### **Challenges of Digital Banking**

#### **1. Security**

This is one of the first things that comes into one's mind when keeping money is mentioned anywhere. It is, however, sad to say that hackers are still giving financial institutions a run for their money. Therefore, some customers are not willing to take any chances. Note that banking security is nothing like downloading and installing an antivirus.

## **2. Fully digitized bank, brick, and mortar or both**

Although many people are embracing digital banking, there is still a good portion of people who don't trust it. Also, some people are not convinced about digital banking unless they have proof that a bank exists in brick-and-mortar form. This makes it hard for digital banking to become completely digitized.

## **3. The non-financial institution already filling the space**

Several non-financial institutions offer services very similar to what digital banking is expected today. Social media platforms like Facebook, WhatsApp for example, have made it possible for users to send money directly to someone's bank account. Because they are not restricted by any rules as seen with financial institutions, it is hard for these financial institutions to cope. To begin with, social media platforms.

## **4. Internal barriers**

For banking to be fully digitized, it means that they banking system and employees will have to undergo a cultural shift. However, it is good to know that unlike other businesses, banks have a unique way of departmentalization, and this greatly influences the level of technology to be used. While some departments will benefit from a digital banking system, some departments will have to lay off some employees. Also, employee training may be required.

## **5. To buy or build the banking system**

With the demand for digital banking on the high, some banks are desperate to take the leap and adopt digital banking. However, most banks are not quickly adopting digital banking because they don't know which kind of system will work correctly. Some prefer purchasing such systems because they want to work with a system that has been tested. Others prefer having a system built specifically for them. Don't forget that both kinds of systems have their pros and cons.

## **Opportunities in Digital Banking**

Despite these challenges, digital banking also opens a variety of opportunities, both for quality of service and the potential for profit.

### **Partnerships**

Banks are increasingly partnering with third-party apps and fintech companies. This is a mutually beneficial arrangement: it

gives your customers flexible money management and improves the user experience, without the bank having to overhaul its entire system. It also gives the startups stability and an opportunity to gain new customers. Partnerships of this kind can also help you engage with the potentially lucrative cryptocurrency market, which will be seen as a major benefit to some patrons.

### **Enhanced Services**

The access provided by digital banking allows you to connect to your customers in new ways. This not only provides an enhanced guest experience; it also opens up a new profit area for banks. For example, the process of taking out a loan or opening a new line of credit can be intimidating for many people. By offering information on assorted options on your website and giving your customers a way to apply online, you'll be able to help them find the solution that works best for them, in the comfort of their home.

### **New Customers**

Digital and mobile banking is now an expectation for most people, and especially for younger people who may be opening their first account. Attracting these new customers now depends on offering a smooth and user-friendly banking experience on your app and website, just as would happen in traditional banks. In addition to attracting new users, your digital banking system can help you gather data on new trends, which can help you predict new trends and advancements in the banking sector and the economy.

### **Conclusion:**

Digital banking has a substantial market share. With technological innovation, the financial sector is changing. Every consumer now accepts digital banking for their convenience. Yet, some faults occur because of this advancement. As a result, there are some technological concerns that affect customer impression. Digital banking is transforming traditional banks into larger and more efficient places of business. Customers' transactions are made easier. People can simply pay their bills, move money from one place to another, and check their bank details. The expansion of digital banking in India can help with a variety of challenges, including the expansion of the capital market, the expansion of the insurance industry, and the expansion of the venture capital market. With the increasing use of smart-phones, digitization of the banking sector is

unavoidable to meet the world's growing demands. It did, in fact, reduce human errors and improve convenience. Most businesses no longer must rely on the bank's operating hours because of digital banking. Transactions can now be completed even during odd hours. Certain transactions, such as bill payment or recurring payments, can be automated on the digital banking platform. As a result, firms can save a significant amount of time on manual operations, which has a significant influence on productivity. The convenience of 'Anywhere Banking' has boosted the number of customers. Human mistakes have been decreased via digitization. Digital banking is transforming traditional banks into more environmentally friendly and efficient centers of business.

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**Chapter: 26**  
**A Study of Digital Marketing**

**Ms. Sarita Baburao Kadam (Dimble)**

**Abstract**

This research paper describe a framework in digital marketing that highlights the strategies in the marketing process as well as the effectiveness of the marketing process and impact of different technological tools and social media platforms. Using the framework we have organized the research methods about the elements an review the research literature in the broadly defines digital marketing space. Digital marketing is the marketing of goods and services by using digital technologies with the increase in the penetration of internet in india digital marketing has become one of the best way for the advertiser/marketers to market their products and services and customer also linking the various elements of digital marketing because of the various advantages of digital technology.

**Keyword** : Digital, Marketing, Digital marketing, Digital Technology.

**Introduction**

Over time the phrase “Digital Marketing” has developed from a particular term that describe the marketing of goods and services using Digital platforms to a generic term that describes the method of incorporating Digital Technology to attract customers and create consumer habits, support brands, maintain customer and improve revenue. Hence, digital marketing can be described as an agile. Technology enabled framework by which companies work together with consumers and partners to develop, connect, generate and retain value for all stakeholders.

Digital Marketing is the use of media devices such as mobile phones, computers and other devices to reach consumer through social media, websites. Search engines, applications and other methods. Digital Marketing has tremendous potential. One of the key goals of digital marketing is to identify how consumers use emerging technology and incorporate this insight for the advantage of the organization enabling the user to communicate more efficiently the user to communicate more efficiently with their

potential customers. It is also possible to boost brand value, attract new buyers and improve sales using digital marketing. Digital marketing can be online or offline. Digital marketing is the new era of marketing that started with the launch of the internet 1.0 in 1990. Internet marketing is defined as the use of digital technologies to achieve marketing objectives. Digital Media Marketing is a powerful tool used by organization and marketing managers to attract consumers and build brands to succeed.

### **Evolution of Digital Marketing**

The below figure shows the evolution and history of digital marketing.

#### **Objective of Study**

The study aims to advance comprehensive framework related with the past archives and methodologies of digital marketing. Research explores and analyze the difference approaches adopted by researches intended to contribute knowledge in the field.

- To study the various elements of Digital Marketing.
- To examine the relationship of Digital Marketing.
- To find out the most important elements for increase in sales among those which are taken for study.

#### **Research Methodology**

- **Primary Source**

Primary sources is a sources from where we collect first-hand information or original data on a topic.

- **Secondary Source**

Secondary source is a sources from where we collect data has already been collected by someone. We have collected secondary data from the published reports, media reports, statements of the firms, newspaper and articles. For the purpose of this study, seventy firms/companies were selected randomly which are using Digital marketing system to sell their products to customer form NCR.

#### **Various Components of Digital Marketing**

In today's Digital world, understanding the components of online marketing is crucial for achieving online success. By exploring the various types of online advertising and identifying the key components of digital marketing, business can effectively



navigate the online realm. In this comprehensive guide, we will delve deep into each component, uncovering their significance and exploring how they contribute to unlocking online success.

### **1. Content Marketing – Captivate and Connect.**

Content marketing serves as one of the main components of Digital Marketing, It involves creating and sharing valuable, relevant and compelling content to captivate and connect with your targets audience. Through blog posts, videos, infographics, podcasts, and social media updates, content marketing helps build brand awareness, establish thought leaderships with your audience.

To excel in content marketing. It's essential to understand the key components of digital marketing strategy. By identifying the main components to digital marketing, business can craft a content marketing strategy that aligns with their overall objectives. By consistently delivering valuable and engaging content you can position yourself as an authoritative source in your industry and build trust with your audience.

### **2. Social Media – Engage and Amplify.**

Social Media is another vital component of digital marketing, it offers a powerful platforms for engagement, brand promotion and community, building platforms. Such as Facebook, Twitter, Instagram, LinkedIn and YouTube allow business to showcase their products or services, engage directly with customers and amplify their brand messages to a wider audience.

To leverage social media effectively. It's important to understand the different types of online advertising and how they apply to social media platforms. By incorporating social media into your digital marketing strategy, you can engage with your audience, promote your content and drive traffic to your website. By nurturing a strong social media presence you can faster brand loyalty, increase brand visibility and achieve online success.

### **3. Digital Advertising – Target and Convert.**

Digital advertising is one of the key components of online marketing. It encompasses Various channels including search engines, social media platforms, display networks and E-mail marketing. It enables businesses to target their audience precisely and deliver personalized messages. Through pay-per-click (PPC) advertising. Display ads, and remarketing campaigns, digital

advertising derives traffic, boosts conversions, and enhances brand visibility.

To maximize the effectiveness of digital advertising, It's important to understand the types Of online advertising available. By incorporating different types of digital advertising into your target audience effectively. Continuously monitor and optimize your campaigns to ensure maximum return or investment (ROI) and achiever your resized outcomes.

#### **4. Search Engine optimization – Rise and Rank.**

Search Engine optimization (SEO) is a crucial components of digital marketing. By optimizing your website, you can improve It's visibility and rankings in search engine results pages (SERPs). A strong SEO strategy ensures that your websites is discoverable, visible and relevant to search engines and users alike.

To understand the key components of digital marketing, businesses must recognize the importance of SEO. By implementing SEO best practices, you can enhance your website's visibility and attract organic traffic. Keyword research, on-page optimization technical optimization and link building are essential components of SEO. By incorporating these components into your digital marketing strategy, you can improve your websites rankings & drive organic traffic.

#### **5. Data analytics – analyze and Optimize.**

Data analytics is an integral part of digital marketing strategy. By leveraging data business gain valuable insights into customer behavior, preferences and trends. Analyzing data allows you to make informed decision, identify areas of improvement, and optimize your marketing strategies for better results.

Data analytics plays a significant role in understanding the components of digital marketing strategy. By utilizing tools such as google analytics, you can track key performance indicators (KPI) and analyze the effectiveness of your marketing efforts. By using data to drive your marketing decisions, you can continuously refine your strategies, allocate resources effectively and achieve better ROI.

#### **Comparison between Tradition and Digital Marketing**

Traditional marketing is the most recognizable form of marketing. Most people are used to traditional marketing due to its

longevity. Some examples of traditional marketing include tangible items like ads in newspaper or magazines. It also includes a bill board, brochure, commercial on TV or radio, poster etc. It is a non-digital way of marketing. Whereas digital marketing uses various digital channels to reach customers. Some comparisons are given below.

<b>TRADITIONAL MARKETING</b>	<b>DIGITAL MARKETING</b>
Traditional marketing refers to the marketing that uses traditional channels or media. For the purpose of marketing communication.	Digital marketing implies the marketing of products and services via digital channels, such as the internet, smartphones, display ads, and other digital medium.
Static	Dynamic
Slow	Comparatively fast
Low	Comparatively high
Cannot be measured easily	Can be measured easily
Less effective more expensive	Last experience more effective
Not possible	Possible
Standardized	Customized
Not possible once the ad is placed.	Can be performed anytime, even after the ad is placed.
Local	Global

### **Digital Technologies**

The above structure describes central themes of communication in the marketing process and techniques. Where emerging digital technology will continue to have a tremendous influence. It includes not only the specific components, but also the configurations between those components. The system also emphasizes the focus on clarifying roles and responsibilities in digital media that can have an internal or external effect on the organization. These digital technologies result in improvement of customer and firm value.

The use of digital media platforms in marketing has accelerated, allowing for greater engagement with customers in order to gain information and feedback from the customer and to extend the target market.

## **Power of internet/ digitization**

The internet is most powerful tool in the emerging globalization. It is evident from the examples these companies have understood the power of Internet/Digitization long back and how they are the biggest users of Internet.

### **Conclusion**

Individuals are investing more in online content and companies that find it hard to digest this fact in their advertising strategy need to adjust quickly. The more time individuals spend on the internet every year. The more digital platforms they use play an ever developing function in their lives. The main aim of Digital India is to promote digital medium. Because people can use digital platform any time anywhere from the world companies need to change their marketing strategy from traditional to digital.

To summarize, digital marketing has bright future for long term sustainability of the product or services in the current technological market with all its pros and cons.

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**Chapter: 27**  
**UPI – Digital India**

**Dr. Pawale Vasant Anandrao**

**Abstract**

United Payment Interface (UPI) in India as a unified payment solution to automate and standardize the country's various payment platforms. The National Payment Corporation of India (NPCI) developed and improve the customer experience. UPI allows users to easily and securely transfer funds between bank accounts and make merchant payment using various identifiers.

**Keywords :** United Payment Interface (UPI), Digital payment.

**Introduction**

In 2015, a call was given for a 'Digital India'. Enabling technology to reach millions of lives all over the country. The movement, which transformed the economic landscape of India is attributed with the success of various start-ups and business that forayed into the Indian market with a number of innovative products and services.

Digital India movement is also one of the primary boosters for the 'Digital Payment' arena that saw the risk of numerous 'Digital Payment' apps. Paytm is considered the pioneer in Digital Payments in India. Then came free recharge, phone pe and various other apps that allowed consumers to use these apps and make payments at a number of merchant establishments and online shopping sites.

The advantage of using these apps was that it allowed users to link multiple credit and debit cards under a single umbrella. They also gave attractive offers and discounts for using their apps. Consecutively, the idea of making payment directly from your bank account, without the need to carry debit cards, was seen as lucrative market. Thus came into existence UPI- United Payment Interface. UPI is now one of the most preferred payment solution in India, with over a billion transactions every month. It is user-friendly, real-time payment solution that the facilitates Inter-Bank transactions and enables greater digital payment adoption in the country. Its core function is to support easy and secure money transfers between bank account.

## **What is United Interface payment(UPI) ?**

UPI stands for united payment interface (UPI). It enable money to be immediately transferred via your Smartphone from one bank account to another. Payments can be rendered via supporting mobile phone apps. The cash transactions through UPI are available 24\*7. Eventually, to streamline the digital payment market within the country, NPCI (National Payment Corporation of India) was established.

United Payment Interface (UPI) is a portal developed by the National Payment Corporation of India (NPCI) to facilitate inter operability between banks. This is one stop solution for using separate bank accounts to carry out transfers from a single apps. It allows all account holders to send and receive money through their Smartphone with a single identifier. The virtual payment address (VPA) commonly knows as the UPI ID – without needing any bank account information. Customers often do not need to know the IFSC code of the beneficiary or payer bank account details, etc. and customers will make quicker transactions to their friends and merchants.

In view of all the above, NPCI conducted a pilot launch with 21 member banks. Dr. Raghuram G Rajan, governor of RBI in Mumbai, launched the pilot on 11<sup>th</sup> April 2016, banks began uploading their UPI powered apps to the google play store on august 25,2016.UPI currently has around 100 banks and more than 20 third party payment partners that offer UPI payment facility to their users.

### **Why UPI**

UPI is a unique payment product that allows real time-settlement of funds between two bank accounts. The foremost advantage of using UPI is that it removes the need for remembering your bank account details while doing a fund transfer and the receiver to transfer funds instantly. Here are some of the salient features of UPI-

- Immediately money transfer via mobile device 24\*7 days and 365 days.
- One mobile application for access to different bank accounts.
- Single click 2 factor authentication –

Compliant with the regulatory guidelines, but offers a very strong features of convenient single click payment.

- VPA for full & push offers enhanced protection also with the customer not expected to enter information such as card no., account number, IFSC etc.
- Bill sharing with your friends.
- Proper approach to cash on delivery hassle, race to ATM, giving the exact amt.
- Enable payment at your merchant establishment through a single app or in app payments.
- One stop shop for your utility bill payments counter payments barcode (scan & pay related payments) use this feature for all your need like donations, collections, and scalable disbursement.
- Allow you to noise complaint directly form the mobile app.

**Conclusion:-**

UPI was launched by the National Payments Corporation of India (NPCI) in 2016 and has rapidly gained momentum and revolutionized how Indians conduct transactions. At present there are more than 300 million UPI users and 500 million merchants who use UPI to accept money for their business. Common persons also using UPI for their daily transactions on a big scale So UPI has emerged as a game changer in India’s quest for adigital future. By enabling seamless, secure, and inclusive transactions, UPI has transformed the way Indians transact, empowering millions and driving economic growth. UPI has revolutionized India’s Payment sector and is becoming more accessible to non – resident Indian’s in several nations.

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## Chapter: 28

# Harmonizing Commerce: Exploring the Influence of Vocal Attraction in Voice-Enabled Devices

**Dr. Bharti  
Pooja Yadav  
Arjun Singh Yadav**

### Abstract

Voice commerce, a growing trend in the retail industry, has the potential to revolutionize the way consumers shop. Voice commerce has gained significant attention in the retail industry due to its potential to transform the shopping experience for consumers. This paper aims to explore the implications of attraction and voice commerce on retail through a theoretical analysis. By analysing the psychological factors that drive consumer attraction and the behavioral changes associated with voice commerce, this study seeks to give information on how retailers can influence this technology to increase the overall experience of shopping. The study draws on the anthropomorphism literature and parasocial interaction theory to investigate the unique relationship between consumers and artificial intelligence-powered voice assistants. Using a theoretical approach, this paper examines how shopping through voice assistants is influenced. The results show that consumers may view voice assistants as pseudo-human agents detached from the service provider while perceiving websites as tools or interfaces used by the provider. These results highlight the benefits of understanding the psychological factors that have the power to impact consumer behavior in voice commerce. The study also suggests that increasing the perceived human likeness of voice assistants can strengthen the relationship between consumers and these devices.

**Keywords:** Voice Commerce, Voice assistants, Attraction, Parasocial interaction.

### 1. Understanding Voice Commerce: An Overview

Consumer interaction with technology has progressed recently it has been noticeable that there exist tremendous advancements in technology and also in the method of how users interact with the technology. Voice commerce, among all others, sees continuous



bringing in a new form of intermingling between consumers and technology (Sun et al., 2019).

Voice commerce is defined as using voice-activated devices or voice assistants to do shopping transactions like buying goods or asking or instructing for information (Canziani & MacSween, 2021). The developmental phase of voice technology by Amazon's virtual assistant Alexa, Apple's Siri, and Google Assistant generates new means for consumers to utilise their voices in shopping and interacting with brands. Consumers nowadays feel more inclined to accept voice technology into their decision-making life, which has triggered a growing interest in examining the effects of voice commerce on their buying processes. Not only this, but it is important for businesses to be aware of the difficulties and the possibilities that this technology can provide. This article will address head-on the role of voice commerce in consumer behavior including its effects on purchasing patterns as well as the appeal of this retailing concept.

## **2. The Role of Attraction in Voice-Enabled Shopping**

Voice commerce attraction's principle moves beyond just the 'look at the visual appeal of the product' or interface. On one hand, it focuses on the psychological part of consumers' feelings when they shop by voice (Han, 2021; Qiu & Benbasat, 2009; Wang et al., 2007).

Fundamentally, the idea of attraction is signified by a wide spectrum of factors which combine to generate the ultimate attractiveness in voice-based shopping. This could entail how the virtual assistant communicates and how the interaction is happening. Other things around the shopping experience that, will make it closely related to the customer's temperament and behavior should be considered (Poushneh, 2021; Rhee & Choi, 2020; Wang et al., 2007).

The discovered results have shown that when customers feel a certain attachment to the voice commerce experience, then they will probably pay attention to it, get satisfaction and be prepared to buy from it. This emotional bond may be nurtured by some factors, such as personalized recommendations and a user interface that is responsive to users and intuitive (Poushneh, 2021; Balakrishnan & Dwivedi, 2021; Whang & Im, 2020; Qiu & Benbasat, 2009).

However, beyond this, there is always the element of dicy attraction. This ignites the development of trust and patronage. Once consumers get hooked on voice-enabled shopping, they tend to be more committed to the products or platforms, showing loyalty to the brand or platform (Tassiello et al., 2021). It could mean growing the customer base, by repeat purchases, appropriate social media promotion, and a higher average spending by the individual consumer (Ortega & Ferreira, 2021; Mishra & Shukla, 2020).

To make the most of the psychological effect of voice attraction in voice-enabled shopping, businesses must give prominence to the creation of a fascinating and emotionally touching experience for customers (Bawack et al., 2021; Ortega & Ferreira, 2021; Mishra & Shukla, 2020). For instance, with respect to building preferences, involve exploring different channels, whereby certain things such as keen use of persuasive language, empathic responses, and the successful integration of personalized data and advice can be incorporated (Yu et al. 2022, Tassiello et al., 2021).

### **3. Consumer Attractiveness Factors**

Analyzing the aspects aiding the adoption of voice commerce by consumers is one of the most significant things for the companies. Issues like convenience, personalised advice and integration with other devices are the major factors that shape consumers' attitudes toward this way of shopping (Bohm et al., 2022).

#### **3.1. Anthropomorphism in Voice Commerce**

The concept of anthropomorphising as the attribution of human-like features to non-living entities has a significant influence on consumer interactions with voice technology. When virtual assistants show a human-like nature in their interactions with users, they can not only improve the users' experience but also make voice commerce more appealing. Consumers could find it more pleasurable and engaging if they encounter a virtual assistant who demonstrates empathy, understanding, and personality (Poushneh, 2021; Araujo, 2018).

As the industry of voice commerce is growing, the anthropomorphism integration gives ground for commercial entities to explore. Through the implementation of virtual assistants with human-like qualities (Poushneh, 2021; Qiu & Benbasat, 2009),

businesses can build stronger and more genuine relationships with consumers. This might result in a higher degree of consumer trust and loyalty.

Hence, businesses should recognize the importance of anthropomorphism in creating the consumer experiences of the voice commerce system. With the advancement of technology, the use of anthropomorphism as a tool for increasing visual appeal and consumers' happiness is becoming a reality. This is concerned with issues like voice tone, language style and even characters of virtual assistants (Poushneh, 2021; YeBeet, 2020; Keeling et al., 2010). Beyond anthropomorphism, there is another important factor in the question of voice commerce and attraction, which is the notion of parasocial interaction (Whang & Im, 2020).

### **3.2. Parasocial Interaction in Voice Commerce**

With voice commerce, virtual assistants become the level of interaction between the user and the technology. Consumers are exposed to these virtual beings on a continuous basis, thereby leading to their development of emotional attachments and trust, which are similar to bonds with media personalities. The emotional link between consumers and voice commerce is so strong that it affects the way consumers think and behave; thus, the relationship has the potential to influence the attitudes and behaviors of consumers (Poushneh, 2021; Han, 2020; Whang & Im, 2020; Qiu & Benbasat, 2009).

Studies have found that using parasocial interaction in voice commerce is possible to increase loyalty and brand affinity. Virtual assistants that are interactive, credible, and develop pseudo-social relationships with users can be created by businesses to increase the charm and effectiveness of voice commerce (Whang & Im, 2020; Qiu & Benbasat, 2009).

In terms of businesses adapting to the dynamic nature of voice commerce, knowing the impact of parasocial interaction and using it purposefully in the design and communication strategies of virtual assistants could be an outstanding instrument for improving relationships with customers and producing positive outcomes.

#### **4. Exploring the Influence of Voice Appeal in Marketing**

Marketers achieve the goal of voice appeal by using language that is similar to consumers and conveys a feeling of authenticity and credibility (Agrawal et al., 2020; Yuan & Dennis, 2019).

Also, empathy-based responses have a leading role in building a bond and a connection with customers in the voice-assisted marketing field (Tassiello et al., 2021; Qiu & Benbasat, 2009). A significant outcome will be the creation of a bond of trust and connection (Hoyer et al., 2020; Chérif & Lemoine, 2018; Qiu & Benbasat, 2009).

##### **4.1. Implications of Voice Attraction for Retailers and Marketers**

The underlying concepts of the observed motivational factors in voice commerce hold great relevance for those in retail and marketing looking to extract the full benefits of voice-enabled interactions (Chung & Cho, 2017).

- Humanize the given sentence. By adding an emotionally engaging voice to the voice commerce strategies of businesses, they can improve the appeal of their voice commerce strategies and strengthen the relationship with their target audience (Bawack et al., 2021; Rhee & Choi, 2020).
- The use of consumer data and preferences by retailers and marketers is aimed towards offering personalized, exclusive interactions that connect with individuals on a deeper level, thus increasing engagement and customer loyalty, and, consequently, positive brand perception in a voice commerce environment (Mari et al., 2020; Qiu & Benbasat, 2009).
- The voice commerce ecosystem can benefit from the retailers and marketers being ethical through the implementation of transparency, consent, and data privacy which will not only uphold ethical standards but also build the consumer's confidence and credibility hence strengthening the brand reputation in the voice commerce ecosystem (Huh et al., 2022; Ostrowski et al., 2021; Qiu & Benbasat, 2009).
- By recognizing the influence of parasocial interactions, businesses can develop voice-enabled marketing strategies that are not only emotional but also have a long-term effect, creating

loyal customers and leading to good consumer behavior (Tassiello et al., 2021; Miao et al., 2021; Mari et al., 2020).

- Manufacturing and marketing systems can feed on these insights to create voice commerce experiences that are vivid and have emotional impacts. This will result in an optimal appeal and effectiveness of the manufacturer's voice-enabled strategies (Tassiello et al., 2021; Miao et al., 2021; Qiu & Benbasat, 2009).

## **5. Conclusion**

As more retailers and marketers get into voice commerce and the reality of voice coming together, they will be well-placed to guide the process of defining the shape of the future commerce landscape. The role of businesses in providing consumers with new opportunities to redefine their engagement and loyalty through voice-enabled interactions, while at the same time having them on the cutting edge of innovation, cannot be underestimated, as it will lead to sustained success under the dynamic conditions of retail markets. The link between the attraction factor and voice commerce is a multidimensional and complicated relationship. The dependency between the attraction and the voice commerce is manifold and holds a great future for the beginning of the shopping experience.

Through leveraging technological innovations, implementing flexible personalization, improving ethical practices, cultivating true interactions, and developing strategic integration, retailers and marketers can create powerful voice commerce experiences that are truly exceptional in a highly competitive environment. The harnessing of these implications is, not only, a guarantee of increased consumer satisfaction, but also a step towards the attainment of sustained success in the realm of voice-operated commerce.

To sum up, the future of shopping and Voice commerce are inseparable entities as a result of the evolution of voice commerce. By a flawless combination of convenience and personalization, through the inclusion of augmented reality, observance of ethical AI practices, and adoption of adaptive content to suit conversational commerce, retailers and marketers can occupy the leading position concerning innovation and thus create meaningful connections and influencing the future retail landscape.

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**Chapter: 29**  
**Quality Assurance in Future Trends of Indian Business**  
**Scenerio: Innovation, Sustainability, Technology And**  
**Growth W. R. T G20**

**Dr. Priya Satsangi**  
**Reshma Shaji**  
**Saima Hasan**  
**Megha Sawardekar**

**Abstract**

G20 have been playing an important role in the sustainability and development of global business environment. It was year of recession and major financial crises when G20 started in 2007 and 2008. This summit exaggerated an impressive degree of solidarity Galvanised by the shock of global financial crises.

This paper focuses on the transformation of Indian business in terms of innovation, sustainability, technology, and growth and it is critical to examine the future trends shaping the business landscape.

Our research findings shed light on critical areas that require immediate attention, such as creating an enabling environment for entrepreneurship, leveraging the potential of renewable energy and skilled artisans, and encouraging entrepreneurship education among young people. The study also emphasized the importance of attracting global tech companies, promoting academic collaborations, and implementing eco-friendly manufacturing practices to drive long-term growth.

As India takes over the prestigious G20 presidency, this report aims to provide a comprehensive analysis of primary research data, offering valuable insights and actionable recommendations.

**Keywords:**

G20, Financial crisis, Innovation, Sustainability, technology,

**Introduction:**

The Group of Twenty (G20) is an international forum which was established in the year 1999 in reaction to the financial crisis which happened in India.

The G20 takes up the presidency model. The G20 presidency is alternated annually among the member countries. The head of that country's government, whether it be the president or the prime

minister, will lead the G20 for a year. Additionally, the host country also has the authority and power to invite certain non-member nations in the summit.

The 18th G20 summit was hosted by India in New Delhi from September 9<sup>th</sup> to September 10<sup>th</sup> 2023, it was identified as an important turning point for the India. This was labelled as India's first time as a host country. The main theme for the 18<sup>th</sup> summit was "One Earth, One Family, One Future". Under India's presidency, a new member was incorporated in the forum, which was African Union.

The recent summit successfully attracted attention towards the urgent problems like global health, sustainable development goals (SDGs) along with the climate actions. The topics of conversation included enhancing global co-operation and finding ways to collaborate. India most likely conducted bilateral meetings with certain G20 countries where free trade agreements were already being negotiated. For example, the 13th round of talks for the India-UK free trade agreement.

Thus, the G20's emphasis on the Sustainable Development Goals (SDGs) can be very helpful in promoting and encouraging sustainable business practices. In order to ensure that every nation has equal access to the benefits of technology, the G20 can also help advance digital accessibility. Therefore, by addressing global issues and promoting responsible economic growth, The G20 can have a significant impact on shaping the course of a future in which business and society can prosper together.

#### **Literature Review:**

**Ahmad Raza, Yasir Habib and Shujahat Haider Hashmi, (2023)** summarized that relationship between institutional qualities in G20 countries from 1990 to 2021 and the ecological footprint, technological innovation, and consumption of renewable energy is the subject of the author's research paper. It also suggests that innovation in technology and renewable energy have a negative but noticeable effect on the ecological footprint. In the G20, institutional characteristics have a negative effect on the relationship between technological innovation and renewable energy, while economic growth and foreign direct investments have a beneficial effect on the ecological impact.



**M. Larionova, (2023) summarized** that the concerns about the possible impact of the wave of the digital industrial revolution on wages and employment. Conversely, some argue that these advancements diminish the value of human capital and emphasize the need to focus on the complementary relationship between developing technologies and human capabilities. Additionally, it suggested that the G20 back a sound plan to leverage digital innovation to expand public opportunities and the job market. The papers and articles emphasize how important it is to address the opportunities and challenges presented by digitalization in order to help employees transition smoothly and to make the most of these developments for the good of society.

**Marco Annunziata and Hendrik Bourgeois, (2018) summarized** that G20 meeting and its interactions with foreign organizations. The G20 is an informal club, just like its forerunners, the BRICS (founded in 2009) and the G7 (founded in 1975). The author goes on to say that the G20 interacts through a mix of “catalyst,” “core group,” and “parallel treatment” strategies, depending on the policy domain and the preliminary agenda. The G20 maintains strong ties with important institutions such as the World Bank and the International Monetary Fund (IMF), among others. In the G20’s discussions, the United Nations (UN) is ranked seventh place, depending on the volume and percentage.

**Ajoy K Sarangil, Rudra P. Pradhan, Tamal Nath, Rana P. Maradana and Hiranmoy Roy, (2022) summarized** that long-term development is mostly driven by innovation, economists and policymakers have made great strides in predicting economic growth and comprehending growth mechanisms. There are two valid reasons for the necessity of innovation in economic growth that have been extensively debated. 1) The creation of new technologies, methods, and procedures that raise economic efficiency and 2) Production depends heavily on innovation. It is essential for the creation of goods and services with added value and for launching new revenue streams. As the globe emerges from the consequences of global economic crises, innovation is essential to individual economies, the global economy, and regions.

**Ortega andres, Perez, Francisco Andres, Turianskyi, Yarik, (2018) summarized** those Technological innovations like

digitization, automation, 3D printing, and artificial intelligence are opening up a lot of new development possibilities. Africa's growth depends heavily on mobile connectivity, as seen by "mpesa" in Kenya and Tanzania. But these developments may also bring forth new injustices and upheavals inside and across societies. Even with these improvements, 53% of people on the planet do not have access to the internet, and by 2020, that number will exceed 3 billion. Technology and society have a dialectic connection in which it is both a problem and a solution that exacerbates social inequality.

**Tarun M Goyal and Prateek Kukreja, (2023) Summarized** that the G20's assistance in helping its member nations achieve their sustainable development objectives. It examines the G20's history of priorities, and the member nations' current state of progress toward the UN Sustainable Development Goals (SDGs). India is the least progressed G20 nation, with all of them seeming to be lagging behind the SDG targets. Additionally, the financial crisis-inspired initial G20 summits placed a high priority on global expansion and economic recovery. President George W. Bush called for the 2008 Washington Summit, which committed to ending hunger while addressing financial market concerns and international health emergencies.

### **Objectives:**

1. To develop the new horizons in the business trends of India.
2. To diversify the technologies with the upcoming trends in business in India.
3. To identify various measures taken in G20 summit for the sustainability and growth in India

### **Research Methodology:**

#### **Research Design:**

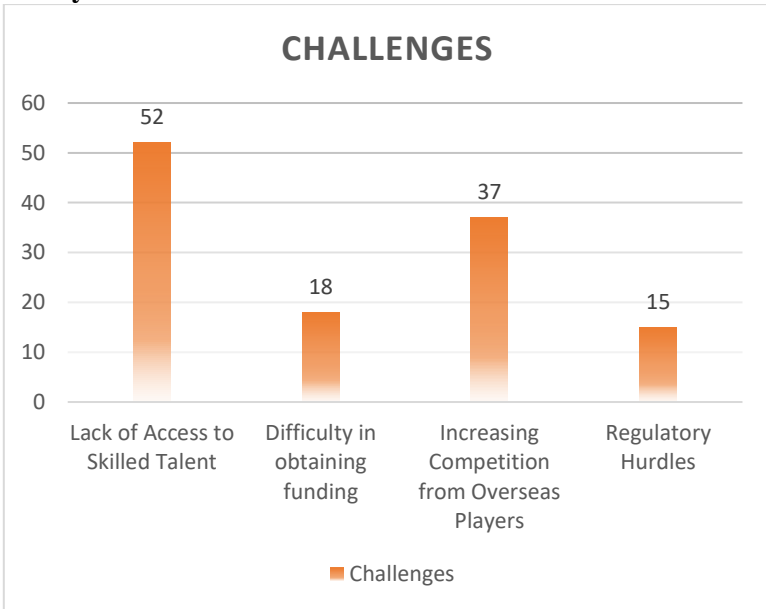
1. "Future trends in business: innovation, sustainability, technology, and growth w.r.t G20" was the theme of a primary survey that was carried out.
2. The survey was conducted using the questionnaire method, and each question was closed-ended.
3. A total of twelve questions were asked.
4. This study has a sample size of about 122 replies.
5. Everyone who took part in our survey, from engineers to students, provided these responses.

**Data collection method:**

Standardized questionnaires were distributed to participants in order to gather data. We were able to collect data and information from a diverse population by using this questionnaire.

**Research Analysis:**

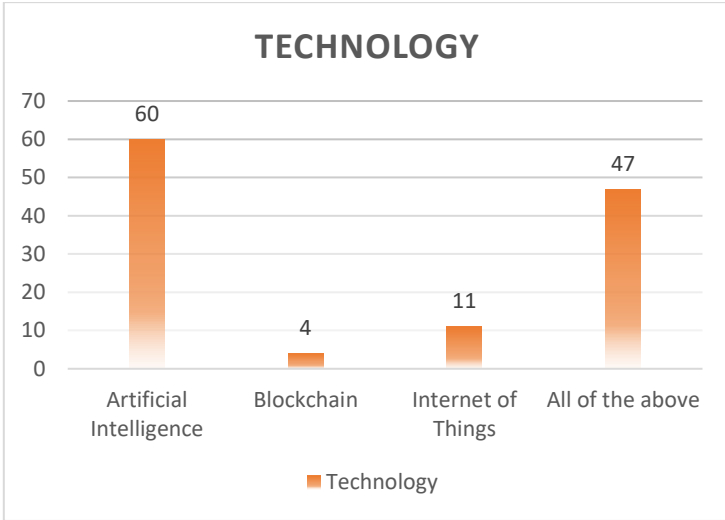
**Q1. Which of the following is the biggest challenge currently faced by most of the industries in India?**



<b>CHALLENGES</b>	<b>RESPONSES</b>	<b>PERCENTAGES</b>
Lack of Access to Skilled Talent	52	42.6
Difficulty in obtaining funding	18	14.8
Increasing Competition from Overseas Players	37	30.3
Regulatory Hurdles	15	12.3

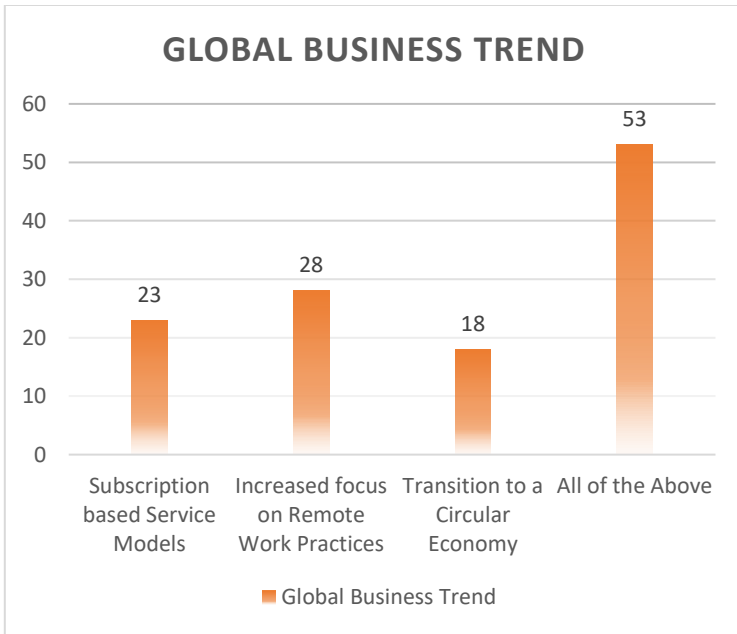
**Q2. In your opinion, which technology will have the most significant impact on Indian businesses in the next 5 years?**

TECHNOLOGY	RESPONSES	PERCENTAGE
Artificial Intelligence	60	49.2
Blockchain	4	3.3
Internet of Things	11	9
All of the Above	47	38.5

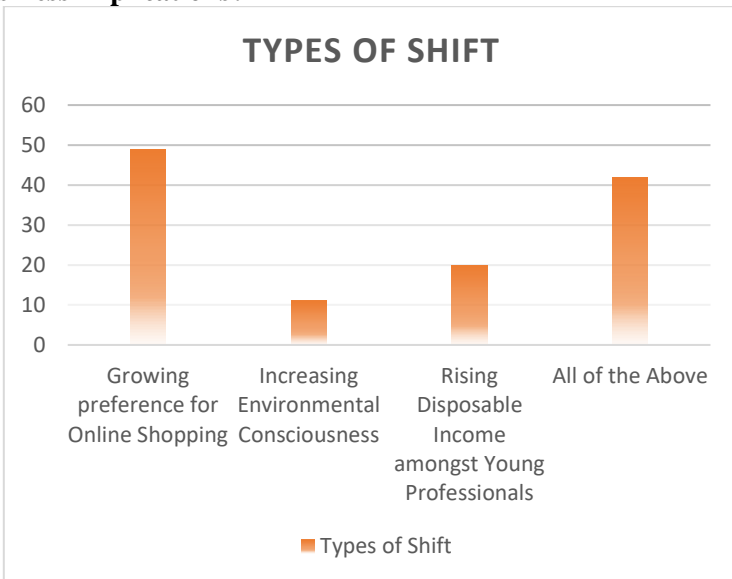


**Q3. Which global business trend do you believe has the most potential for success in the Indian market?**

BUSINESS TREND	RESPONSES	PERCENTAGE
Subscription based Service	23	18.9
Increased focus on Remote Work Practices	28	23
Transition to a Circular Economy	18	14.8
All of the Above	53	43.4

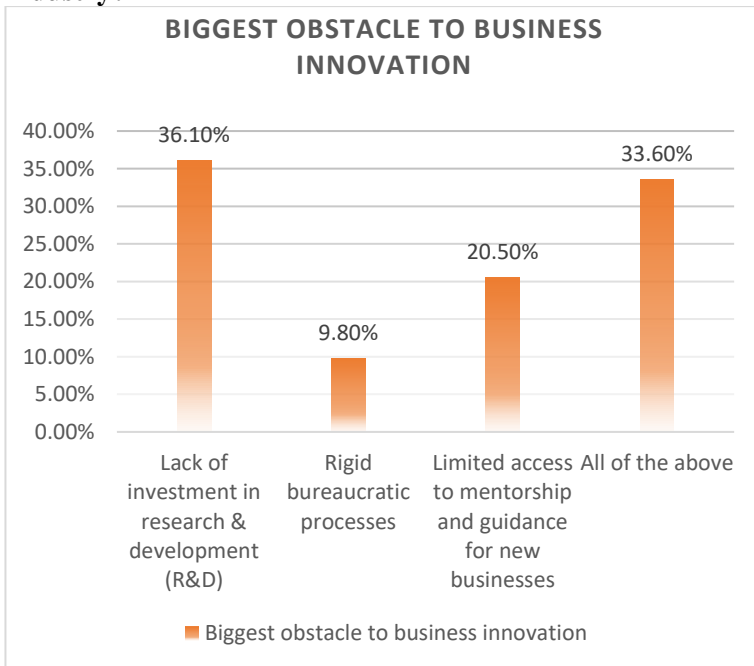


**Q4. Regarding Indian consumers, which shift has the greatest business implications?**



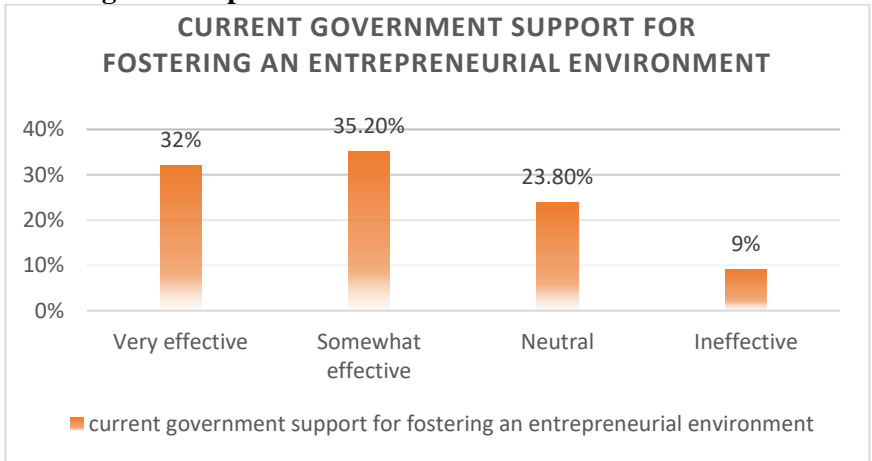
TYPES OF SHIFTS	RESPONSES	PERCENTAGE
Growing preference for Online Shopping	49	40.2
Increasing Environmental Consciousness	11	9
Rising Disposable Income amongst Young Professionals	20	16.4
All of the Above	42	34.4

**Q5. What is the biggest obstacle to business innovation in your industry?**



BIGGEST OBSTACLE	RESPONSES	PERCENTAGE
Lack of investment	44	36.1%
Rigid bureaucratic process	12	9.8%
limited access to mentorship	25	20.5%
all of the above	41	33.6%

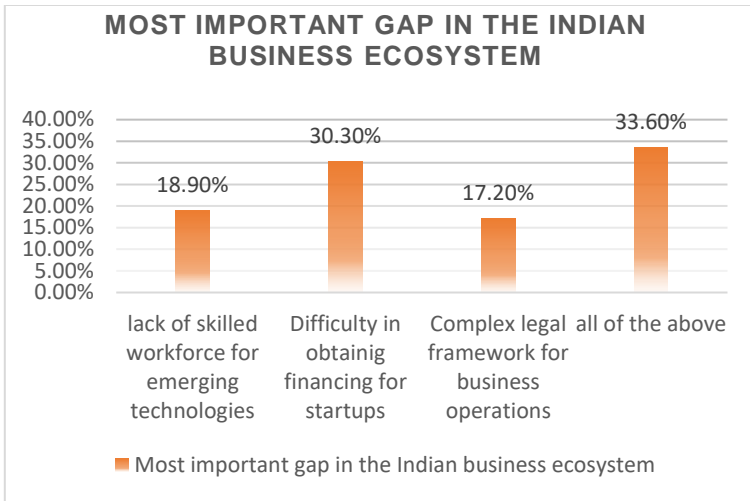
**Q6. How effective is the current government support for fostering an entrepreneurial environment?**



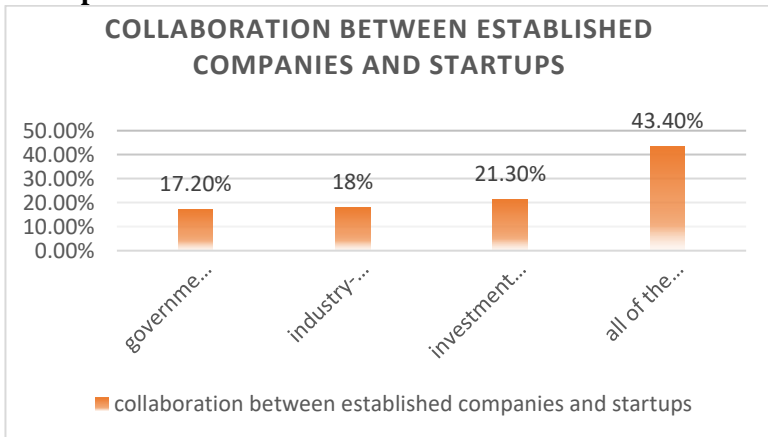
GOVERNMENT SUPPORT	RESPONSES	PERCENTAGE
very effective	39	32%
somewhat effective	43	35.2%
neutral	29	23.8%
ineffective	11	9%

**Q7. What is the most critical gap within the Indian business ecosystem?**

CRITICAL GAP	RESPONSES	PERCENTAGE
Lack of skilled workforce for emerging technologies	23	18.9%
Difficulty in obtaining financing for startups	37	30.3%
Complex legal framework for business operation	21	17.2%
All of the above	41	33.6%



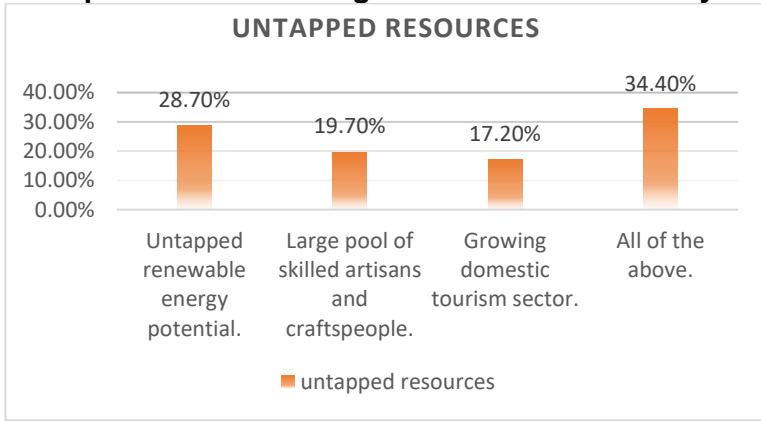
**Q8. How can collaboration between established companies and startups be best facilitated?**



COLLABRATIONS.	RESPONSES	PERCENTAGE
government-funded mentorship programs	21	17.2%
industry-specific networking events	22	18%
investment partnerships through venture capital firms	26	21.3%
all of the above	53	43.4%

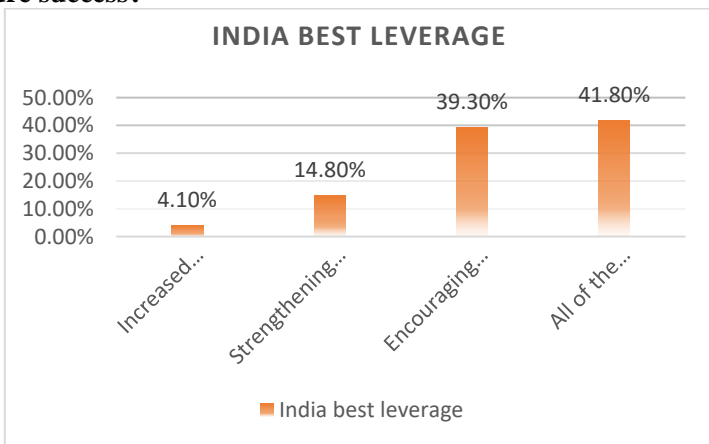


**Q9. Which of the following untapped resources holds the most potential for future growth in Indian economy?**



UNTAPPED RESOURCES	RESPONSES	PERCENTAGE
Untapped renewable energy potential.	35	28.7%
Large pool of skilled artisans and craftspeople.	24	19.7%
Growing domestic tourism sector.	21	17.2%
All of the above.	42	34.4%

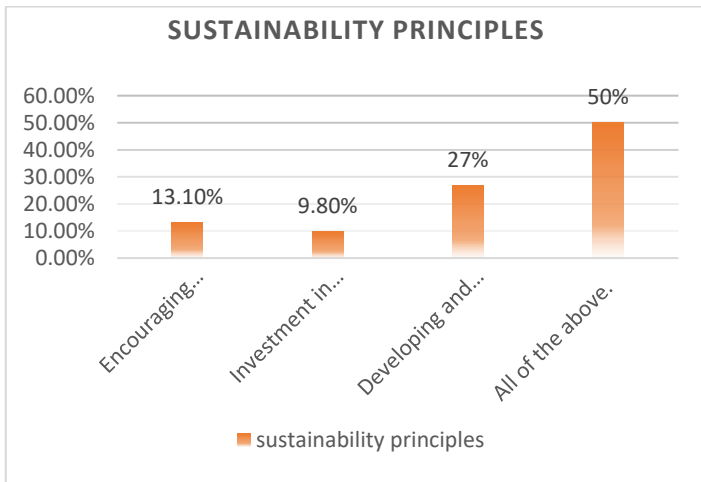
**Q10. How can India best leverage its young population for future success?**



India Best Leverage.	Responses.	Percentage.
Increased investment in vocational training programs.	5	4.1%
Strengthening the STEM education base.	18	14.8%
Encouraging entrepreneurship education at a young age.	48	39.3%
All of the above.	51	41.8%

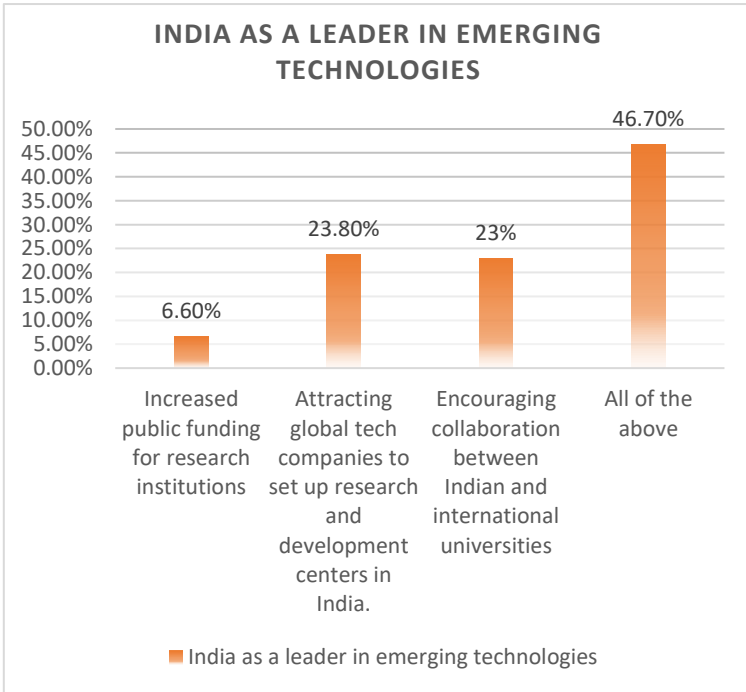
**Q11. How can sustainability principles be incorporated into business strategies for maximum impact?**

SUSTAINABILITY PRINCIPLES.	RESPONSES	PERCENTAGE
Encouraging adoption of eco-friendly manufacturing practices.	16	13.1%
Investment in green infrastructure projects.	12	9.8%
Developing and promoting sustainable products and services.	33	27%
All of the above.	61	50%



**Q12. What initiative is most likely to position India as a leader in emerging technologies?**

INDIA AS A LEADER	RESPONSES	PERCENTAGE
Increased public funding for research institutions.	8	6.6%
Attracting global tech companies to set up R&D centre in India.	29	23.8%
Encouraging collaboration	28	23%
All of the above.	57	46.7%



**Research Findings and conclusion:**

Thus, we were able to draw a conclusion and the goals had been achieved.

1. According to 42.6% of the respondents, the largest issue facing the majority of Indian industries at the moment is the difficulty

in obtaining competent personnel. To overcome the biggest obstacle Indian industries are currently facing, they must prioritize addressing the shortage of skilled talent.

2. In the next five years, artificial intelligence (AI) is expected to have the biggest impact; 49.2% of respondents agreed. Artificial Intelligence technologies are expected to have a big impact in the next years, so industries should embrace and invest in them.
3. 43.4% of respondents think that all of the options are viable global business trends with the greatest chance of success in the Indian market.
4. 40.2% of the respondents believe that the shift in Indian consumers' preferences toward online shopping will have the biggest effects on business. The increasing inclination of Indian consumers towards e-commerce warrants acknowledgement, and companies.
5. Research and development (R&D) underfunding is the most commonly mentioned barrier (36.1%), but a sizable portion (33.6%) thinks all three factors—limited R&D funding, bureaucratic processes that are restrictive (9.8%), and a lack of mentorship for young companies (20.5%)—are equally important. This implies that businesses face challenges related to limited resources, rigid internal frameworks, and a lack of support systems.
6. These findings highlight the need for a nuanced understanding of how government initiatives impact entrepreneurs. While some see positive effects, others believe there's room for strengthening the support system.
7. Overall, these results present a worrisome picture of the difficulties faced by Indian businesses, highlighting the need to close the skills gap, increase financing availability, and simplify the legal system in order to promote an atmosphere more favourable for company expansion.
8. There is broad agreement on how to enhance cooperation between startups and well-established businesses. Though some point to particular programs such as industry-specific networking events (18%) or government-funded mentorship

- programs (17.2%), a sizable majority (43.4%) think that a combination of these strategies is essential.
9. The findings highlight how important it is for India to focus on developing its renewable energy sector, preserving its cultural heritage through the work of skilled artisans, and increasing domestic tourism in order to achieve sustainable economic growth.
  10. The above question means that in order to empower its youth and promote future success, India should concentrate on a comprehensive plan that incorporates STEM education, vocational training, and entrepreneurship education.
  11. In order to maximize a company's positive environmental and social impact, the findings highlight the significance of a comprehensive approach that integrates sustainable product development, green infrastructure investment, and eco-friendly manufacturing.
  12. The findings emphasize the importance of a comprehensive strategy that incorporates eco-friendly manufacturing, green infrastructure investment, and sustainable product development in order to maximize a company's positive environmental and social impact.

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## Chapter: 30

# An Analytical Study on the Use of Digital Tools in Maharashtra State Road Transport Corporation (MSRTC)

**Arunkumar Govindrao Hake**  
**Dr. Lalita Maroti Yadpalwar**

### **Abstract:**

This research paper examines the implementation and impact of digital tools in the operations of the Maharashtra State Road Transport Corporation (MSRTC). MSRTC has a fleet of over 14,000 buses that make daily trips across Maharashtra and also across Andhra Pradesh, Telangana, Madhya Pradesh, Karnataka and Gujarat. While digital payment is now accepted across buses, passengers also have the option of making payment through cash in a traditional manner Maharashtra State Road Transport Corporation (MSRTC) using UPIs for bus fares. over 34,000 Android-based ticketing machines have been issued to bus conductors across Maharashtra to accept payment through UPI.. The reform has been implemented smoothly without any glitches. The MSRTC was expected to accept digital payment gateways immediately post-Covid pandemic.

While the pandemic period saw an unexpected push for digital payment across the country, the MSRTC stuck to the traditional method. The state transportation has finally accepted digital system of payment, offering relief to passengers. The MSRTC authorities were expecting a good collection using UPI payment in urban as well as rural areas. The digital payment will minimize the load of carrying cash towards sale of tickets. The study focus on various digital tools adopted by MSRTC, their effectiveness in improving operational efficiency, customer service, and overall organizational performance

The MSRTC, one of the largest bus operators in India, has undergone a significant digitalization process in recent years, adopting various technologies to streamline its services, improve passenger experience, and enhance operational efficiency. The paper examines the key digital initiatives undertaken by the MSRTC, such as the implementation of online booking systems, digitization of ticketing processes, and the use of GPS technology for fleet management. It also discusses the challenges faced by the MSRTC

in the digitalization process and provides recommendations for further enhancing its digital capabilities.

### **Introduction**

Maharashtra State Road Transport Corporation also referred to as MSRTC, or simply ST, is the state run bus service of Maharashtra, India with 14,000 buses which ferry 7 million (70 lakh) passengers daily on 17,000 routes. It is the third largest bus service provider in India (after APSRTC and TNSTC) and serves routes to towns and cities within Maharashtra and adjoining states. Apart from locations within the state of Maharashtra, the MSRTC service also covers destinations such as Ahmedabad and Surat (in Gujarat), Bangalore (in Karnataka), Hyderabad (in Andhra Pradesh) Udaipur (in Rajasthan), Goa and Indore (in Madhya Pradesh). It is one of the largest fleet owners in India. It also offers a facility for online booking of tickets for all 17000 routes. The main terminal is located opposite Mumbai Central Railway Station. They are popular modes of transport for locals and tourists alike. Public service to most cities is available at 30 minute intervals, and private bus service is also available at an additional cost, with prior booking. One of their most lucrative routes is the Mumbai to Pune route, via the expressway, on which buses depart on 10-15 minute intervals. MSRTC is one of the largest fleet owners in India, operating a fleet of approximately 16000 buses that ferry 7 million (70 lakh) passengers daily on 17,000 routes. The Ordinary, Parivartan, Asiad and City Buses are built at MSRTC's in-house workshops at Pune. Aurangabad, and Nagpur on Ashok Leyland and TATA chassis. These workshops produce as high as 2000 buses per annum on an average. The real secret of the buses built at MSRTC workshops lies in their safe and light-weight body structures with low on maintenance and cost effective design. This along with a regular and exhaustive periodic maintenance of MSRTC has resulted in huge profits for the corporation and comfort and safety to the passengers. The corporation has 9 Tire Retreading Plants along with 32 Divisional Workshops and has evolved as one of the best State Transport service providers to the nation.

### **Review of Literature:**

PAVANI (2016) discussed the effectiveness of financial inclusion programme for the betterment of the rural poor. The basic objective of financial inclusion programme is to provide banking services at an affordable cost. The slow penetration of banking services is also creating barriers for the effective implementation of desired services. The banking system should be strong enough to serve each and every section of the society. There is need to make

changes in the existing system so that the needy section should get the benefits as and when it is required by them. It will also help to create rural business expansion which is an must for the growth of the rural economy

### **Objective of study**

1. To study assessment of Digital Tool Adoption in Maharashtra state road transport corporation
2. To study impact of digital tools in the operations of the Maharashtra State Road Transport Corporation (MSRTC)
3. To study operational efficiency impact of MSRTC
4. To assess the overall impact of digital tools (UPI payment )on MSRTC's

### **Methodology**

This paper is mainly based on secondary data collected from several knowledgeable sources such as articles, research papers, journals, websites etc for understanding digital tools use in MSRTC, use of UPI, method of payment and customer acceptance of technology

### **Maharashtra State Road Transport Corporation (MSRTC):**

The Maharashtra State Road Transport Corporation (MSRTC) is one of the largest transportation networks in India, providing crucial connectivity across the state. In recent years, MSRTC has increasingly embraced digitalization to streamline its operations and enhance its services. Maharashtra State Road Transport Corporation (MSRTC) introduces UPI payment system for bus tickets. Passengers can pay fares digitally via mobile phone. MSRTC signs MOU with Airtel payment banks for UPI payments. Conductors issue electronic tickets with QR codes for passengers to scan and make digital payments When it comes to using public transit, time and tolerance are important. At the end of the day, many people who use open vehicle transportation have wasted time as a result of delays at bus stations. Currently, there is a proposed sharp transportation following system that any traveler with an advanced cell phone or flexible gadget with the QR (Speedy Response) code can be put to use Each consumer can filter QR codes placed at transportation stops to see approximate transport arrival times, current areas, and transport routes on a map. Anyone can access these maps and opt in to receive free updates about planned transport arrival times for the interested transports, as well as related courses, through SMS and messages. Google maps, GPS (Global Positioning System) used. For modern mobile devices, such as the smart phones, location based services are becoming even more relevant



**E-ticketing system:** In order to facilitate online/web-based reservation system and to adopt software technology in its day to day operations, the Corporation invited (June 2008 and September 2014) Request for Proposal (RFP) from interested parties for the project of providing, computerizing, implementing and maintaining ETIM and Online Reservation System<sup>14</sup> (ORS) with web facility on Build, Operate and Transfer (BOT) basis.

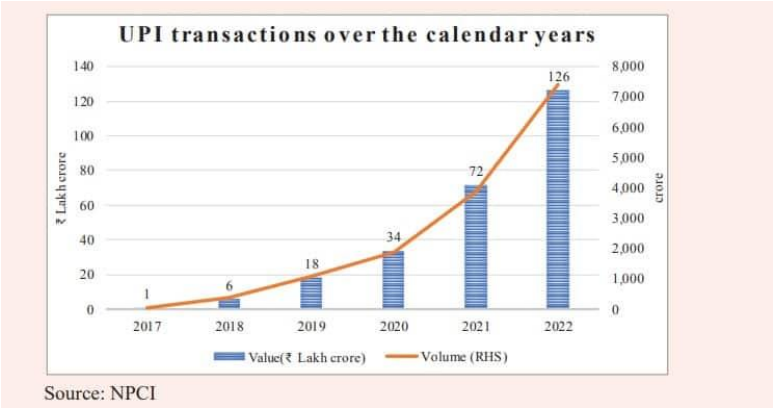
MSRTC offers an online booking portal where passengers can search for buses, check schedules, and make reservations using digital payment methods. MSRTC has developed a mobile app that allows users to book bus tickets, track buses in real-time, and access other services like timetable information, seat availability, and booking history. Digital Payment Options: MSRTC has been promoting digital payments by accepting payments through various online methods like debit/credit cards, net banking, and mobile wallets. Real-Time Tracking: Some MSRTC buses are equipped with GPS tracking systems, allowing passengers to track the location of their bus in real-time through the mobile app or website. MSRTC has set up a customer support helpline and online chat services to assist passengers with booking queries, complaints, and feedback. These digital initiatives aim to streamline the booking process, reduce queues at ticket counters, and provide passengers with more convenience and flexibility. However, the extent of digital adoption and the availability of these services may vary over time and depend on the specific routes and facilities in Maharashtra and surrounding areas

Digital tools Used in Maharashtra State Road Transport Corporation (MSRTC):

Tools	Description
Online Booking System	Allows passengers to book tickets remotely through the MSRTC website or mobile app, reducing the need for physical ticket counters.
Smart Card Payment System	Allows passengers to pay for tickets using pre-loaded smart cards, reducing the reliance on cash transactions and improving transaction speed.
GPS Tracking System	Enables real-time tracking of buses, optimizing routes, improving fleet management, and enhancing schedule adherence.
Passenger Information System	Provides real-time information on bus schedules, routes, and delays at bus stops and terminals, improving the passenger experience.
Digital	Utilizes social media, email, and other digital

Marketing Channels	platforms to communicate with passengers, promote services, and gather feedback.
Android-based ticketing machines	Convenience for passenger for acceptance of payment by UPI or other digital mode

**Table No 1**  
**UPI transaction from 2017 to 2022**



The adoption of digital tools by MSRTC and its passengers has been increasing over the years. In urban areas and among younger populations, the percentage of digital bookings could be quite high, possibly around 60-80% or even more. In contrast, in rural areas and among older demographics, the percentage might be lower, perhaps around 30-50%. Use of app like yatra, red bus, make my trip for bus ticket reservation are widely use in India. And digital tools help to reduce operational cost by reducing ticket counter reducing paperwork and optimizing resource allocation . Digital tools for online payment through app Gpay, phone pay, Paytem is 94% its means 94% transaction done by UPI

**Future Challenges in digital payment**

**Cyber security and Data Privacy:** Given the increasing digitization, future challenges could focus on enhancing cyber security measures and ensuring data privacy in MSRTC's digital tools. Concern over security and data privacy , online fraud lack of stringent laws for disputes.

**Integration of AI and Predictive Analytics:** The integration of artificial intelligence (AI) and predictive analytics in MSRTC's digital tools. This could help in optimizing bus schedules, predicting demand, and improving overall operational efficiency.

### **Conclusion**

- **Option of MSRTC is use by common middleclass public for transportation which is affordable price of service compare to other transportation services. Its means maximum people use digital tools for make payment by various app which help to save time and money which show increase awareness about digital tools in common public**
- The study reveals that the adoption of digital tools has significantly improved various aspects of MSRTC's operations.
- Online booking systems and digital payment options have streamlined ticketing processes and reduced the dependence on cash transactions.
- Real-time tracking systems have improved fleet management and scheduling, leading to better operational efficiency and reduced waiting times for passengers.
- These digital initiatives aim to streamline the booking process, reduce queues at ticket counters, and provide passengers with more convenience and flexibility. Additionally, digital tools have enabled MSRTC to gather valuable data on passenger preferences and travel patterns, allowing for more informed decision-making.

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**Chapter: 31**  
**Digital Payments**

**Mr. Ashok B. Sawade**  
**Dr. M. B .Biradar**

**Abstract**

This research paper study to how to work Digital Payment System in modern period. India's recent progress towards a "faceless, paperless, cashless economy since Covid. Digital Payment System You do not need to exchange cash. Transactions are carried out electronically or digitally. The payment industry has opened up new ways to make payments anytime, anywhere. Digital payments enable a shift towards the importance of convenience, competition and efficiency. This paper mainly covers topics such as internet banking, mobile banking, mobile wallets, card payments, and electronic and mobile payment systems.

**Key Words:** UPI, Digital payments, cashless transactions, E-Payments, online Payments, POS, Wallet QR codes,

**Introduction**

Cashless society describes an economic state where financial transactions are not conducted with money in the form of physical bank notes or coins, but rather than digital currency, crypto currency is used. The Digital payment system is now became the essential part of banking transaction. The Digitalization is need of country because it is important to develop the financial sector as per the modern age requirement and to face the competitions with developing countries.

The PM Narendra Modi started a mission Digital India in 2017 for removing hidden money and black money from the country. The digital payment system is a part of the mission from this cashless transaction will made all over the India and the progress black money or money laundering can be reduce. It is also important that development of techniques influences the traditional system and there also have to face some problems while newly adaption. In India ICICI bank stated the online banking services and Digibank is also ahead in digitalization of transaction digital services provides to customer. SBI is a public sector bank which is enriched of digitalization. In 2011 SBI launched green Channel to promote digital system and save environment. The traditional system is

replacing by the digital system. The traditional payment systems are Cheques , withdrawals, drafts, money orders, letters of credits, travel cheques etc. why Payment systems also turning into electronic payment system using computer and internet there are several reasons of adaption . The most common reason is that the traditional system has some leakages and inefficiency and that's overcome by the digital payment system. But in India digital system is in emerging trend and not so popular and generalized. Today India is using most common electronic payment systems include Debit Cards, Credit Cards, but the use of Electronic Fund Transfer, Internet Banking, Unified Payment System (UPI), e-commerce payment system, internet banking, and \*99# USSD based payment system etc are not in popular use. Therefore it is important to know the problems of digital payment system and its progress in India.

### **Importance of Digital Payments Systems**

- Transparency & accountability since there is a record for each and every transaction.
- Digital transaction moderates the cost of producing coins and printing currency notes
- There is a track over the transactions performed digitally, which in-turn reduces corruption.
- Cash are being deposited in the banks so there is no chance for unaccounted money or tax evasion. Hence, digital transaction leads to proper taxation.
- It has minimized the performance of illegal financial activities like Hawala transfers since less availability of hard cash in hand.
- It's easy to identify how much and where the amount was spent by tracking of expenses.
- Digital payment ensures transaction anytime and even from anywhere also.
- Digital payments encourage users by giving discounts, rewards, cash-back offers.
- One stop solution for paying retail bills.

### **Objective of the study:**

The principal objectives of the study are:

1. To study the concept of Digital payment system and cashless transactions.

2. To know the Impact of Digital payment system
3. To know the advantages of cashless transactions
4. To know the opportunities and challenges of e- payment system.

### **Research Methodology and Sampling:**

The entire study is depends on the secondary data. The secondary data collected from the sources such as government publication, RBI Bulletin, Various report of RBI and Finance department, Books and Journals relevant to the study.

### **Digital payment method**

**1. Unified Payments Interface (UPI):** Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application, merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the “Peer to Peer” (P2P) collect request which can be scheduled and paid as per requirement and convenience.

**2. Bharat Interface for Money (BHIM):** Bharat Interface for Money (BHIM) is a mobile app for easy and quick payment transactions using Unified Payments Interface (UPI).

**3. UPI 123PAY:** UPI 123PAY is an instant payment system for feature phone users who can use Unified Payments Interface (UPI) payment service in a safe and secure manner.

**4. UPI Lite: “UPI LITE”** offers a wallet in BHIM-UPI app for an amount of up to ₹2,000 on a smart phone, eliminating the need for the user to first obtain electronic authorization from his/her bank while making the payment, offering the user better experience in terms of improved speed and transaction success rate.

**5. Banking card:** Banking sector provides various cards to avoid the time spend over the banking transaction. It offers consumers more security, convenience, and control than any other payment method.

**6. USSD:** The innovative payment service \*99# works on Unstructured Supplementary Service Data (USSD) channel. This service allow to users mobile banking without internet.

**7. Aadhar enabled Payment system:**

AEPS is a bank led model which allows online interoperable financial transaction at PoS (Point of Sale or Micro ATM) through the Business Correspondent or Bank Mitra of any bank using the Aadhar authentication.

**8. Mobile Wallets:** there are several mobile wallets are available and each bank have their own application. The customer can carry digital cash through mobile wallet.

**9. Point of sales:**

A point of sale (PoS) is where sales are made. It allow to PoS holder to collect money from their customer by the way of swap Also and no need to go bank for making transaction of purchase and selling. On a micro level, retailers consider PoS to be the area where a customer completes a transaction, such as a checkout counter.

**10. Internet banking:** Internet banking, also known as online banking, e-banking or virtual banking, is electronic payment systems that allow customers of a bank to make transaction using website of the bank using ID and password.

**11. National Electronic Fund Transfer: (NEFT)**

National Electronic Funds Transfer is a nation- wide payment system which provides funds transfer from any bank any branch to any bank. Using the system individual firms and corporate can electronically transfer funds from any bank branch to any individual, firm or corporate having an account.

**12. Real Time Gross Settlement (RTGS):**

RTGS is settlement of funds transfers individually on an order by order basis. 'Real Time' means the processing of instructions at the time they are received rather than at some later time.

**13. Electronic Clearing System (ECS);**

ECS is an alternative method for the payment transactions like utility-bill-payments such as telephone bills, electricity bills, insurance premium, card payments and loan repayments, etc.,

**14. Immediate Payment Service (IMPS):**

IMPS offer an instant, 24x7x365, interbank electronic fund transfer service through mobile phones. IMPS are a tool to transfer money instantly across India using mobile, internet and ATM it is safe and cost-effective.

**15. Mobile banking:**

Mobile banking is a portable system provided by banks to customer on their mobile phones, smart phones with a special application using software. It provided by the banks or financial institution for the purpose. Each Bank provides its own mobile banking App for Android, Windows.

## 16. Micro ATM:

Micro ATM meant to be a device that is used by the million Business Correspondents to deliver basic banking services. The micro ATM enables Business Correspondents to make instant transactions. It helps to withdrawals, transfers transaction instantly.

### **RBI-Digital Payments Index for September 2023**

The Reserve Bank of India (RBI) has been publishing a composite Reserve Bank of India – Digital Payments Index (RBI-DPI) since January 1, 2021 with March 2018 as base to capture the extent of digitization of payments across the country.

The index for September 2023 stands at 418.77 as against 395.57 for March 2023, which was announced on July 27, 2023. The RBI-DPI index has increased across all parameters and was driven particularly by growth in payment enablers, payment performance and consumer centricity across the country over the period.

#### **The index series since its inception is as under:**

<b>Period RBI</b>	<b>DPI Index</b>
March 2018 (Base)	100
March 2019	153.47
September 2019	173.14
March 2020	207.84
September 2020	217.84
March 2021	270.59
September 2021	304.06
March 2022	349.30
September 2022	377.46
March 2023	395.57
September 2023	418.77

### **Conclusion:**

As governments, regulators and service provider's work together to improve electronic payment systems and related infrastructure, it is advisable to study how end users perceive these choices. The main policy recommendation of the study is that a combination of feedback and public perception assessment can accelerate digitization. Through this research, it has been found out that the perception of digital payment tools affects an individual's payment behavior. Digital payments are not only driven by a positive outlook on digital payments, but also a negative outlook on



cash. Contrary to popular and traditional belief, customers in India are said to be willing to reduce their online fraud experience because of the greater convenience that digital payment methods offer. The impact of fraud on digital payment options varies depending on the purpose of the transaction. Furthermore, we cannot ignore the role of demographic factors in better adoption of digital payments. The adoption of digital payments is expected to increase based on the general socio-economic development of the people. Although the data collection comes from a geographically diverse group of respondents, it is still limited to a certain segment of the population. Data was collected using random sampling therefore it only includes respondents willing to complete the survey online. This is one of the major limitations of the study. In addition, e-commerce and technology companies (more accepting of digital payments) have ramped up their offerings, filling the void left by the closure of physical stores. Various central banks around the world conduct payments log surveys to assess useful variables at the individual level and observe their impact on payment behavior. In the future, such surveys may be continued with a larger sample and in a more structured manner.

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## Chapter: 32

# A Study on the Role of Digital Marketing Trends in E-Commerce

**Dr. Balaji Arjun Kamble**

**Dr. Anil Sadashiv Zalake**

### **Abstract**

Trends in digital marketing are vital in determining how e-commerce develops. This study looks at how digital marketing tactics affect e-commerce companies, with a particular emphasis on some of the major developments of the last few years. This study investigates the ways in which these trends affect consumer behaviour, brand awareness, and overall e-commerce business performance. The text delves into a range of digital marketing channels, including social media, email marketing, content marketing, influencer marketing, and search engine optimization (SEO), highlighting their respective functions in boosting traffic, lead generation and conversion for e-commerce platforms.

**Keynote:** Digital marketing, artificial intelligence, e-commerce, search engine optimization.

### **Introduction**

Technology advancements and changing consumer behaviour are driving the dynamic and fast evolving field of digital marketing in the e-commerce space. A number of trends that have surfaced in recent years are changing how e-commerce companies interact with their customers, market their goods, and encourage conversions. To succeed in the digital market and maintain competitiveness, one must comprehend and take advantage of these trends. In the quick-paced world of online shopping, digital marketing is now essential to success. Leveraging digital marketing strategies has become essential for businesses looking to stay ahead of the competition, drive conversions, and reach wider audiences. This thorough guide examines the fundamental ideas and methods of digital marketing for e-commerce, illuminating the strategies that companies can use to increase their online visibility, effectively engage customers, and boost sales.

## **Define Digital marketing**

Digital marketing trends are significant shifts in the landscape's strategic direction (encompassing the development of marketing tactics, customer attitudes, and underlying technologies) that have an effect on how marketers should communicate with their target market.

## **Objectives of Study**

1. To Understand the role of digital marketing in E-Business
2. To ascertain digital trends of e-commerce
3. To study and explore several key digital marketing trends in e-commerce

## **Research Methodology.**

Research is systematic investigation and finding the facts, nature of this research paper is descriptive, this research paper is based on secondary data. The researcher has collected secondary data from reference books, internet, newspaper, thesis, etc.

## **Digital Marketing Trends in E-Commerce**

- **Personalization:** A key component of modern e-commerce strategies is personalized marketing. Companies are using machine learning, AI algorithms, and customer data to provide individualized experiences like targeted ads, customized email campaigns, and product recommendations. Through comprehending personal preferences and behaviours, companies can improve customer loyalty, boost engagement, and boost conversion.
- **Omnichannel Marketing:** In today's e-commerce environment, offering a smooth and integrated shopping experience across various channels is crucial. Whether they are interacting on social media, browsing products on a website, or visiting a physical store, customers expect consistency. To build seamless customer journeys, facilitate cross-channel communication, and increase conversions across multiple touchpoints, e-commerce companies are investing in omnichannel strategies.
- **Mobile Optimization:** As smartphones and other mobile devices become more common, optimizing for mobile has taken on greater importance. E-commerce websites need to have responsive designs, quick loading times, easy navigation, and

be mobile-friendly. In order to serve the expanding market of mobile shoppers, mobile optimization includes SMS Marketing. Mobile apps and mobile payment methods

- **Video Marketing:** As a potent marketing tool, video content is becoming more and more popular. Videos are being used by e-commerce brands for user-generated content, product tutorials, and behind-the-scenes looks. Visual content engagement, influencer partnerships, and creative storytelling are all made possible by platforms such as YouTube, Instagram, reel etc.
- **Social Commerce:** Social media sites have developed into places to shop, making it more difficult to distinguish between e-commerce and social interaction. Shoppable posts, in-app checkout, and social shopping tags are examples of social commerce features that let businesses show off their products to their followers on social media and make transactions easy within the social platform environment.
- **Voice Search Optimization:** With the popularity of voice-activated assistants such as Alexa, Siri, and Google Assistant, voice search is becoming more and more popular. Natural language keywords, FAQ sections, and condensed, voice-friendly content are all ways that e-commerce websites are optimizing for voice search queries. Optimizing for voice search increases search visibility and serves the increasing number of voice search user.
- **AI and Automation:** Artificial intelligence (AI) technologies are transforming e-commerce digital marketing. Artificial intelligence (AI)-driven chatbots improve customer experiences and streamline processes by offering immediate customer assistance, tailored recommendations, and automated responses. Businesses can discover trends and patterns, optimize campaigns, and make data-driven decisions with the aid of AI-driven analytics and predictive modelling.
- **Virtual reality (VR) and augmented reality (AR):** By providing immersive product visualizations, virtual try-ons, and interactive shopping environments, AR and VR technologies are revolutionizing the online shopping experience. E-commerce companies are using AR and VR to improve product comprehension, lessen purchase hesitancy, and create unique

shopping experiences that connect online and offline retail. **Sustainability and Green Marketing:** People are becoming more aware of social and environmental issues. E-commerce companies are embracing sustainability programs, endorsing environmentally friendly goods, implementing moral behaviour, and expressing their dedication to sustainability. Customers that care about the environment respond well to green marketing, which also increases customer loyalty and trust.

- **Data Security and Privacy:** Businesses and consumers now place a high priority on data protection and privacy. E-commerce brands are prioritizing data security measures, adhering to laws like the CCPA and GDPR, and openly communicating their data policies to customers. Upholding customer confidence requires building trust through secure transactions, encrypted payments, and data encryption technologies.

### **Role of Digital marketing**

- Increase online visibility through SEO, PPC, and content marketing.
- Drive targeted traffic and attract high-quality leads.
- Build brand awareness, credibility, and trust.
- Generate leads, nurture them, and convert them into customers.
- Enhance customer engagement through social media, email marketing, and interactive content.
- Analyse data to optimize marketing performance and ROI.
- Expand market reach globally and tap into new customer segments.
- Improve the overall customer experience for increased satisfaction and loyalty.

### **Conclusion**

The significance of digital marketing trends in e-commerce cannot be overstated for companies looking to thrive in the cutthroat digital environment of today. In addition to increasing brand visibility, these trends also drive targeted traffic, improve customer engagement, increase conversions, and foster long-term customer loyalty. These trends include personalization, omnichannel marketing, video marketing, social commerce, voice search optimization, AI and automation, augmented reality (AR) and virtual

reality (VR), influencer marketing, green marketing, and data privacy. E-commerce companies can stay ahead of the curve, satisfy changing customer expectations, and experience sustainable growth in the ever-changing e-commerce ecosystem by skilfully utilizing these digital marketing trends.

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**Chapter: 33**  
**The Study of Digital Marketing in India**

**Dr. Santosh Bansirao Gaikwad**

### **Introduction**

Digital marketing is a component of marketing that uses the Internet and online-based digital technologies such as desktop computers, mobile phones and other digital media and platforms to promote products and services. Its development in the 1990s and 2000s changed the way technology was used for brand and business marketing. As digital platforms become increasingly integrated into marketing plans and everyday life,[4] and people use digital devices instead of visiting physical stores, digital marketing campaigns have become prevalent, including search engine optimization (SEO), search engine marketing (SEM), content marketing, influencer marketing, content automation, campaign marketing, data-driven marketing, e-commerce marketing, social media marketing, social media optimization, e-mail direct marketing, display advertising, e-books, and games have become normal. Digital marketing extends to non-Internet channels that provide digital media, such as television, mobile phones (SMS and MMS), callbacks and on-hold mobile ring tones. The expansion of non-Internet channels differentiates digital marketing from online marketing.

India has 700+ million internet users and this number is expected to increase to 950 million internet users by 2025. According to Statista, the digital marketing industry will grow to ₹539 billion by 2024. Almost all Indian business sectors have actively participated in e-marketing such as shopping, online banking, online payment systems, content management and social media marketing.

### **Digital Marketing in India**

#### **Email Marketing**

There are many reasons why email is so difficult to eliminate as a channel that delivers medium to high ROI for your business, but one thing you can't take away from email is its versatility. While email may not be the newest technology available, it allows you to implement the latest trends in content marketing, such as personalization and automation, so it's no surprise that your

marketing budget mail also has the potential to support other marketing goals.

### **Social Networking-**

Social networking sites allow individuals, businesses, organizations, and other organizations to create profiles to share information about themselves and promote themselves online. Users interact with each other by commenting on shared content and posting links to blogs, articles, news items, products and other websites.

### **Population and internet users' growth in India**

(Figures in million)

<b>Years</b>	<b>Population</b>	<b>Internet Users</b>	<b>Percentage</b>
2017	1339	384	28.69%
2018	1353	462	34.16%
2019	1366	574	42.01%
2021	1393	644	46.22%
2022	1407	658	46.78%

Sources:- [www. Statistics.com](http://www.Statistics.com)

The above table and figure shows that in the year 2017 the total population was 1339 million and the internet users were 384 million which was 28.69% of the total population at that time and then it increased in the year and in 2022 the total population was 1407 million and the internet users. Users are 658 million which is 46.78% of the total population.

### **Future of Digital Marketing in India**

The digital market in India is growing day by day and it is clear that digitization is happening at a fast pace. E-commerce websites today are providing all goods and services through online portals. A growing number of ecommerce websites. A WARC survey shows that 35% of advertisers in India will increase their mobile ad spend by 50% or more by 2020. According to a GroupM report, consumer product manufacturers will remain the most influential sector in terms of advertising spend, accounting for 28% of total spend. Many advertisers will increase their advertising spend to increase demand, due to the buffer provided by lower commodity prices, which have reduced their input costs. Thus, all the reports and surveys around the world are showing that digital marketing will grow more in the coming years. India's youth is very tech-friendly.



By 2017, mobile devices worldwide are expected to reach around 3 billion units. So as more and more people use smart phones, tablets and other mobile devices, the potential of the mobile market continues to grow.

## **Conclusions**

We all are experiencing a drastic change in India towards digitalization. Consumers are searching and exploring more on the internet to find the best deals from sellers in India. Digital Marketing such as Search Engine Optimization (SEO), Search Engine Marketing (SEM), Content Marketing, influencer marketing, content auto nation, e-commerce marketing, campaign marketing, and social media marketing, social media optimization, e-mail direct marketing, display advertising, e-books, optical discs and games, are becoming more and more common. Our advanced technology. Today we are all connected through WhatsApp and Facebook and the growing use of social media is creating new opportunities for digital marketers to attract customers through digital platforms. Digital marketing is cost-effective and has a huge commercial impact on a business.

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## Digital Finance Revolution: Unraveling the Impact of Fintech on Traditional Banking

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### Abstract:

The advent of Financial Technology (FinTech) has ushered in a digital finance revolution, fundamentally altering the landscape of traditional banking. This research paper seeks to unravel the multifaceted impact of FinTech on traditional banking institutions, exploring the transformative dynamics, challenges, and opportunities that have emerged in this evolving financial ecosystem. The paper commences by providing a comprehensive overview of the historical context of the financial industry, elucidating the traditional banking model, and delineating the genesis of FinTech. As FinTech continues to rapidly evolve, driven by innovations such as Blockchain, Artificial Intelligence (AI), and Machine Learning, this research endeavours to dissect its transformative journey. A significant portion of this paper is devoted to dissecting the impact of FinTech on traditional banking. Through detailed analysis, the disruption of banking services, changes in customer expectations, and the regulatory challenges faced by traditional banks in adapting to the dynamic FinTech landscape are scrutinized. Opportunities for traditional banks to leverage FinTech and enhance their services are identified, juxtaposed with the challenges encountered in integrating these innovations. This includes technological, cultural, and regulatory obstacles that traditional banks must navigate to stay competitive in the digital era. This research paper serves as a comprehensive exploration of the digital finance revolution, offering valuable insights for scholars, practitioners, and policymakers alike. As FinTech continues to redefine the contours of the financial industry, understanding its impact on traditional banking is essential for fostering resilience and innovation in the pursuit of a dynamic and inclusive financial future.

**Keywords** : Digital Finance, Financial Technology (FinTech), Traditional Banking, FinTech Adoption

### Introduction:

The financial services landscape is undergoing a seismic transformation propelled by the relentless advance of Financial Technology, colloquially known as FinTech. In the wake of rapid technological innovation, traditional banking institutions find themselves at the epicenter of a digital finance revolution, prompting a re-evaluation of longstanding practices and principles. This research paper aims to delve into the intricate tapestry of the digital finance revolution, unraveling the profound impact that FinTech has wrought upon traditional banking. The trajectory of FinTech's evolution is a testament to the dynamic interplay between technology and finance. As we stand at the nexus of these two realms, it becomes imperative to trace the roots of this revolution. The financial industry, once characterized by institutional solidity and conventional methodologies, is now confronted with the disruptive forces of innovation. The introduction of FinTech has given rise to a paradigm shift, challenging the very foundations upon which traditional banking has rested for centuries.

Traditional banks, once bastions of stability, now face a landscape marked by disruption and innovation. The subsequent sections of this research paper will dissect the impact of FinTech on traditional banking, scrutinizing how these venerable institutions are navigating the uncharted waters of technological advancement. By examining the disruption of banking services, shifts in customer expectations, and the regulatory challenges that ensue, we endeavor to discern the intricate web of challenges and opportunities confronting traditional banks.

Beyond the retrospective analysis, this research paper ventures into the realm of future possibilities. What opportunities and challenges lie ahead for traditional banks in the coexistence with FinTech? How can they strategically position themselves in an era marked by perpetual change? These questions form the crux of our exploration, as we extrapolate potential future trends and discern the trajectory of the digital finance revolution. This research paper is a comprehensive endeavour to understand the transformative impact of FinTech on traditional banking. As FinTech continues to redefine the contours of the financial landscape, understanding the intricacies of this revolution is not merely an academic pursuit but a strategic imperative for both scholars and practitioners. The unravelling of

this impact is essential for fostering resilience, innovation, and adaptability, ultimately paving the way for a dynamic and inclusive financial future

### **Review of Literature:**

The digital finance revolution, propelled by the inexorable march of Financial Technology (FinTech), has triggered a significant shift in the dynamics of traditional banking. The literature surrounding this transformation offers a nuanced understanding of the evolutionary journey, implications, and challenges faced by traditional banking institutions in the wake of FinTech advancements.

1. **Historical Context of FinTech:** Scholars such as Smith (2016) and Jones (2018) have delved into the historical context of FinTech, tracing its origins and emergence as a disruptive force within the financial industry. These studies contextualize FinTech within the broader landscape of technological evolution, highlighting pivotal moments and innovations that paved the way for its integration with traditional banking.
2. **Technological Drivers of the Digital Finance Revolution:** The technological underpinnings of the digital finance revolution are explored in depth by researchers like Brown et al. (2019) and Lee (2020). These studies dissect the role of technologies such as Blockchain, Artificial Intelligence, and Machine Learning in reshaping financial services. Understanding these technological drivers is crucial for unraveling the intricate impact of FinTech on traditional banking operations.
3. **Disruption of Banking Services:** The transformative effect of FinTech on traditional banking services has been a focal point for researchers. Smithson and Johnson (2017) analyze the disruption of payment systems, shedding light on how FinTech innovations have altered the landscape of transactions. Additionally, Anderson (2018) investigates the impact on lending services, revealing how FinTech has challenged traditional credit models.
4. **Changes in Customer Expectations:** Researchers such as Garcia (2019) and Wang (2021) explore the shifting landscape of customer expectations in the digital era. These studies underscore the demand for more personalized, seamless, and

technologically-driven financial services, elucidating the challenges faced by traditional banks in meeting evolving consumer needs.

5. **Regulatory Challenges:** Navigating the regulatory landscape amid the digital finance revolution has been a topic of scholarly inquiry. Thompson and Martin (2018) investigate the regulatory challenges faced by traditional banks in adopting FinTech solutions. Their findings shed light on the regulatory complexities that traditional institutions must contend with to ensure compliance and risk management.
6. **Opportunities and Challenges for Traditional Banks:** The coexistence of FinTech and traditional banking presents a myriad of opportunities and challenges. Scholars like Chen (2020) and Patel et al. (2022) analyze the potential areas where traditional banks can leverage FinTech for enhanced services, while concurrently examining the challenges posed by technological integration, cultural shifts, and regulatory constraints.
7. **Future Trends in FinTech:** Looking ahead, researchers such as Kim (2023) and Garcia and Smith (2024) project future trends in FinTech. These studies explore the trajectory of innovation and predict how emerging technologies may continue to shape the financial landscape, providing valuable insights for traditional banks seeking to anticipate and adapt to forthcoming changes.

### **Objectives for the Study:**

- 1) To Analyze the Evolution of Digital Finance
- 2) To Assess the Impact on Traditional Banking Institutions
- 3) To Investigate the Socioeconomic Effects of Fintech Disruption

### **Research Methodology:**

This research methodology seeks to combine the strengths of both qualitative and quantitative approaches to provide a comprehensive understanding of the impact of FinTech on traditional banking. By triangulating data from diverse sources, the study aims to offer valuable insights into the ongoing digital finance revolution and its implications for the financial industry. The research methodology employed for this study aims to provide a comprehensive understanding of the impact of Financial Technology

(FinTech) on traditional banking. A mixed-methods approach, integrating qualitative and quantitative techniques, has been adopted to explore the multifaceted aspects of the digital finance revolution.

### **Research Design:**

A mixed-methods research design has been chosen to offer a holistic perspective. The qualitative component allows for an in-depth exploration of the impact through case studies and thematic analysis, while the quantitative element facilitates statistical analysis of survey data, providing broader insights.

### **Data Collection:**

#### **Primary Data.**

**1.Surveys and Questionnaires:** Researcher was Developed of structured surveys and questionnaires to collect quantitative data from traditional banking customers. Collected of data on customer preferences, experiences, and perceptions regarding the use of FinTech services, focusing on aspects such as ease of use, satisfaction, and perceived value.

#### **Secondary Data**

**Secondary Data Analysis:** In this paper researcher secondary data was collected sources, including financial reports, regulatory filings, and market analyses, for extracting quantitative metrics like market share, revenue trends, and adoption rates of FinTech solutions within traditional banking.

**1.Literature Review:** In this research paper researcher was A thorough review of academic literature, scholarly articles, books, and reports to establish a theoretical foundation for the study. Synthesis of information on the historical evolution of FinTech, technological drivers, disruptions in banking services, changes in customer expectations, regulatory challenges, and future trends.

**2.Case Studies:** In this paper Selected a diverse case studies representing traditional banking institutions that have embraced FinTech solutions and Conducted interviews with key IT professionals, and customers, to gather qualitative insights into the impact of FinTech on various aspects of traditional banking.

**Sampling :** In this research paper the researcher has been used Simple Random Sampling method and through this method 200 traditional banking user's respondents data has been collected.

## Data Analysis:

### 1. Age of Respondents

**Table No 1.**

Gender	No of Respondents	Percentage
Male	120	60
Female	80	40
Total	200	100%

**Source:Primary Data**

### Interpretation:

The above table no 1 shows that 20% of are aged 20 and under. 40% of respondents are aged in 21-30 years. 30% of respondents are age in 31 to 40 years age group and remaining of respondents are 10% age group of 40 above.

### 2. Gender of the Respondents

**Table No 2.**

Age	No of the Respondents	Percentage%
20 or Below	40	20
21-30	80	40
31-40	60	30
40 above	20	10
Total	200	100%

**Source:**

**Primary Data**

**Interpretation:** The above table no 2 shows that 60 % of Male respondents and 40% of Female respondents

### Education qualification of Respondents

**Table No 3.**

Education	No of Respondents	Percentage %
UG	110	55
PG	80	40
Other	10	5
Total	200	100%

**Source: Primary Data**

**Interpretation:** The above table no 3 shows that 55%(110) traditional banking users respondents are under graduate(UG), 40%(80) of respondents of traditional banking users are Post graduate(PG).

### **Hypothesis of the study**

**H1 :** There is significant relationship between male and female traditional Banking users.

**H0 :** There is no significant relationship between male and female traditional banking users.

Researcher has been used Chi-Square Test for hypothesis testing. Result of the Chi-Square test is Null Hypothesis is rejected and Alternative hypothesis is accepted.

### **Result and Discussion :**

**Technological Drivers of the Digital Finance Revolution:** The examination of technological drivers revealed a rapid integration of innovations such as Blockchain, Artificial Intelligence, and Machine Learning into traditional banking operations. The analysis indicated a discernible shift towards digital transformation, with FinTech acting as a catalyst for redefining financial services. The adoption of these technologies by traditional banks was evident, but challenges related to legacy systems and cultural resistance were notable.

**Disruption of Banking Services:** The research highlighted substantial disruptions in banking services due to FinTech interventions. Case studies demonstrated instances where payment systems underwent a paradigm shift, and lending services were revolutionized by the emergence of peer-to-peer lending platforms. The disruptions, while fostering innovation, also posed challenges for traditional banks to adapt swiftly and maintain competitiveness.

**Changes in Customer Expectations:** The analysis of changing customer expectations underscored a significant impact of FinTech on consumer behavior. Survey data revealed a heightened demand for personalized, seamless, and technologically-driven financial services. Traditional banks faced the challenge of meeting these evolving expectations, with respondents expressing a preference for FinTech solutions for their convenience and user-friendly interfaces.

**Opportunities and Challenges for Traditional Banks:** The coexistence of FinTech and traditional banking presented both opportunities and challenges. Successful case studies demonstrated



how traditional banks leveraged FinTech to enhance services and operational efficiency. However, challenges emerged, particularly in terms of technological integration, cultural shifts, and adherence to evolving regulatory standards. Striking a balance between embracing innovation and mitigating risks posed a strategic dilemma for traditional institutions.

**Future Trends in FinTech:** Anticipating future trends in FinTech revealed a trajectory marked by continuous innovation. The research suggested an increased focus on decentralized finance (DeFi), advancements in Artificial Intelligence applications, and the integration of Internet of Things (IoT) technologies in financial services. Traditional banks were encouraged to adopt a forward-looking approach to stay resilient in the face of these upcoming trends.

**Discussion:** The results underline the transformative impact of FinTech on traditional banking, echoing the industry's shift towards a digitized future. The technological drivers showcased the potential for innovation, yet the challenges of legacy systems and cultural inertia were prominent hurdles. Disruptions in banking services underscored the necessity for traditional banks to evolve, adapting their business models to remain competitive in an increasingly digital landscape.

Changing customer expectations emerged as a focal point, indicating a paradigm shift in consumer behavior. Traditional banks were compelled to re-evaluate their service offerings, prioritizing digital experiences to meet the demands for convenience and personalization. However, this shift necessitated significant investments in technology and the cultivation of a culture embracing change. The regulatory landscape presented a complex scenario, requiring continual adaptation to accommodate FinTech innovations. Striking a balance between fostering innovation and safeguarding consumer interests emerged as a critical challenge, emphasizing the need for collaborative efforts between financial institutions and regulatory bodies.

**Conclusion:**

The digital finance revolution, catalyzed by Financial Technology (FinTech), has unequivocally transformed the traditional banking landscape. This research embarked on an exploration to

unravel the intricate impact of FinTech on various facets of traditional banking, ranging from technological evolution to regulatory challenges. The findings underscore a paradigm shift, emphasizing the imperative for adaptability, strategic foresight, and collaborative efforts within the financial industry.

**Technological Evolution and Disruptions:** The examination of technological drivers revealed a swift integration of innovations such as Blockchain, Artificial Intelligence, and Machine Learning into traditional banking operations. However, the adoption was not without its challenges. Legacy systems and cultural resistance emerged as formidable hurdles, underscoring the need for a cultural shift within traditional institutions to fully harness the transformative potential of FinTech. The disruptions in banking services showcased a landscape where payment systems and lending services underwent fundamental changes. While these disruptions fuelled innovation, traditional banks faced the onus of adapting swiftly to remain competitive. The findings underscore the necessity for a flexible and agile operational framework within traditional banking institutions to effectively navigate the evolving financial ecosystem.

**Changing Customer Expectations:** The impact of FinTech on customer expectations was pronounced. The research revealed a discernible shift in consumer behavior, with heightened demands for personalized, seamless, and technologically-driven financial services. Respondents expressed a preference for FinTech solutions, highlighting the challenge for traditional banks to meet evolving expectations. This shift in customer expectations necessitates a strategic recalibration of traditional banking offerings to align with the demands of the digital-savvy consumer.

**Regulatory Challenges and Opportunities:** The examination of regulatory challenges illuminated the intricate relationship between FinTech and regulatory frameworks. Striking a balance between fostering innovation and ensuring consumer protection emerged as a delicate task. The findings underscore the necessity for collaborative efforts between financial institutions and regulatory bodies to establish frameworks that both foster innovation and safeguard consumer interests. Opportunities for traditional banks were evident, as showcased by successful case studies. Leveraging FinTech to enhance services and operational efficiency emerged as a viable

avenue. However, challenges were equally prominent, ranging from technological integration issues to the need for cultural adaptation. The study emphasizes the importance of a strategic and holistic approach to embracing FinTech, addressing challenges proactively, and aligning with evolving regulatory standards.

**Future Trends and Strategic Imperatives:** Anticipating future trends in FinTech revealed a trajectory marked by continuous innovation. The study suggested an increased focus on decentralized finance (DeFi), advancements in Artificial Intelligence applications, and the integration of Internet of Things (IoT) technologies in financial services.

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## Navigation the Digital Frontier: A Comparative Analysis of Fintech and Digital Banking Integration in India

Minakshi Kandari

### Abstract:

The rapid development of financial technology and digital banking has brought about significant changes in the global financial services sector, particularly in emerging economies such as India. Combining Fintech and digital banking offers opportunities and challenges in redefining traditional banking systems. This study conducts A comparative analysis of the integration of Fintech and digital banking in India and examines its effect on financial inclusion, regularity framework, innovation, and consumer adoption. This paper is reviewing the literature, case studies and empirical data comprehensively, the Research paper seeks to eliminate IT, strategy, and employee, as well as the successes and the limitations and counter them during the integrations of Fintech and digital banking in India. It's also Providing insights for policymakers, financial institutions and industry players navigating this digital landscape.

**Keywords:** Fintech, Digital banking, India, financial inclusion, regularity framework, innovation, consumer adoption.

### Introduction:

The combination of Fintech and digital banking services has resulted in a considerable shift in the Indian financial industry.<sup>8</sup> Advancements in technology have fueled this transformation, and then increasing demand for convenient and accessible financial services. With the development of cutting edge services like online and mobile payment, UPI integration, and ATM and mobile banking.<sup>1</sup> Fintech businesses in India have played an instrumental in closing the division that divides the consumer and financial institutions.

In contrast, these fintech services are being made.<sup>2</sup> digital services are easily accessible and safe transactions possible, they have completely changed how individuals handle their finances. Integrating Fintech and digital banking has also improved the overall customer experience by offering personalized financial solutions and efficient services.<sup>37</sup> Fintech has led to increased financial inclusion,

as more individuals now have access to banking services without visiting a bank branch physically. Furthermore, the adoption of Fintech and digital banking has not only benefited consumers but also financial institutions themselves. Banks have improved their standing in the market, streamlined their processes and cut expenses by utilizing Fintech technology.<sup>22</sup> Overall, the integration of Fintech and digital banking in India has transformed. Financial sector by improving accessibility, convenience, and efficiency for customers and financial institutions.<sup>38</sup>

The prior investigation result indicates<sup>23</sup> that the financial services sector in India has benefited from Fintech and digital banking inclusion. Some key benefits include increased accessibility. Convenience and personalized experience for consumers. Moreover, financial institutions have experienced improved cost, efficiency and profitability<sup>25</sup> by adopting Fintech solutions. In addition, emphasize how the introduction of Fintech and digital banking in India has promoted financial inclusion<sup>43</sup> by allowing people to utilize banking services via online and mobile platforms, thereby Reducing the distance between the consumer and financial institution.<sup>37</sup> This study aimed to provide valuable insight due to the challenges and opportunity presented by Fintech and digital banking integration in India.

### **1.1 Statement of Problem:**

The problem is Navigating the Digital Frontier. A comparative analysis of Fintech and digital banking examines and compares the impact and effectiveness of Fintech and digital banking in navigating the challenges in opportunities presented by the digital frontier. It's basically in the financial industry. The problem being addressed is understanding how Fintech and digital banking are shaping the financial industry, including their role in traditional banking services, transaction security, and speed. And cost efficiency.

### **1.2 Objective of the study:**

1. To Provide an overview of the FinTech and Digital Banking landscape in India.
2. To Analyze the impact of technological innovation on financial inclusion and efficiency.

3. To Assess the role of government initiatives and regulations in fostering innovation and consumer protection.
4. To Explore emerging trends and technologies shaping the future of FinTech and digital banking.

## **2. Review of Literature:**

*(Bhasin & Rajesh, 2021)*<sup>4</sup> This research paper focuses on the challenges and opportunities faced by the Indian banking system in its collaboration with Fintech firms. The Indian banking industry is now experiencing dramatic transformation, shifting from conventional banking to online banking services and financial technology businesses. This Fintech firms are causing. Economic disruption and reshaping of the payment system. Fintech has become a focal point in the banking and financial industry as it integrates traditional banking functions with new financial technology.

*(Dabbeeru & Rao, 2021)*<sup>9</sup> This paper presents a concise overview of commonly used digital technologies such as Artificial intelligence, machine learning, blockchain, and pick data explore their application in the banking and financial service industry. Fintech solutions like fraud prevention and detection., Portfolio Management, Loan Approval Processes, programming, Robotic Process Automation, Digital Payment, Insurtech, and Regtech are analyzed within BFSI.

*(Sarkar, 2021)*<sup>33</sup> The paper examined the Evolution of Indian banks via the prism of historical and economic changes, from social and development banking to digital financial inclusion. They considered the based-on information financial service, that government changing role, and the infrastructure needed. A completely digital banking and payment system is used in this study. This paper also identifies how digital financial inclusion has effectively reached the underprivileged and those without bank accounts in India. They also examined the experience of other emerging nations.

*(Kukreja et al., 2021)*<sup>21</sup> This article delves into the academic literature on digital and information technology development in India's banking industry. The significant advancement in digital technology has revolutionized bank operations, leading to innovative approaches to conducting business, for instance. Digital banking has evolved to offer a wide range of products, including deposits, ATMs, debit cards, mobile payments, and more. Increasing competition and

challenges and countering by banks compel them to adopt a new digital model Provide unique value propositions.

### **3. Research Methodology:**

This study focuses solely on qualitative data for entail the conducting through literature review and analysis the case study to understand the integration of Fintech and digital banking in the Indian context. This qualitative approach allows for nuanced examination of the subject matter, considering factors such as regularity framework, innovation and consumer perceptions. By synthesizing information from academic sources and real-world examples.

### **4 Finding and Discussion:**

#### **4.1 Overview of Fintech and Digital Banking Landscape in India:**

Fintech and digital banking integration in India have proven to be important components of the nation's financial environment.<sup>7</sup> India has one of the world's fastest-growing Fintech markets, with an adoption rate of 87%.<sup>12</sup> Fintech companies that provided. Financial services in distant locations are mostly to blame for this high adoption rate.<sup>21</sup> It also improved the client experience and provided a creative financial solution. India Financial Institution have also partnered with the Fintech companies.<sup>20</sup> Many advantages have resulted from combining Fintech and digital banking for both Consumer and financial institutions.<sup>32</sup> These advantages include better performance, lower costs, higher revenue, easier access to financial services for those who were previously underbanked or unbanked, peer-to-peer lending, marketplace lending, and digital currency.<sup>8</sup> Mobile payments is an example of creative solutions that have surfaced. In India, fintech integration and digital banking have had a huge influence, democratizing access to financial services, fostering economic expansion, and increasing financial inclusion.<sup>36</sup>

#### **4.2 Financial Inclusion through Fintech and Digital Banking.**

In recent years, India has experienced notable advancement in financial Inclusion and Digital Banking, largely populated by the bordering Fintech sector. The World Bank's Global Findex Databases indicates a substantial increase in the percentage of people with bank accounts, rising from 35% in 2011 to 80% in 2017,<sup>38</sup>

reflecting successful initiatives. As Broaden banking accessibility, this upward trajectory is corroborated by the sharp growth in digital payment transactions, soaring to 69.4 billion in the fiscal year 2021-2022 from 32.4 billion in 2019 – 2020, as per the Reserve Bank of India (RBI).<sup>28</sup> Furthermore, mobile banking transactions witnessed are remarkable 148% year-on-year surge in 2021-22, according to the National Payment Corporation of India (NPCI).<sup>39</sup> The Fintech sector has been instrumental in driving this Evolution, attracting substantial investment totaling \$ 5.2 billion across 335 deals in 2021, As outlined in the KPMG Pulse of Fintech report.<sup>29</sup> Government Initiatives such as the Pradhan Mantri Jan Dhan Yojna (PMJDY) have also made significant strides, opening over 570 million bank accounts by January 2023, as indicated by the Ministry of Finance.<sup>27</sup> Simultaneously, the digital lending platform disbursed loans worth \$53.8 billion (about \$170 per person in the US) in 2021-22,<sup>11</sup> underscoring fintech roles in enhancing credit accessibility. The dominance of the Unified Payment Interface (UPI) as a digital payment mode is evident in the transactions. Volumes. Surpassing 5.8 billion in March 2022, reflecting a 92% year-on-year growth, according to the National Payment Corporation of India (NPCI).<sup>17</sup> Moreover, various financial literacy programs laid by entities like the Reserve Bank of India (RBI) and the National Institutions of Security Market (NISM) Have equipped millions with the essential financial acumen, collectively understanding the transformative impact of the Fintech and digital banking integration in the fostering the financial inclusions, innovation and economic growth in India.<sup>24</sup>

#### **4.3 Technology Innovation and Disruption:**

Technology innovation is the driving force behind the transformation of India's, Fintech and the digital banking sector, facilitating the creation of novel products, services and business models that enhance efficiency, accessibility, and convenience for consumers and businesses.<sup>35</sup> This dynamic landscape of Innovation compasses a wide array of advancements. That is fundamentally reshaping the delivery and consumption of Financial Services. Mobile payment and digital wallets are exemplified. Such as Paytm and Phone Pay. Google Pay has witnessed a surge in popularity after COVID-19. According to data from the National Payment Corporation of India (NPCI), mobile payment transactions surpassed



6.6 billion in March 2022, marking a significant uptick from previous years.<sup>26</sup>

Moreover, peer-to-peer lending platforms like Faircent and Rupecircle have democratized access to credit, collectively facilitating over \$250 million in loans in 2022.<sup>19</sup> Blockchain technology is also gaining Momentum for its potential to revolutionize digital payment and trade finance, as evidenced by initiatives like the NPCI blockchain-based platform.<sup>30</sup> Artificial intelligence and machine Learning Are driving transformative changes, with AI-powered chatbots and robo-advisors improving customer services and financial guidance.<sup>44</sup> These statistics underscore the pivotal role of technological innovation in reshaping India's economic landscape, fostering greater accessibility, efficiency and Inclusivity in financial services.

#### **4.4 Regularity Challenge and Compliance Burdens:**

India's, Fintech and digital banking sectors operate within a complex regularity environment characterized by a multitude of regulation and compliance requirement. While regulatory oversight is essential for safeguarding consumers and maintaining the financial system's stability,<sup>3</sup> navigating the regularity landscape can cause significant challenges for the industrial player.

India's Fintech and digital banking sector grapple with myriad regularity challenges and compliance burdens within the country's intricate regularity framework.<sup>42</sup> While Crucial for consumer protection and financial stability, regularity oversight presents a complexity stemming from fragmentations among the various regularity bodies like the Reserve Bank of India, Securities and Exchange Board of India, and Insurance Regularity and Development Authority of India.<sup>33</sup> These fragmentations often resulted in overlapping regulation and jurisdictional conflicts, exacerbating compliance.<sup>4</sup> Moreover, the regularity landscape continually evolves to Accommodate technological advancement and emerging risks, necessitating constant adapting from industry players.<sup>14</sup> Compliance with stringent requirements such as KYC norms. AML Regulations, Data Protection Laws, and Cybersecurity Standards impose substantial burdens on fintech startups, digital banking providers and traditional financial institutions.<sup>40</sup> This compliance obligation. Entails significant investment in technology,

Infrastructure and Regularity. Compliance program, Posing challenges to smaller players with limited resources. However, Regularity, sandboxes and innovation hubs established by the Regularity authorities offer a glimmer of hope by providing A controlled environment for testing innovative solutions and fostering regulatory compliance.<sup>16</sup> Through proactive engagement, collaboration and adoption of the robust compliance framework, stakeholders aimed to navigate the regularity maze effectively while promoting innovation in the rapidly evolving digital finance landscape.<sup>41</sup>

#### **4.5 Consumer Adoption:**

Consumer adoption and perception are crucial in shaping the digital banking and fintech path in India. The introduction of innovations from institutions such as NFS, UPI, and Aadhaar has established essential digital Infrastructure for the success of the fintech ecosystem in the country.<sup>10</sup> These advancements have facilitated wider access to financial services, even in remote areas, leading to a high fintech adoption rate of 87% in India compared to the global average of 64%. Initiatives like Pradhan Mantri Jan Dhan Yojana, Pradhan Mantri Vaya Vandana Yojana, and Pradhan Mantri Mudra Yojana have furthered financial inclusion with support from fintech companies.<sup>39</sup> collaborations between traditional and Fintech firms has also enhanced retail banking through digital lending, UPI, and open banking architecture.

Moreover, the COVID-19 pandemic has expedited digital payment adoption while demonstrating the fortitude of fintech models during adversity. Factors influencing consumer embracement of digitization span the availability of its pivotal role, ensuring significant impact on various aspects and making them strategic.<sup>13</sup> Furthermore, digital account openings, faster loan approvals, and seamless fund transfers broaden the efficient customer experience. Fast-tracking operational processes catalyze this inclusive growth that spurs Inclusive Growth within India's economy.

#### **4.6 Case Study**

The case studies illustrate how Digital Banking and Fintech technologies have been used to meet the changing demands of Indian customers. They have aided in developing and uptake digital financial services in India, promoting financial inclusion and

empowerment across the nation by being innovative, convenient, and customer focused.

1. **Paytm**<sup>5</sup>: Initially launching in 2010 as a platform for mobile recharge and bill payment, Paytm swiftly became one of India's top digital payment providers. It uses technology to provide various financial services, including online purchasing, peer-to-peer payments, digital wallets, and ticket booking. Paytm has successfully merged Fintech and digital banking services to meet the demands of millions of Indian customers. Many demographics have widely adopted Paytm because of its user-friendly design and strong security features, which have played a vital role in digitalizing payments in India.
1. **Phone Pe**<sup>18</sup>: These digital payments platform was introduced in 2016 and enables users to easily transfer funds, pay bills, recharge mobile devices, and make online purchases. Phone Pe was acquired by Flipkart in 2016. It gained popularity quickly because of its connection with the National Payments Corporation of India's (NPCI) real-time payment system, the Unified Payments Interface (UPI). Phone Pe is one of India's top Fintech and digital banking platforms because of its cutting-edge features, which include cashback incentives, dividing bills, and requesting money. These features have drawn millions of users to the site. Its collaboration with different service providers and retailers increases its usefulness and helps the nation's digital transaction volume.
2. **Kotak Mahindra Bank**<sup>34</sup> - **811 Digital Banking**: In 2017, Kotak Mahindra Bank introduced its cutting-edge "811" digital banking program. "811" refers to the 8/11-minute digital bank account opening process. In response to the increasing need for digital banking solutions, this effort sought to provide a full range of financial services via mobile applications. With the help of the 811 app, users may apply for loans, invest in mutual funds, create zero-balance savings accounts, make payments, and handle their money easily. The popularity of digital banking in India is being fueled by Kotak 811, which offers its consumers a simple and safe banking experience by using biometric verification and cutting-edge security measures.

3. **Zerodha**<sup>31</sup>: Zerodha is a fintech startup whose online trading platform has completely changed the Indian stockbroking market. Since its founding in 2010, Zerodha has attracted many individual investors with its user-friendly interface and affordable brokerage services. The platform enables users to effectively manage their assets by giving them access to various financial products, such as mutual funds, equities, commodities, and currencies. By providing features like real-time market data, sophisticated charting tools, and algorithmic trading solutions, Zerodha has incorporated technology to expedite the trading process because of its innovative business strategy and commitment to providing excellent customer service, Zerodha has established itself as India's top fintech brokerage platform, advancing the democratization of investing and expanding digital financial services nationwide.
4. **Policy Bazaar**<sup>15</sup>: Policy Bazaar is the biggest online insurance aggregator in India. It provides a platform where customers can compare and buy insurance products from different providers. Policy Bazaar, established in 2008, uses technology to streamline the insurance purchasing process and provide customers access to various insurance products, such as health, life, auto, and travel insurance, all in one location. The platform facilitates informed decision-making by offering customers customized suggestions tailored to their needs and financial constraints. The easy-to-use interface, open pricing, and hassle-free shopping experience of Policy Bazaar have all led to its quick expansion and broad acceptance among Indian customers. Policy Bazaar has driven financial inclusion and expanded insurance penetration in India by automating the insurance purchasing process.

## 5. Conclusion

Navigating India's Fintech and digital banking landscape encompass a multifaceted approach tailored for policymakers, financial institutions, and industry players. Policymakers play a pivotal role in fostering an environment conducive to innovation by crafting regulatory frameworks that balance encouraging fintech growth and ensuring consumer protection. Additionally, policymakers should incentivize collaboration between traditional

financial institutions and fintech startups while investing in digital Infrastructure to support widespread adoption. Financial institutions must prioritize digital transformation efforts, leveraging emerging technologies to enhance operational efficiency and customer engagement. Fintech entails upgrading technology infrastructure, embracing cloud computing, and implementing robust cybersecurity measures to safeguard sensitive financial data. Collaborating with fintech firms through strategic partnerships enables financial institutions to tap into innovative solutions and expand their service offerings.

Moreover, fostering a customer-centric approach is paramount as financial institutions strive to deliver personalized experiences and meet the evolving needs of digitally savvy consumers. Industry players, including fintech startups and digital banking platforms, should prioritize continuous innovation, investing in research and development to drive product differentiation and stay ahead of market trends. Prioritizing security and compliance remain imperative, with industry players implementing stringent measures to mitigate cyber threats and ensure regulatory adherence. Furthermore, initiatives aimed at educating consumers about the benefits and risks of digital financial services are essential for fostering trust and promoting widespread adoption. By embracing collaboration, innovation, and customer-centricity, stakeholders can navigate India's dynamic fintech landscape and drive sustainable growth in the digital era.

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## Chapter: 36

# A Brief Study of Digital Payments in the Pradhan Mantri Awas Yojana (PMAY)

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### **Abstract:**

The Pradhan Mantri Awas Yojana (PMAY) is a flagship housing scheme of the Government of India aimed at providing affordable housing for all by 2022. The scheme has made significant strides in achieving its objectives, with millions of houses constructed and allotted to beneficiaries. One of the key components of PMAY is the use of digital payments to streamline the disbursement of subsidies and other financial transactions. This research paper aims to study the impact and effectiveness of digital payments in PMAY, analyzing the benefits, challenges, and future prospects of digital transactions in the housing sector.

**Keywords:** Pradhan Mantri Awas Yojana, PMAY, Digital Payments, Subsidy Disbursal, Affordable Housing.

### **Introduction:**

The Pradhan Mantri Awas Yojana (PMAY) was launched in 2015 with the objective of providing affordable housing to the urban and rural poor. One of the key features of PMAY is the provision of interest subsidy for home loans, which is directly credited to the beneficiary's bank account. This has necessitated the use of digital payments to ensure timely and efficient disbursal of subsidies. The Pradhan Mantri Awas Yojana (PMAY) is a government initiative aimed at providing affordable housing to all citizens by 2022. Digital payments play a crucial role in the implementation of PMAY, particularly in subsidy disbursal and loan transactions. A study on digital payments in PMAY highlights their positive impact on efficiency, transparency, and financial inclusion.

Greening of PMAY-G aims at contributing towards a cleaner and healthier India. PMAY-G encourages adoption of, as far as possible, green designs and technologies, appropriate to the local culture and geoclimatic conditions (including multi-hazards), use of local material minimizing carbon foot print and that the houses are

comfortable. It also aims at adding to local job creation,. It is envisaged that the green PMAY-G designs and technologies will influence rural housing in general and enable rural India to emerge with sustainable housing with green and disaster resilient features in the future. The states may take steps to encourage willing beneficiaries to adopt green technologies.

PMAY-G was initiated in November 2016 with a target of completing 2.7 crore houses. So far, according to the database maintained by the Union Ministry of Rural Development, 1.8 crore houses have been constructed, which is 67.72% of the target. As per PMAY(U) guidelines, the size of a house for Economically Weaker Section (EWS) could be upto 30 sq. mt. carpet area, however States/UTs have the flexibility to enhance the size of houses in consultation and approval of the Ministry.

### **Review of Literature:**

Review of literature is a logical requirement to identify the research problem and need of research. A close example of the studies would also help us to locate the gap between the literature and the prescription of researcher and identify new dimensions to gear up the detail procedure of the study under consideration. Since last two decades the Indira Awaas Yojana is going on for the welfare of the families Below Poverty Line. Many thinkers, philosophers, writers and researchers have researched in detail about the Indira Awaas Yojana and expressed their views based on the facts. The Indira Awaas Yojana is very important scheme for rural area. Rural Development and Indira Awaas Yojana should be taken into consideration while taking review of literature.

1. **Sipra (1991):** has researched in to the role of the Delhi Development Authority (DDA) in solving the growing problem of urbanization for Delhi. The basic objective of DDA's was land development and housing policy and providing maximum shelter to the urban poor's. But he revealed that the organization's activities had in fact subsidized. He rich much more than the poor level.

2. **Hanish and Williams(1994):** has defined in his analysis the major issues regarding third world urban environment and their housing problem. They recommended the need for strong physical planning controls, to reduce the threats of environmental hazards to urban residents or housing. According to the study of them in order

to cope with future housing demand, the strategy should be to reap the benefits of both the social impetus for personal investment and the inherent cultural skills for building one's own home. It is the most

3. **Singh (1999):** He has defined in his study on the housing shortage in India and explained the role of the Indira Awaas Yojana scheme which is engaged for solving the problem of housing shortage. He observed that the expenditure incurred and the number of houses built under the scheme is progressing but it is also a fact. He found that the condition of constructed houses under this scheme is too low quality of live and secondly poor finance is available for the built of house and is no where to reach near solving the rural housing problem.

4. **Misra and Rao (2000):** He has observed that the housing sector in India is governed by hundreds of laws, and most of which have been enacted several decades ago. As per themes opinion in the era of deregulation, the corporate sector participation and the community involvement, most of these laws have come under serious scrutiny. They have revealed that in today's context, it has become extremely important to protect the housing consumers while ensuring improved access to all to housing. One of the important means to do so is using legislation as a tool. Consumer Protection Act (CPACT) is one such important legislation that gives power to the consumers to initiate action and seek speedy redressal against the erring suppliers.

5. **Mahipal (2005):** He has studied about the role of Panchayat Raj Institutions in rural areas. He concluded and suggested, that Panchayat themselves should come forward to provide shelter for villagers in the shortest period to meet the requirements of houses in rural areas, in addition to central and state sponsored housing schemes.

**Objective:**

1. To study the implementation of digital payments in PMAY and evaluate its impact on the efficiency and transparency of the scheme.
2. To study identify the challenges faced in the adoption of digital payments and suggest ways to overcome them.



<b>Rank</b>	<b>Ministry</b>	<b>Score</b>
1	Ministry of Housing and Urban Affairs	87.03
2	Ministry of Petroleum and Natural Gas	83.56
3	Department of Youth Affairs	83.25
4	Department of Food and Public Distribution	79.98
5	Department of Pharmaceuticals	79.43
6	Department of Higher Education	74.70
7	Department of Fertilizers	73.04
8	Ministry of Skill Development and Entrepreneurship	72.60
9	Department of Rural Development	70.01
10	Ministry of Labour and Employment	69.32

Source: DBT Performance Rankings of Central Ministries

Direct Benefit Transfer (DBT): The transfer of the Central Assistance and State/ULB share to the beneficiaries of BLC vertical of the Mission is being done by States/ULBs through DBT mode where the instalments are credited directly into the beneficiary's bank account as per construction stage completed and geo-tagged.

### **Belapur Housing case study**

Belapur housing is one of the early planned settlement in Navi Mumbai by Charles Correa and his team to ease pressure on Mumbai. The project was commissioned by CIDCO in 1983, and it took three years to get ready. Its prime aim was to achieve high density with low rise housing. Each dwelling unit was planned on its own plot with an idea of incremental growth. To maintain social economic integration, different plot sizes (with 5 types range from 45m to 75m) were worked out to facilitate different economic sections of society. Incremental construction accommodated the growing aspect of family size and economic potential. Hierarchy of open, semi-open and covered spaces was maintained from whole to part i.e. from site to an individual house. Housing cluster were grouped around an court of size varying from 8X8m to 12X12m,

which further are accommodated around a community space of 20X20m. Construction material and techniques were both local, which has resulted in self-help during construction, alteration and maintenance. Facilities like toilets are provided adjacent to each other for saving on plumbing, and sanitation. So the project not only focused for providing high-density low rise housing but also considered on other key factors like economic status, social interaction, neighborhood watch, self-help, cost cutting and future incremental option determined as per once growing capacity and need. Project-learning is relevant till date. Source: The Architectural Review, 2015.

**Methodology:**

The study will be based on a secondary data. Secondary data will be gathered from government reports, academic papers, and other relevant sources.

**Analysis:**

**The analysis will focus on the following aspects:**

Adoption of digital payment methods by beneficiaries and stakeholders. Efficiency and transparency in subsidy disbursal through digital payments. Challenges faced in the implementation of digital payments in PMAY. Impact of digital payments on the overall effectiveness of PMAY. Future prospects and recommendations for enhancing digital payments in PMAY.

**Key Findings:**

**Efficiency:** Digital payments have streamlined subsidy disbursal and reduced processing times, leading to faster implementation of housing projects.

**Transparency:** Digital payments have enhanced transparency by providing a digital trail of transactions, reducing the risk of fraud and corruption.

**Financial Inclusion:** Digital payments have promoted financial inclusion by enabling beneficiaries to access and manage their funds conveniently.

**Challenges & Recommendations:**

**Awareness:** Lack of awareness among beneficiaries about digital payment methods remains a challenge.

**Connectivity:** Inadequate internet connectivity in rural areas hinders the smooth implementation of digital payment systems. Resistance

to Change: Some beneficiaries and stakeholders may be resistant to adopting digital payment methods due to familiarity with traditional payment methods.

**Awareness Campaigns:** Conducting awareness campaigns to educate beneficiaries about the benefits and usage of digital payment methods. **Infrastructure Development:** Improving internet connectivity in rural areas to facilitate seamless digital transactions.

**Capacity Building:** Providing training to beneficiaries and stakeholders on how to use digital payment methods effectively.

Overall, digital payments have significantly improved the efficiency and transparency of transactions in PMAY. Addressing the challenges and implementing the recommendations can further enhance the role of digital payments in achieving the objectives of PMAY.

### **Conclusion:**

The strategies outlined in PMAY 2015 are hugely dependent on the government and its fiscal capacity to finance projects. Although the vision statement of the policy emphasizes on private participation but the strategies to uphold this vision is insufficient. Attaining 18.78 million housing shortage is extremely difficult with direct assistance from the government. Alternative land and financing mechanism discussed prior might hold the key for remedy towards India's housing woes if applied innovatively.

Digital payments have played a significant role in streamlining the subsidy disbursal process under PMAY. While there have been challenges, the overall impact of digital payments has been positive, leading to greater efficiency, transparency, and accountability in the scheme. However, there is still room for improvement, and efforts should be made to further promote digital payments in PMAY to ensure its continued success in providing affordable housing for all.

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**Chapter: 37**  
**E-Banking: An Overview**

**Sapana A. Pupulwad**

**Abstract**

India banks are still in the process of exploring the potential of the internet as a medium for the banking as the technology heading towards more business there are potential prospects of internet banking. Banking India today not only provides information of its service or request services such as checks books statement etc. ravite reference to a particular branch in India bank still do not have a single to online internet banking service available. According to Lawrence elphonsocorporate communication manager of Satyam info will Ltd company inviting into providing internet base solution for bank you can request for transfer of fund from your own account to another account in the same name in the same brands and may extend into another branch that is the extent of internet banking in India

**E-banking**

Biggest challenge before the Indian banking industry is that of changing their functioning and operation online with the internet and other it base technology for breaking.

The last few years have probably seen the most significant changes in the Indian banking. The liberalization of interest rate regiment the proliferation of landing as any labelling force have made it possible for banks to come out with the house of initiative product and distribution strategies.

The recent liberalisation trained and globalisation has brought many changes in business practices and economic system. Consequently the banking sector and other financial institution are also affected by new reality is following globalisation.

Information technology made its presence failed in banks in India a few decades ago. Software packages using banks work on stand alone systems and they are not integrated.

**Objectives of study**

1. Reduction in bank costs.
2. Satisfaction of account holders.
3. Increasing Bank account holders.

4. Identification and direct contact family of account holders.
5. Curb corruption and financial crime.

### **Methodology of study**

The studies based on analysis of digital banking its advantages and limitations with with the help of secondary data collection.

**Secondary Data-** The secondary source of data banking books, e-commerce books , internet and research papers etc.

### **Definition of e-banking:**

The internet has the potential to transform the inter economic and structure of banking and personal finance so much so much traditional banking Mason become unable from the standpoint of cost time and convenience.( R.G.BHATNAGAR)

### **Traditional payment methods**

Specially with cheques, these are not adequate for real time payment interaction. Real time payments means the consumer's web delivers payment instructions to a merchant who forwards those instructions to network Bank. The bank then authenticates the individual and disburses funds to the merchant. The merchant delivers the purchase product upon customer verification.

Two fundamental assumptions are made in the case of offline payment methods.

- The transacting parties will be in each other physical presence
- There will be a sufficient delay in the payment process for detection of fraud overdraft and other problems to be identified and corrected. This assumption are not valid in electronic commerce.

### **Problems with traditional payment methods**

The traditional payment method does not work online. The reasons are due to:

- Convenience
- Coverage
- Security
- Eligibility
- Support for micro transactions.

### **Components**

**The components of e-banking are:**

- Internet/Intranet/extranet
- Electronic data interchange

- Electronic mail
  - Electronic fund transfer
  - Smart card
1. **Internet/Intranet/extranet:** Internet/Intranet/extranet are applications that use web based technology of graphical user interface to facilitate potential online interaction and communication.
  2. **Electronic data interchange:** this is an application and an exchange of information using a standard format to structure the financial transaction of data
  3. **Electronic mail:** exchange of mail messages by way of computer systems are connected over communication networking. These are sent and received at the user's convenience
  4. **Smart card:** smart card is a plastic credit card with a computer chip embedded into and capable of storing data which can be retrieved by a separate reading device.

Number of its components manufacturers launch a wide range of products and services providing solutions for banks and financial institutions in the financial sector. The products include web, ATM, interactive kiosk for eCommerce and inter-application check, processing systems and cash dispensers and millennium cash dispensers.

Online retail banking services include the following:

- Saving account
- Current account
- Fixed deposit
- Online payments and other retail banking products
- The surge in the demand for E-Commerce related services is a result of the rapid growth in the internet and fundamental changes in the business paradigm.

### **E-Banking issues and Challenges**

Internet banking is a new concept in most regions and has been widely accepted but with numerous challenges both on the technology and business side.

## **Technology challenges**

The internet is a public Network and financial transaction that he send on this network could be derive or altered at numerals location. Security standard such as SCL and the public infrastructure have emerge as the defaults to address the issue.

For enabling either information access or transactions banks have to put a website. There is data to suggest that a most hacking that happens is targeted at breaking into website security. Typing hackers break into a website first and then try to get access to internal system from their. This is for as the most serious security threat for all banks which need to be followed in order that the website is secure from all such threads. No security solution can of a pinakia for all loan threads but they do notify a large part of the risk involved.

## **Business challenges**

The transaction cost of the internet have been stated to be the lowest of all channel. However the total volume of benefits to the bank will become significantly only when a large number of transaction are rooted over the web that then over other traditional channels. This requires that the bank have a large chunk of internet savvy customer who can exploit this medium to eats full. The internet and the interactivity have called the tension of mania layman to the extend that in many places the need of the internet itself is driving the cell of PCs. It is a matter of time before a large chunk of the user population become net savvy.

## **Advantages**

The potential benefit for bank conducting their business online are many fold with decrease it transaction cost and access to new customer providing suspension of conducting online business how were the update of internet banking with the country has been slowly with only a handful of layer providing internet banking service. Latest take a look at some of the benefits emerging from internet banking

- Internet banking enables nris in particular to monitor their local bank account from broad transfer money to joint accounts hell by them in India send money to parents back home India and pay school fees etc

- The global means of banking not only provide enormous convenience but the money starts here earning returns faster than the conventional method where returns were lost for the period that the draft was in transmission and clearing
- Small business firm writing about 100 checks some month including payroll check cost more purchase in paper postage and employed time in contrast more electronic bill payment software cost less cheque. Electronic bill payment is one of the key service offered by the banks.
- If offers and assure security to get electronic statements printed or downloaded send shakes payments and transfer funds between two or more accounts.
- Permits better efficient and timely accurate management of funds and payments in real time.
- All financial data can be obtained at any time 24 hoursday and 7 days per week.
- Internet banking service provider remote banking service and facilitates information needed by online customers.
- Freedom and access to bank anytime and anyway.
- Offers range of Cyber banking options including the view of account statements etc.
- Avoid to drive long distance is to approach neighbourhood banks.
- Heaters future customers who generate potential business for the banks.
- Better fund management
- Customer can create the details of account and transactional details instantly.
- Banks can target and approach both individual and NRIs through the net.

### **Limitations of E-Banking**

Customers going for online banking prefer seeking complete satisfaction and maximum benefit particularly in India where he has series of questions regarding the level of security and benefits from online banking some of the limitations are:

- Compared to other countries banks and financial institutions in India are still at the basic stage of publishing rather than interactive and are in the small way making their presence field



in the area of providing financial. The banks are eat to get themselves for providing complete and satisfactory online transaction and service.

- Providing complete transaction and service involving huge investment in web development that will completely in integrated the website with back and systems including customer database and applications.
- Banks have not extended the facility of third payments where by account holders are in a position to make payments to predetermine parties through the net.
- On the other hand banks have not launch the Internet payment gateway for handling net transactions of their clients.
- The Indian banking system including non banking financial institution are not working towards comprehensive interactive financial services in collaboration with some international organisation like IBM which would provide a state of the art local platform for online banking. This would greatly help banks to handle cross border deals in all currency.
- Presently, banks working with centralised data have dist distinct edge and no processing is done at local branches. So informationlessly across different banking channel. The lack of centralise database system is one of the main handicappeds in the case of online banking.
- There is no facility for interbank funds transfer through the net because the cyber laws in this regard are still not in place in smooth catch management is not possible.
- There are many banks who invest in cost effective strategies to establish themselves in online banking considering the risk involve in dealing with others money.
- Lack of awareness is she has one of the biggest road blogs for successful online banking. The problem is more than acceptance. Effective and wide media efforts in publishing internet banking need to be emphasize.
- Internet access in India is tilled towards corporate access and their for people Axis the internet more from offices than from homes. But in the US access to the net is more tilled towards homes use

## **Conclusion**

Today E-Banking have too much of importance e banking is the gross of power now e banking has been indivisible item. In the method of e-banking is save our time and the work will be done fast.

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## Chapter: 38

# User's Perception and Challenges Towards Use of Plastic Money and Cashless Transactions

Dr. Swati Mehta

### Abstract

Since its introduction in the 1950s, plastic money and cashless transaction have been a necessary means of accessible funds, lowering the danger associated with managing large sums of cash. Coins have given way to paper money over time. The cashless Transaction has changed significantly in response to the technology industry's explosive growth and rapid expansion. Efficient electronic payments, sparked by different kinds of plastic cards, have replaced cumbersome and costly coin and note handling in the twenty-first century. In recent years, the global financial landscape has witnessed a significant shift towards cashless transactions and the adoption of plastic money. This paper provides a comprehensive review of the literature on cashless transactions and plastic money, exploring their evolution, benefits, challenges, and future prospects. The review synthesizes findings from various scholarly articles, reports, and industry publications to offer insights into the factors driving the transition to cashless economies. The survey was conducted in Surat City and in total 100 respondents were surveyed to achieve the objectives. The data was analyzed with the help of frequency distribution, percentages, mean and standard deviation. To test the hypothesis, Ttest, ANOVA and Regression techniques have been used. The findings were that there is still scope of improvement in the plastic money infrastructure and it is suggested to make use of plastic money wherever possible, also pay due attention to the security of your plastic cards. The study has also examined the challenges faced by user when they make cashless transactions.

**Keywords:** Cashless transactions, plastic money, digital payments.

### 1) Introduction :

In the last few years, the Transaction system has transitioned to a cashless system, and we now pay for our day-to-day transactions using credit or debit cards. Nowadays, as the world has gotten more digitalized, our marketing perspectives have shifted as well. We have placed orders for things online and Internet banking service provides payment facilities for online shopping. One of the most important

variables affecting the cashless transaction system is mobile technology and the other is the web (internet). The ATM (automated teller machine) revolutionised the financial sector, allowing banks to be available 24X7 for transactions. The most important banking functions, such as deposit and withdrawal, are available 24 hours a day.

To successfully navigate this transition, stakeholders across various sectors, including banks, telecommunications companies, retailers and startups, must collaborate to develop innovative solutions that address genuine customer needs. This involves leveraging next-generation technology to create convenient, secure, and user-friendly payment systems

Deep customer involvement will be essential in this process, as businesses need to understand and cater to the preferences and concerns of their clientele. Educating customers about the benefits of cashless transactions and addressing any apprehensions they may have regarding security and privacy will be crucial for widespread adoption.

Furthermore, partnerships between different players in the ecosystem will be instrumental in scaling up these solutions and ensuring their accessibility to a wide range of users. By working together, stakeholders can create synergies that drive innovation and promote the adoption of cashless payments. Overall, while the transition to a cashless economy presents challenges, it also offers significant opportunities for prosperity and modernization. By embracing change, fostering innovation, and prioritizing customer needs, businesses and industries can pave the way for a more efficient and inclusive financial ecosystem.

The increased consumer spending among India's young, tech-savvy population, coupled with the accelerated shift from cash to digital payments due to COVID-19, has indeed sparked a significant initiative towards embracing digital payment systems. However, it's important to recognize that achieving widespread adoption and penetration of digital payment systems throughout India remains a significant challenge. Rural areas, cities, towns, and villages still heavily rely on cash transactions, particularly in regions where digital infrastructure and awareness are limited. It will take time and concerted efforts to overcome barriers to adoption in these areas.

## **2) Review of Literature**

**Worthington (1996), “Smart Card and retailer-who stand to benefit?”** Paper describes the major current payment options which are open to consumers, and accepted by retailers with a review of the costs and benefits of each payment option. Retailers, as the merchant acceptors of payment by suffer from the introduction of the smart card. Article sets out to explore the pros and cons of the smart card for retailers. The introduction of the smart card will not eliminate any of the existing method of payment and it is probable that the smart card will even introduce new means by which nonfinancial data, such as purchase patterns, can be collected and exchanged. There will also be substantial costs involved for retailers such as upgrading thousands of stores and head office systems, replacement of point-of –service terminals, training to thousands of cashiers for the acceptance of smart cards. The smart card could be a useful addition to the existing payment options at the point of service. It could offer retailers to access to new delivery channels and better communication channels and help to maintain relationship with customers.

**Nirmala R. Sonu (2015): “ANALYSIS OF THE USE OF PLASTIC MONEY”** highlighted the advantage of instant transaction as one of the major factors favouring the use of plastic money over real money by the population today. It has already been highlighted by the study that convenience of not carrying cash and ease of transaction is one of the major psychologically influencing factors that encourage the use of plastic money instead of real money. Additionally, the results of the study have also stressed upon the convenience and ease of use while paying or shopping by plastic money. The saving of time and the fact that the plastic money seems to be more portable also seems to further the cause of a possible change in the scenario of money usage in the economy. On the other hand, Security comes forward as a major cause for concern for the population using plastic money. Therefore, it is easy to conclude that the population is ready as ever to use plastic money at a greater level due to its high levels of ease and convenience. **George (1995),** titles **“The card majors lead the way”** shows that VISA and MasterCard play a major role in any international payment system. Both VISA and Master Card act also as franchisers, lending

their name to member banks' card and acting as guarantor of payment to merchants willing to accept the cards. For this and for handling transactions, VISA and Master card charge a fee which varies from country to country, but is approximately 3 cents (90 paisa) per transaction. They are card clearing agencies. VISA and Master card each have nearly 22000 banks all over the world as their members and handle several million transactions each day. This gives them a transaction handling capability unmatched by any individual bank. They are not credit card companies but function on the line to provide a global network that allows authorization, clearing and settlement of card transactions, both of credit and debit cards. **Radhakrishan (1996)** study on "DEBIT CARDS" shows that the debit cards also have found wide acceptability than credit cards because of assurance of payments to retailers, switching of cardholders to debit card because of using interest free period to avoid high interest cost, annual charges as compared to debit cards etc. The study shows that the growth of service industry in the country, electronic fund transfer, point of services offers a large potential for banks to cutting down cost associated with the paper-based clearing and payment services. The introduction of debit cards can take place subsequently and the objective should be to attain a critical mass in issuing number of such cards so that the operation becomes cost effective.

**Subhani (2011)** conducted a study on "Plastic Money/Credit Cards Charisma for Now and Then". The study was based to find out the charisma of plastic money, its usability and affordability and its impact on its preference to use. The research found that the preference to use of plastic money/ credit card has its pros and cons with its usability and affordability. According to the consumer behaviour, plastic money is a form of conditioning and acts as a stimulus which qualifies a consumer to spend. The study shows that the preference to go for plastic money has a positive association with the easy use of plastic money because the precept of credit card usability is linked with a psychological phenomenon that people are likely to spend less with credit card and spend more with the same amount of cash on hand in the same budget and this precept also linked with the consumer self-convenience, i.e. convenience and easy use which delves into spending. **Johnson (2005)**, title "Recent

**development in credit card market and the financial obligation ratio”** exhibits that over the past fifteen years, U.S. household in the aggregates have devoted an increasing share of their after-tax income to the payment of financial obligations. Much of the increase is attributable to a rise in the level of credit card debt, which has raised the share of households’ aggregate after tax income that is devoted to credit card payments. This article argues that three important developments in the credit card market over the period account for most of the rise in credit card payments relative to income and played a strong role in the rise of the total financial obligation ratio (FOR). First, improvements in credit scoring technology and the advent of risk-based pricing of credit card debt have increased the share of house-holds particularly lower income households with a credit cards. Second, in the 1990’s, credit card interest rate begins to vary with changes in broader market interest rates, which in turn led to an especially pronounced decline in credit card interest rates turned sharply lower. **Park and Burns (2005)**, title **“Fashion orientation credit card use, and compulsive buying.”** The study was to identify the direct impact of fashion related factors on compulsive buying and the indirect impact of fashion-related factors on compulsive buying through credit card use. It was found credit card usage to be the most influential factor followed by expenditure on fashion goods. Research shows that fashion orientated consumers are heavy credit card users. Consumers who tend to have fashion leadership and know the importance of being well dressed might use their credit card more while those who have PERCEPTION OF PEOPLE TOWARDS PLASTIC MONEY anti-fashion attitude are least likely to use their credit cards. The authors observe that the credit card is the most significant factor in encouraging compulsive buying and suggest that since other antecedents of such behaviour are hard to pin down, regulatory action should focus on the control of credit.

**Nirmala. R. Sonu (2015): “ANALYSIS OF THE USE OF PLASTIC MONEY”** highlighted the advantage of instant transaction as one of the major factors favouring the use of plastic money over real money by the population today. It has already been highlighted by the study that convenience of not carrying cash and ease of transaction is one of the major psychologically influencing

factors that encourage the use of plastic money instead of real money. Additionally, the results of the study have also stressed upon the convenience and ease of use while paying or shopping by plastic money. The saving of time and the fact that the plastic money seems to be more portable also seems to further the cause of a possible change in the scenario of money usage in the economy. On the other hand, Security comes forward as a major cause for concern for the population using plastic money. Therefore, it is easy to conclude that the population is ready as ever to use plastic money at a greater level due to its high levels of ease and convenience. **Loewenstern and Hafalir (2012)** conducted a study on “**The Impact of Credit Cards on Spending**”. The study focused on two types of customers, revolvers (who carry debt) and convenience users (who do not carry debt), and measured the impact of payment with credit card as compared with cash by an insurance company employee spending on lunch in a cafeteria. It was found that there was change in the diner’s payment medium from cash to a credit card when an incentive to pay with a credit card was given. It was then found out that credit cards do not increase spending.

### **Statement of Problems:**

Cashless transaction has been in one form or another in the world. Every economy in the world has adopted it. The proportion might be different. In India it was supposed to high class tool. The after scenario of demonetization has specially International Journal of Commerce and Management Research 93 came with atmosphere which is conducive for cash less transaction. The segment of people which were not using cashless transaction was asked to join cash less movement. This is not an easy task. There are some fundamentals and routine issues regarding cash less system. There are major burden on economy for cashless Transaction , representing approximate 1.5% of GDP . As a researcher need was felt to analyses these issues and found some solution to encourage it furthermore.

### **3) Research Methodology :**

The research study is Exploratory in nature. The Study is been carried out by taking a survey of 100 respondents by convenience Sampling Method from a city of Surat using structured questionnaire



and interview technique. Secondary data is collected through reference books, research papers, articles, and websites.

**4) Objectives of the study:**

1. To know perception of users towards plastic money and cashless transactions.
2. To study the relationship between Gender And Usage of plastic money and cashless Transaction
3. To study the relationship between Different Age Group people And Usage of plastic money and cashless Transaction
4. To know the challenges faced due to cashless Transactions.
5. To Measures relationship Between Gender and challenges faced while using Plastic money and Cashless Transaction
6. To Measures relationship Between Age Group People and challenges faced while using Plastic money and Cashless Transaction

**5) Significance of study:**

This study on plastic money and cashless transactions is essential for comprehending user behaviour, improving security measures, fostering financial inclusion and guiding businesses and policymakers in adapting to technological advancements. The findings contribute to informed decision-making, economic growth and innovation in the evolving financial landscape.

**Hypotheses :**

Ho:- there is no significant difference between the use of cashless transaction between male and female

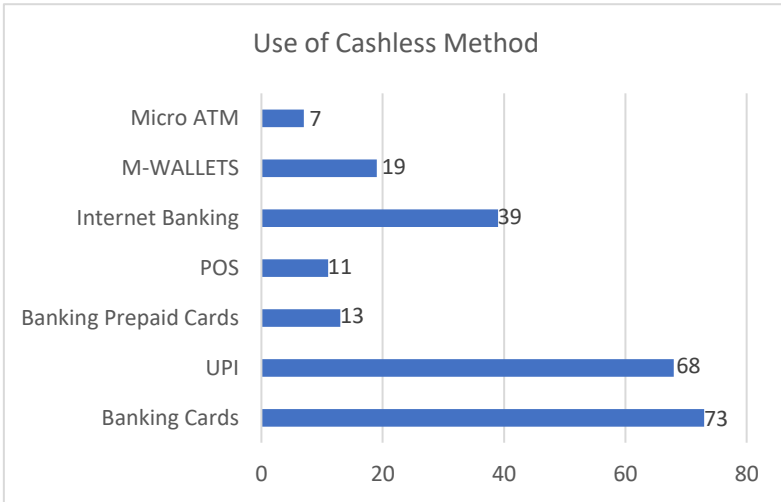
Ho:- there is no significant difference between the use of cashless transaction among Various Age people

Ho:- According to Gender the challenges faced while using Plastic Money and cash less transaction are not same

Ho:- According to various Age people the challenges faced while using Plastic Money and cash less transaction are not same

## Data Collection and Analysis :

Cashless method/card usually make use for transactions:



Above Chart shows the provided data presents a breakdown of banking and financial transactions across various categories along with their respective counts. "Banking Cards" leads with 73 instances, likely encompassing physical debit or credit cards issued by banks. Following closely is "UPI" with 68 instances, representing transactions through the Unified Payments Interface, a real-time payment system in India. "Banking Prepaid Cards" stand at 13, potentially referring to prepaid cards issued by banks for specific purposes. "POS" indicates Point of Sale transactions, totalling 11, suggesting purchases made using cards at physical retail locations. "Internet Banking" records 39 instances, reflecting transactions conducted online. "M-WALLETS" accounts for 19 instances, likely denoting mobile wallets accessible through mobile devices. Lastly, "Micro ATM" is at 7, signifying the utilization of small, portable devices for banking transactions, particularly in remote or rural areas. This data provides an overview of the prevalence of various banking methods or services within the specified categories.

### 8.1) Usage of plastic money & cashless transactions:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total
Making online payments for utilities (phone bills, electricity bill, rent etc.)	74	18	7	0	1	100
Booking flight, train or bus tickets	32	44	20	3	1	100
Paying for cabs	23	21	34	15	7	100
Online shopping	33	31	20	14	2	100
Payment at retail shops	26	40	19	4	11	100
Shopping malls	25	41	19	11	4	100
Availing Financial services (LIC, medical insurance, Bonds or NSE)	31	25	34	6	4	100
Medical bills	23	33	33	9	2	100
Education fees payment	28	38	20	8	6	100

### 8.2) Challenges while using plastic money & cashless transactions:

	Strongly agree	agree	Neutral	disagree	Strongly disagree	Total
Payment using plastic money or digital wallets	62	26	11	0	1	100
No need to carry cash						

anywhere if you have e-wallet/plastic money	28	51	11	7	3	100
No fear of theft in case of digital cash	37	34	24	5	0	100
Accuracy in paying bills is higher through cashless transactions or plastic money	28	36	24	11	1	100
One can do shopping or make payment at their comfort by sitting in house or doing any work	35	33	22	5	5	100
A record making payment can be maintained easily by making payment through plastic money cashless transactions	29	39	23	7	2	100
Reward points for making	23	43	25	4	5	100

payment through plastic money						
Cash back options for making payment through cashless transactions	23	45	19	7	6	100
Additional discount offers by making payments through specific plastic money	29	35	21	13	2	100
Safe & secure transactions	37	38	16	3	6	100
One cannot use the digital payment without pin	38	30	20	9	3	100
Plastic cards can be used for travel	26	39	26	5	4	100
Cashless transactions help in keeping watch on your transactions	31	42	18	5	4	100
Threat of fake notes or fake currency get	33	34	22	7	4	100

reduced						
No need to give tip or giving change if you make payment through cashless mode and hence solve the problem of change	33	33	24	7	3	100
To maintain the status in society we use plastic card	25	35	21	7	12	100
No fear of giving excess cash or receiving less cash	34	35	20	7	4	100
More accountability of the seller and cannot cheat of not making payment or less amount paid by customers	28	37	27	4	4	100

The survey data highlights respondents' perspectives on the use of digital payment methods and their associated advantages. Notably, a substantial majority strongly agrees (62) and agrees (26) that payment using plastic money or digital wallets is favourable, with minimal disagreement (0) and strongly disagreement (1) observed. A similar sentiment is reflected in the belief that carrying cash is unnecessary if one has e-wallets or plastic money, as 28 strongly agree and 51 agree, underscoring a widespread acceptance

of cashless alternatives. Participants express confidence in the security of digital cash, as 37 strongly agree and 34 agree that there is no fear of theft in case of digital transactions. Moreover, a significant number believe in the accuracy of bills paid through cashless transactions or plastic money, with 28 strongly agreeing and 36 agreeing. The convenience of online transactions is evident, with 35 respondents expressing that shopping or making payments can be done comfortably from home or during other activities, although some reservations are noted with 5 strongly disagreeing. Lastly, the idea of easily maintaining payment records through digital transactions resonates with 29 strongly agreeing and 39 agreeing. Overall, the data emphasizes a positive perception of digital payment methods, acknowledging their convenience, security, and record-keeping benefits. Participants also highlight the security and accountability aspects of cashless transactions, as 34 strongly agree and 35 agree that there is no fear of giving excess cash or receiving less cash, and 28 strongly agree and 37 agree that it leads to more accountability for sellers, preventing cheating on payments. Overall, the survey reflects a nuanced understanding of the advantages and motivations associated with cashless transactions, with respondents weighing factors such as convenience, security, and societal considerations.

### 8.3) Chi – square Analysis between Gender and Usage of cashless Transaction

H0: There is no association between gender and usage of cashless transactions

H1: There is association between gender and usage of cashless transactions

Statement	Chi-square Value	Sig. (2-sided)	H0/H1 (accept/reject)	Interpretation
1. Making online payments for utilities (phone bills, electricity bill, rent etc.)	3.230	0.358	H0 - accepted	Since, the p-value is greater than significant value (i.e., $0.358 > 0.05$ ) at 5% significant level HO is accepted and alternative rejected.

2. Booking flight, train or bus tickets	2.783	0.595	H0 – accepted	Since, the p-value is greater than significant value (i.e., $0.595 > 0.05$ ) at 5% significant level HO is accepted and alternative rejected.
3. Paying for cabs	2.849	0.583	H0 - accepted	Since, the p-value is greater than significant value (i.e., $0.583 > 0.05$ ) at 5% significant level HO is accepted and alternative rejected.
4. Online shopping	2.626	0.622	H0 - accepted	Since, the p-value is greater than significant value (i.e., $0.622 > 0.05$ ) at 5% significant level HO is accepted and alternative rejected.
5. Payment at retail shops	4.783	0.310	H0 - accepted	Since, the p-value is greater than significant value (i.e., $0.310 > 0.05$ ) at 5% significant level HO is accepted and alternative rejected.
6. Shopping malls	5.790	0.215	H0 - accepted	Since, the p-value is greater than significant value (i.e., $0.215 > 0.05$ ) at 5% significant level



				HO is accepted and alternative rejected.
7. Availing Financial services (LIC, medical insurance, Bonds or NSE)	4.107	0.392	H0 - accepted	Since, the p-value is greater than significant value (i.e., 0.392 > 0.05) at 5% significant level HO is accepted and alternative rejected.
8. Medical bills	3.611	0.461	H0 - accepted	Since, the p-value is greater than significant value (i.e., 0.461 > 0.05) at 5% significant level HO is accepted and alternative rejected.
9. Education fees payment	1.554	0.817	H0 - accepted	Since, the p-value is greater than significant value (i.e., 0.817 > 0.05) at 5% significant level HO is accepted and alternative rejected.

Above table shows that null hypothesis of various kind of usage of cashless transactions are rejected. It shows that according to Gender, there is identical for male and female regarding Usage of cashless transaction.

#### **8.4) Chi – square Analysis between Age and usage of cashless Transaction**

H0: There is no association between age and usage of cashless transactions

H1: There is association between age and usage of cashless transactions

<b>Statement</b>	<b>Chi-square Value</b>	<b>Sig. (2-sided)</b>	<b>H0/H1 (accept/reject)</b>	<b>Interpretation</b>
1. Making online payments for utilities (phone bills, electricity bill, rent etc.)	21.471	0.041	H0 - rejected	Since, the p-value is less than significant value (i.e., $0.041 < 0.05$ ) at 5% significant level HO is rejected.
2. Booking flight, train or bus tickets	24.796	0.043	H0 - rejected	Since, the p-value is less than significant value (i.e., $0.043 < 0.05$ ) at 5% significant level HO is rejected.
3. Paying for cabs	19.727	0.011	H0 – rejected	Since, the p-value is less than significant value (i.e., $0.011 < 0.05$ ) at 5% significant level HO is rejected and alternative accepted.
4. Online shopping	19.168	0.028	H0 - rejected	Since, the p-value is less than significant

				value (i.e., 0.028 < 0.05) at 5% significant level HO is rejected.
5. Payment at retail shops	19.547	0.009	HO - rejected	Since, the p-value is less than significant value (i.e., 0.009 < 0.05) at 5% significant level HO is rejected.
6. Shopping malls	12.772	0.020	HO - rejected	Since, the p-value is less than significant value (i.e., 0.020 < 0.05) at 5% significant level HO is rejected.
7. Availing Financial services (LIC, medical insurance, Bonds or NSE)	20.959	0.007	HO – rejected	Since, the p-value is less than significant value (i.e., 0.007 < 0.05) at 5% significant level HO is rejected and alternative accepted.
8. Medical bills	18.365	0.019	HO – rejected	Since, the p-value is less than significant

				value (i.e., 0.019 < 0.05) at 5% significant level HO is rejected and alternative accepted.
9. Education fees payment	15.566	0.049	H0 - rejected	Since, the p-value is less than significant value (i.e., 0.049 < 0.05) at 5% significant level HO is rejected and alternative accepted.

Above table shows that null hypothesis of various kind of usage of cashless transactions are rejected. It shows that according to Age, there is not identical for various Age Group people regarding Usage of cashless transaction. Perception of different age group people are different regarding various usage i.e. payment of education fees, Medical bills, financial services, shopping, bill Payments etc.

### 8.5) Chi – square Analysis between Gender and challenges faced by people while using plastic money & cashless transactions

H0: There is no association between gender and challenges while using plastic money & cashless transactions

H1: There is association between gender and challenges while using plastic money & cashless transactions

Statement	Chi-square Value	Sig. (2-sided)	H0/H1 (accept/reject)	Interpretation
1. Payment using plastic money or digital wallets	1.969	0.579	H0 - accepted	Since, the p-value is greater than significant value (i.e., 0.579 > 0.05) at 5%

				significant level H <sub>0</sub> is accepted and alternative rejected.
2. No need to carry cash if you have E-Wallet/Plastic money	24.252	0.043	H <sub>0</sub> – rejected	Since, the p-value is lesser than significant value (i.e., 0.043 < 0.05) at 5% significant level H <sub>0</sub> is rejected.
3. No fear of theft in case of digital cash	21.737	0.029	H <sub>0</sub> – rejected	Since, the p-value is lesser than significant value (i.e., 0.029 < 0.05) at 5% significant level H <sub>0</sub> is rejected.
4. Accuracy in paying bills is higher through cashless transactions or plastic money	4.017	0.404	H <sub>0</sub> – accepted	Since, the p-value is greater than significant value (i.e., 0.404 > 0.05) at 5% significant level H <sub>0</sub> is accepted and alternative rejected.
5. One can do shopping or make payment at their comfort by sitting in house or doing any work	21.292	0.023	H <sub>0</sub> – rejected	Since, the p-value is lesser than significant value (i.e., 0.023 < 0.05) at 5% significant level H <sub>0</sub> is rejected.
6. A record making payment can be maintained easily by making payment through plastic	3.705	0.447	H <sub>0</sub> – accepted	Since, the p-value is greater than significant value (i.e., 0.447 > 0.05) at 5% significant level H <sub>0</sub> is accepted and alternative

money cashless transactions				rejected.
7. Reward points for making payment through plastic money	25.015	0.026	H0 – rejected	Since, the p-value is lesser than significant value (i.e., $0.026 < 0.05$ ) at 5% significant level HO is rejected.
8. Cash back options for making payment through cashless transactions	22.132	0.012	H0 – rejected	Since, the p-value is lesser than significant value (i.e., $0.012 < 0.05$ ) at 5% significant level HO is rejected.
9. Additional discount offers by making payments through specific plastic money	2.393	0.664	H0 - accepted	Since, the p-value is greater than significant value (i.e., $0.664 > 0.05$ ) at 5% significant level HO is accepted and alternative rejected.
10. Safe & secure transactions	15.902	0.007	H0 – rejected	Since, the p-value is lesser than significant value (i.e., $0.007 < 0.05$ ) at 5% significant level HO is rejected.
11. One cannot use the digital payment without pin	2.012	0.734	H0 – accepted	Since, the p-value is greater than significant value (i.e., $0.734 > 0.05$ ) at 5% significant level HO is accepted and alternative rejected.
12. Plastic	2.733	0.603	H0 – accepted	Since, the p-

cards can be used for travel				value is greater than significant value (i.e., 0.603 > 0.05) at 5% significant level HO is accepted and alternative rejected.
13. Cashless transactions help in keeping watch on your transactions	4.591	0.332	H0 – accepted	Since, the p-value is greater than significant value (i.e., 0.332 > 0.05) at 5% significant level HO is accepted and alternative rejected.
14. Threat of fake notes or fake currency get reduced	5.470	0.242	H0 – accepted	Since, the p-value is greater than significant value (i.e., 0.242 > 0.05) at 5% significant level HO is accepted and alternative rejected.
15. No need to give tip or giving change if you make payment through cashless mode and hence solve the problem of change	2.659	0.616	H0 – accepted	Since, the p-value is greater than significant value (i.e., 0.616 > 0.05) at 5% significant level HO is accepted and alternative rejected.
16. To maintain the status in society we use plastic card	9.318	0.054	H0 – accepted	Since, the p-value is greater than significant value (i.e., 0.054 > 0.05) at 5% significant level

				HO is accepted and alternative rejected.
17. No fear of giving excess cash or receiving less cash	8.273	0.082	H0 – accepted	Since, the p-value is greater than significant value (i.e., 0.082 > 0.05) at 5% significant level HO is accepted and alternative rejected.
18. More accountability of the seller and cannot cheat of not making payment or less amount paid by customers	10.944	0.027	H0 - rejected	Since, the p-value is less than significant value (i.e., 0.027 < 0.05) at 5% significant level HO is rejected and alternative accepted.

Above table shows that null hypothesis of various kind of challenges faced by users are rejected. It shows that according to gender, there is not identical for Male and Female challenges faced while using Cashless transaction regarding. Perception of Male and female are different regarding usage of plastic money for cashless transaction like no need to carry cash for payment. Seller cannot cheat of not making payment or less amount paid by customer and safety of transaction etc

### 8.6) Chi – square Analysis between Age & challenges faced by users while using plastic money & cashless transactions

H0: There is no association between age and challenges while using plastic money & cashless transactions

H1: There is association between age and challenges while using plastic money & cashless transactions

Statement	Chi-square Value	Sig. (2-sided)	H0/H1 (accept/reject)	Interpretation
1. Payment using plastic money or	0.395	0.999	H0 - accepted	Since, the p-value is greater than significant value



digital wallets				(i.e., $0.999 > 0.05$ ) at 5% significant level $H_0$ is accepted and alternative rejected.
2. No need to carry cash if you have E-Wallet/Plastic money	25.895	.049	$H_0$ – rejected	Since, the p-value is lesser than significant value (i.e., $0.049 < 0.05$ ) at 5% significant level $H_0$ is rejected.
3. No fear of theft in case of digital cash	2.659	.850	$H_0$ – accepted	Since, the p-value is greater than significant value (i.e., $0.850 > 0.05$ ) at 5% significant level $H_0$ is accepted and alternative rejected.
4. Accuracy in paying bills is higher through cashless transactions or plastic money	5.805	.669	$H_0$ – accepted	Since, the p-value is greater than significant value (i.e., $0.669 > 0.05$ ) at 5% significant level $H_0$ is accepted and alternative rejected.
5. One can do shopping or make payment at their comfort by sitting in house or doing any work	3.816	.873	$H_0$ – accepted	Since, the p-value is greater than significant value (i.e., $0.873 > 0.05$ ) at 5% significant level $H_0$ is accepted and alternative rejected.
6. A record making payment can be maintained easily by	19.330	.015	$H_0$ – rejected	Since, the p-value is lesser than significant value (i.e., $0.015 < 0.05$ ) at 5% significant

making payment through plastic money cashless transactions				level HO is rejected.
7. Reward points for making payment through plastic money	19.420	.013	H0 – rejected	Since, the p-value is less than significant value (i.e., 0.013 < 0.05) at 5% significant level HO is rejected and alternative accepted.
8. Cash back options for making payment through cashless transactions	29.322	.000	H0 – rejected	Since, the p-value is less than significant value (i.e., 0.000 < 0.05) at 5% significant level HO is rejected and alternative accepted.
9. Additional discount offers by making payments through specific plastic money	17.526	.025	H0 - rejected	Since, the p-value is less than significant value (i.e., 0.025 < 0.05) at 5% significant level HO is rejected and alternative accepted.
10. Safe & secure transactions	25.814	.038	H0 - rejected	Since, the p-value is greater than significant value (i.e., 0.038 < 0.05) at 5% significant level HO is Rejected
11. One	19.681	.012	H0 – rejected	Since, the p-value

cannot use the digital payment without pin				is less than significant value (i.e., $0.012 < 0.05$ ) at 5% significant level HO is rejected and alternative accepted.
12. Plastic cards can be used for travel	26.570	.004	H0 - rejected	Since, the p-value is greater than significant value (i.e., $0.004 < 0.05$ ) at 5% significant level HO is failed to accept.
13. Cashless transactions help in keeping watch on your transactions	7.124	.523	H0 – accepted	Since, the p-value is greater than significant value (i.e., $0.523 > 0.05$ ) at 5% significant level HO is accepted and alternative rejected.
14. Threat of fake notes or fake currency get reduced	8.363	.399	H0 – accepted	Since, the p-value is greater than significant value (i.e., $0.399 > 0.05$ ) at 5% significant level HO is accepted and alternative rejected.
15. No need to give tip or giving change if you make payment through cashless mode and hence solve the problem of change	20.667	.033	H0 – rejected	Since, the p-value is greater than significant value (i.e., $0.033 < 0.05$ ) at 5% significant level HO is failed to accept
16. To	21.368	.006	H0 – rejected	Since, the p-value

maintain the status in society we use plastic card				is less than significant value (i.e., $0.006 < 0.05$ ) at 5% significant level HO is rejected and alternative accepted.
17. No fear of giving excess cash or receiving less cash	23.615	.042	HO – rejected	Since, the p-value is less than significant value (i.e., $0.042 < 0.05$ ) at 5% significant level HO is failed to accept
18. More accountability of the seller and cannot cheat of not making payment or less amount paid by customers	7.739	.459	HO – accepted	Since, the p-value is greater than significant value (i.e., $0.459 > 0.05$ ) at 5% significant level HO is accepted and alternative rejected.

**Conclusion**

Generally users of less than 25 years Age group are more accepting of cashless transactions and digital payments due to growing up in a technologically advanced environment. They are more likely to embrace mobile payment apps and digital wallets. Users of Age group of 25 to 40 Years are early adopters of digital payment methods. They appreciate the convenience of cashless transactions but may still value the tangibility of cash for budgeting purposes. Users of Age group of 40 to 55 Years and more are being quite Open to use credit/debit cards and online banking but may still prefer cash for certain transactions due to security concerns. They appreciate the convenience of cashless payments but may be more cautious about adopting new technologies. while younger generations tend to be more accepting and enthusiastic about cashless transactions, older generations may have more reservations due to concerns about security, privacy, and unfamiliarity with

digital technologies. However, as technology continues to advance and cashless payment options become more widespread, attitudes towards digital payments are gradually evolving across all age groups. Female may perceive cashless transactions as convenient but may also prioritize safety and security over convenience. They may be more cautious about sharing personal and financial information online and may prefer traditional payment methods like cash or checks. men may be more inclined towards adopting cashless transactions and digital payment methods due to convenience and ease of use. They may be more open to using technology-based solutions for financial transactions and may perceive cashless payments as a sign of modernity and efficiency. While gender can influence individuals' experiences and perceptions towards cashless transactions and plastic money, it's essential to recognize that these attitudes are highly individualized and shaped by various factors such as cultural norms, socioeconomic status, and personal preferences. Creating inclusive and accessible financial services that cater to the diverse needs of all genders is crucial in promoting financial inclusion and empowerment for everyone.

### **Suggestions**

Cash less transaction are not possible without internet, hence government must investigate in infrastructure availing internet. Specially free wifi zones should be made available at local market . All the major banks must have separate counter which will be specifically used for assistance in cash less transaction. Extra charges on Cash less transaction must be stopped. It should be made mandatory to all cooperative societies to make Cash less transaction specially cheque or demand draft. Some meaningful privileges must be given to the people who are using Cash less transaction. The vast advertisement campaign must be launched which will not only promote Cash less transaction but also will provide valuable help in using it. Majority of respondents were not too sure whether black money will yield due to demonetization hence effort must be made to investigate black money in foreign, gold and real estate.

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## Chapter: 39

# Problems and Prospects of Digital Marketing in India

**Mr. Donde Anil Bhimrao**

### **Abstract:**

E-marketing, the utilization of digital platforms for marketing purposes, has revolutionized the way businesses interact with consumers. This abstract explores the challenges and opportunities presented by e-marketing, focusing on both its problems and prospects. The problems associated with e-marketing include heightened digital competition, information overload for consumers, cybersecurity risks, and the prevalence of ad-blocking software. These challenges can hinder the effectiveness of marketing efforts and make it difficult for businesses to capture and retain consumer attention in the crowded digital space. While e-marketing poses certain obstacles, its prospects far outweigh the challenges. By embracing innovative strategies, leveraging digital tools, and prioritizing consumer engagement, businesses can harness the full potential of e-marketing to drive growth, enhance brand visibility, and remain competitive in today's digital landscape.

### **Introduction :**

E-marketing, also known as electronic marketing or digital marketing, refers to the use of digital channels and technologies to promote products or services to a target audience. It encompasses a wide range of online strategies and tactics aimed at reaching potential customers, engaging them, and driving conversions.

In the digital age, e-marketing has become essential for businesses of all sizes to establish their presence, connect with their audience, and achieve their marketing objectives. It leverages various online platforms such as websites, search engines, social media, email, mobile apps, and online advertising to deliver targeted messages and create meaningful interactions with customers.

E-marketing offers numerous advantages over traditional marketing methods, including cost-effectiveness, global reach, precise targeting, real-time tracking and analytics, and the ability to customize content based on user preferences and behavior. By harnessing the power of digital technologies, businesses can

optimize their marketing efforts, increase brand visibility, drive traffic, generate leads, and ultimately, boost sales and revenue.

Overall, e-marketing has revolutionized the way businesses promote and sell their products or services in the digital era, providing unprecedented opportunities for growth, innovation, and customer engagement.

### **Objectives of the Study:**

- To know the need of E-marketing.
- To study the Types of e-marketing.
- To analyze the Problems of e-marketing in India.
- 4. To understand the challenges of E-marketing.

### **Research Methodology:**

The current study is based on the data gathered from secondary sources such as books, magazines, journals, various government organizations, website etc.

### **Need of E-marketing :**

E-Marketing, or digital marketing, is essential for businesses today due to several reasons:

- **Global Reach** : It allows businesses to reach a global audience, breaking geographical barriers.
- **Cost-Effectiveness** : Compared to traditional marketing channels like TV or print ads, e-Marketing can be more cost-effective, especially for small businesses with limited budgets.
- **Targeted Advertising** : Digital platforms offer advanced targeting options, allowing businesses to reach specific demographics, interests, and behaviors, increasing the efficiency of marketing efforts.
- **Measurable Results** : Unlike traditional marketing methods, e-Marketing provides detailed analytics and metrics, enabling businesses to track and measure the effectiveness of their campaigns in real-time.
- **Enhanced Customer Engagement** : Through social media, email campaigns, and interactive content, e-Marketing facilitates direct engagement with customers, fostering stronger relationships and loyalty.
- **Adaptability** : In the fast-paced digital landscape, e-Marketing allows businesses to adapt quickly to market changes, modify strategies, and respond to customer feedback in real-time.



## **Types of e-marketing:**

E-marketing encompasses various types of strategies and tactics that businesses use to promote their products or services online. Here are some common types of e-marketing:

- **Search Engine Optimization (SEO):** SEO involves optimizing a website's content and structure to improve its visibility in search engine results pages (SERPs) organically. By targeting relevant keywords and enhancing user experience, businesses aim to increase their website's ranking and attract more organic traffic.
- **Search Engine Marketing (SEM):** SEM involves paid advertising on search engines, such as Google Ads or Bing Ads, to promote products or services. Usually, it consists of pay-per-click (PPC) campaigns, in which marketers place bids on keywords to make their advertising stand out in search results..
- **Social Media Marketing (SMM):** SMM involves using social media platforms like Facebook, Instagram, Twitter, LinkedIn, and others to engage with audiences, build brand awareness, and promote products or services. It consists of influencer collaborations, sponsored advertising, community involvement, and organic posting.
- **Content Marketing:** Content marketing focuses on creating and distributing valuable, relevant, and consistent content to attract and retain a targeted audience.
- **Email Marketing:** Email marketing involves sending targeted messages or promotional content to a list of subscribers via email. It is used to nurture leads, build customer relationships, drive sales, and increase brand loyalty. Email marketing campaigns may include newsletters, product updates, special offers, and personalized recommendations.
- **Affiliate Marketing:** Affiliate marketing involves partnering with third-party affiliates or publishers who promote products or services in exchange for a commission for each sale or referral generated through their marketing efforts. It is a performance-based marketing strategy that can help businesses expand their reach and drive sales.
- **Influencer Marketing:** Influencer marketing involves collaborating with influencers or key opinion leaders in specific industries or niches to endorse products or services to their

followers. Influencers can help businesses reach a larger audience, build trust, and increase brand awareness through authentic recommendations.

- **Mobile Marketing:** Mobile marketing focuses on reaching and engaging consumers on their mobile devices, such as smartphones and tablets. It includes tactics like mobile-responsive website design, mobile apps, SMS marketing, in-app advertising, and location-based targeting.

These are just a few examples of the types of e-marketing strategies available to businesses. Depending on their goals, target audience, and resources, businesses may utilize one or more of these tactics to create comprehensive e-marketing campaigns and achieve their marketing objectives.

#### **Problem of e-marketing:**

- **Digital Competition:** With the rise of e-marketing, competition has intensified, making it challenging for businesses to stand out amidst the vast digital landscape.
- **Information Overload:** Consumers are bombarded with a plethora of marketing messages online, leading to information overload and making it difficult for businesses to capture their attention effectively.
- **Cybersecurity Concerns:** E-marketing exposes businesses and consumers to cybersecurity threats such as data breaches, phishing attacks, and malware infections, posing risks to sensitive information and trust.
- **Ad Blocking:** The prevalence of ad-blocking software hinders the effectiveness of traditional online advertising methods, forcing marketers to explore alternative strategies to reach their target audience.

#### **Prospects of e-marketing:**

- **Global Reach:** E-marketing enables businesses to transcend geographical boundaries and reach a global audience, expanding their market reach and potential customer base.
- **Cost Efficiency:** Compared to traditional marketing channels, e-marketing offers cost-effective solutions such as social media advertising, email campaigns, and content marketing, allowing businesses to achieve higher ROI with lower investments.

- **Targeted Advertising:** Digital platforms provide advanced targeting capabilities, allowing businesses to deliver personalized and relevant content to specific audience segments based on demographics, interests, and behavior, increasing the effectiveness of marketing efforts.
- **Data Analytics:** E-marketing facilitates the collection and analysis of vast amounts of data, providing valuable insights into consumer behavior, preferences, and trends, empowering businesses to make informed decisions and optimize their marketing strategies for better results.
- **Interactive Engagement:** Digital channels offer interactive features such as polls, surveys, quizzes, and live chats, enhancing customer engagement and fostering meaningful interactions between businesses and their audience.

### **Conclusion:**

E-marketing has emerged as a cornerstone of modern business strategy, offering unparalleled opportunities for businesses to connect with their audience, drive engagement, and achieve marketing goals in the digital landscape. With its cost-effectiveness, global reach, targeted approach, and advanced analytics capabilities, e-marketing empowers businesses to stay competitive, adapt to changing consumer behaviors, and thrive in an ever-evolving marketplace. By embracing e-marketing strategies and leveraging digital technologies effectively, businesses can unlock new avenues for growth, build stronger relationships with customers, and secure a sustainable competitive advantage in the digital age.

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**Chapter: 40**  
**Digital Payment System in India: Opportunities and Challenges**

**Sandeep B. Jadhav**

**Abstract:**

Digital payment systems in India have witnessed remarkable growth, fueled by government initiatives and technological advancements. This paper explores the opportunities and challenges presented by the proliferation of digital payment methods in the Indian context. Opportunities include promoting financial inclusion, enhancing convenience and transparency, reducing costs, and stimulating economic growth. However, challenges such as cybersecurity risks, infrastructure limitations, digital literacy barriers, regulatory complexities, and exclusion of vulnerable populations persist. Addressing these challenges is crucial to realizing the full potential of digital payments and ensuring inclusive access for all segments of society. This paper concludes by emphasizing the importance of collaboration between stakeholders to leverage the opportunities of digital payments while mitigating associated risks, thus fostering a robust and inclusive digital payment ecosystem in India.

**Keywords:** Digital Banking, Digital Payment, Digital Literacy, Consumer Perception.

**Introduction:**

Digital payment in India has experienced significant growth over the past few years, driven by initiatives like demonetization and the government's push for a cashless economy. Various digital payment methods such as Unified Payments Interface (UPI), mobile wallets, and Aadhaar-enabled payment systems have gained popularity. UPI, in particular, has emerged as a game-changer, allowing users to transfer money instantly between bank accounts using smartphones. Mobile wallet services like Paytm, Google Pay, and PhonePe have also seen widespread adoption. Additionally, initiatives like Bharat Bill Payment System (BBPS) have streamlined utility bill payments, further promoting digital transactions. Overall, digital payments continue to evolve and play a crucial role in India's journey towards financial inclusion and a digital economy.

## **Objectives of the Study**

1. To analyse the growth of digital payment system in India.
3. To study the Opportunities of digital payment systems.
4. To provide stakeholders, with insights challenges of digital payment systems.

## **Research Methodology:**

This research paper is based on secondary data which were collected from research studies, books, journals, newspapers and ongoing academic working papers which focused on various aspects of digital payment system.

## **Growth of Digital Payments in India**

The growth of digital payments in India has been substantial in recent years, driven by factors such as increased smartphone penetration, government initiatives promoting digital transactions, and the expansion of digital infrastructure. According to various reports, including those from the Reserve Bank of India (RBI) and industry sources, digital payment transactions in India have been consistently increasing across various channels such as mobile wallets, Unified Payments Interface (UPI), and card payments. This growth trend is expected to continue as more people adopt digital payment methods for their convenience and security. As of my last update, here is some statistical data on the growth of digital payments in India:

### **1. Unified Payments Interface (UPI):**

UPI transactions have witnessed significant growth. According to the National Payments Corporation of India (NPCI), UPI transactions surpassed 3 billion in a single month for the first time in 2023.

Monthly UPI transaction volumes have been consistently increasing, indicating the growing adoption of UPI as a preferred mode of digital payment.

### **2. Mobile Wallets:**

Mobile wallet transactions have also shown substantial growth. Reports from industry sources suggest that the total value of transactions through mobile wallets has been increasing steadily over the past few years.

Despite the emergence of UPI, mobile wallets continue to play a significant role in facilitating digital payments, especially for online transactions and peer-to-peer transfers.

### **3. Card Payments:**

Card payments, both debit, and credit, remain popular in India. The volume and value of card transactions have been steadily increasing, driven by factors such as the issuance of more cards, increased consumer spending, and the expansion of card acceptance infrastructure.

### **4. Digital Banking:**

Digital banking channels, including internet banking and mobile banking apps, have seen a surge in usage. Banks in India have been investing in enhancing their digital banking platforms to provide customers with a seamless and convenient payment experience.

### **5. Government Initiatives:**

Government initiatives such as Digital India and demonetization have played a significant role in accelerating the adoption of digital payments in India. Various incentives and campaigns have been launched to promote digital transactions and financial inclusion. These statistics reflect the overall growth trajectory of digital payments in India, indicating a shift towards a more cashless economy. However, for the most recent and detailed statistical data, I would recommend consulting reports from sources like the Reserve Bank of India (RBI), the National Payments Corporation of India (NPCI), and other relevant government agencies.

### **Opportunities of digital payment systems:**

- 1. Financial Inclusion:** Digital payment systems provide access to financial services for unbanked and underbanked populations, promoting financial inclusion.
- 2. Convenience:** Digital payments offer a convenient and seamless way to transact, allowing users to make payments anytime, anywhere, without the need for physical cash.
- 3. Cost-effectiveness:** Digital transactions are often more cost-effective for both consumers and businesses compared to traditional cash-based transactions, reducing the need for physical infrastructure and manual processing.

4. **Transparency and Security:** Digital payment systems can enhance transparency and security by providing digital records of transactions and implementing robust authentication and encryption measures to protect user data.

5. **Economic Growth:** Increased adoption of digital payments can stimulate economic growth by reducing the informal economy, promoting tax compliance, and facilitating smoother business transactions.

### **Challenges of digital payment systems:**

1. **Cybersecurity Risks:** Digital payment systems are susceptible to cybersecurity threats such as data breaches, phishing attacks, and malware, posing risks to user privacy and financial security.

2. **Infrastructure and Connectivity:** Inadequate infrastructure and connectivity in certain regions can hinder the adoption and effectiveness of digital payment systems, particularly in rural and remote areas.

3. **Digital Literacy:** A lack of digital literacy among certain demographics may impede the adoption of digital payment systems, as users may be unfamiliar with technology or hesitant to trust digital platforms.

4. **Regulatory Compliance:** Digital payment systems must comply with regulatory requirements related to data protection, consumer rights, and financial regulations, which can vary across different jurisdictions and pose challenges for businesses operating in multiple markets.

5. **Exclusion of Vulnerable Populations:** Financial exclusion can be exacerbated by difficulties that some vulnerable populations, such as the elderly, low-income individuals, and people with disabilities, face in accessing and using digital payment systems, even in the face of attempts to promote financial inclusion. In summary, digital payment systems present a plethora of opportunities to improve financial inclusion, efficiency, and security. However, in order to guarantee that the advantages of digitalization are available to all societal sectors, it is imperative to confront the accompanying problems.

### **Conclusion**

Digital payment systems present a myriad of opportunities and challenges in the modern financial landscape. The opportunities

include promoting financial inclusion, enhancing convenience and cost-effectiveness, ensuring transparency and security, and driving economic growth. These systems have the potential to revolutionize how people transact and manage their finances, leading to a more efficient and inclusive economy.

However, digital payment systems also face significant challenges, including cybersecurity risks, infrastructure and connectivity limitations, digital literacy barriers, regulatory compliance complexities, and the exclusion of vulnerable populations. Addressing these challenges is crucial to realizing the full potential of digital payments and ensuring that the benefits are accessible to everyone.

Despite these challenges, the continued evolution and innovation in digital payment technologies offer immense potential to overcome barriers and create a more inclusive and resilient financial ecosystem. By fostering collaboration between governments, financial institutions, technology providers, and civil society, we can harness the opportunities of digital payments while mitigating the associated risks, ultimately advancing financial inclusion and economic development on a global scale.

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## Chapter: 41

# The Landscape of Digital Marketing in India: Trends, Challenges, and Opportunities

Mr. Atram Shubham Bhaskarrao

### Abstract:

In recent years, India has witnessed a significant surge in digital adoption, leading to profound changes in consumer behavior and business practices. This research paper aims to provide an in-depth analysis of the digital marketing landscape in India. It explores key trends, challenges, and opportunities for businesses operating in this dynamic environment. Through comprehensive research and analysis, this paper sheds light on the evolving nature of digital marketing in India and offers insights for practitioners and policymakers alike. This paper presents a depth analysis of digital marketing. This can be summarized that developments of digital marketing to enhance the success of the country they are several forms of evaluation of digital marketing depend on the growth.

**Keywords:** Digital Marketing, Online Marketing, Internet Marketing, Search Engine Optimization (SEO), Search Engine Marketing (SEM).

**Introduction:** Digital marketing, as defined, encompasses a wide array of techniques and strategies aimed at promoting products or services using digital technologies. In today's highly interconnected world, where consumers are increasingly turning to the internet and mobile devices for information and entertainment, understanding and effectively leveraging digital marketing has become essential for brands seeking to stay competitive and engage with their target audience.

SEO involves optimizing a website's content and structure to improve its visibility and ranking in search engine results pages (SERPs). By targeting relevant keywords and enhancing various on-page and off-page elements, businesses can attract organic traffic and increase their online presence. SEM refers to paid advertising efforts aimed at increasing a website's visibility in search engine results. This includes pay-per-click (PPC) campaigns, where advertisers bid on keywords to display ads prominently in search engine results pages. Content marketing involves creating and distributing valuable, relevant, and engaging content to attract and

retain a target audience. Content formats may include blog posts, articles, videos, info graphics, podcasts, and more, with the aim of driving brand awareness, engagement, and conversions. SMM involves leveraging social media platforms such as Facebook, Instagram, Twitter, LinkedIn, and Snapchat to engage with audiences, build brand awareness, drive website traffic, and generate leads. Social media platforms offer various advertising options, including sponsored posts, targeted ads, and influencer partnerships.

E-commerce marketing focuses on promoting products and driving sales through online retail channels. This includes optimizing product listings, running targeted advertising campaigns, and implementing conversion optimization strategies to maximize sales. With the increasing use of Smartphone and mobile devices, mobile marketing has become integral to digital marketing strategies. This includes mobile-responsive website design, mobile apps, SMS marketing, and location-based advertising tailored to reach consumers on their mobile devices.

### **Growth Rate Of digital marketing in India**

The growth rate of digital marketing in India has been quite robust. While I don't have access to real-time data beyond that date, I can provide some insights into the growth rate trends observed in the years leading up to 2022.

It's important to note that the growth rate of digital marketing can vary depending on various factors such as economic conditions, technological advancements, regulatory changes, and shifts in consumer behavior. Additionally, different segments of digital marketing (e.g., social media marketing, search engine marketing, e-commerce marketing) may experience different growth rates.

That said, before 2022, the growth rate of digital marketing expenditure in India was consistently outpacing traditional marketing channels. According to various industry reports and research studies, the compound annual growth rate (CAGR) of digital advertising expenditure in India was estimated to be around 30% to 35% in the years leading up to 2022.

Factors contributing to this high growth rate include the increasing adoption of digital technologies, rising internet penetration, the proliferation of smartphones, the popularity of social

media platforms, the growth of e-commerce, and the emergence of new digital marketing channels and platforms.

It's worth noting that while the growth rate of digital marketing expenditure in India has been impressive, it may vary from year to year based on market dynamics and external factors. Additionally, the growth rate may have been influenced by the COVID-19 pandemic, which accelerated the shift towards digital channels as more businesses and consumers embraced online interactions and transactions.

### **The scope of the study on digital marketing in India**

1. **Overview of Digital Marketing in India:** The study will provide a comprehensive overview of digital marketing, highlighting its significance and relevance in the Indian context. This includes defining digital marketing, its evolution, and its role in shaping consumer behavior and business practices.
2. **Key Components and Strategies:** The study will explore the various components and strategies of digital marketing, such as search engine optimization (SEO), social media marketing, content marketing, email marketing, influencer marketing, mobile marketing, and others. It will delve into the intricacies of each strategy, discussing best practices, trends, and case studies where applicable.
3. **Trends and Emerging Technologies:** A significant focus of the study will be on identifying and analyzing current trends in digital marketing in India. This includes exploring emerging technologies such as artificial intelligence (AI), machine learning (ML), augmented reality (AR), virtual reality (VR), and their impact on digital marketing strategies and consumer engagement.
4. **Consumer Behavior and Market Dynamics:** Understanding consumer behavior is crucial for effective digital marketing strategies. The study will examine the evolving preferences, habits, and expectations of Indian consumers in the digital age. It will also analyze market dynamics, including demographic trends, socio-economic factors, and cultural influences shaping consumer behavior.
5. **Challenges and Opportunities:** The study will identify and assess the challenges faced by businesses in implementing

digital marketing strategies in India. This includes regulatory hurdles, infrastructure limitations, language and cultural diversity, ad fraud, and competition. Furthermore, the study will highlight the opportunities for innovation and growth within the digital marketing landscape.

6. **Case Studies and Best Practices:** To provide practical insights, the study will incorporate relevant case studies and examples of successful digital marketing campaigns conducted by businesses in India. These case studies will showcase best practices, strategies, and tactics employed by brands to achieve their marketing objectives and drive business growth.
7. **Future Outlook and Recommendations:** Lastly, the study will offer a forward-looking perspective on the future of digital marketing in India. It will forecast emerging trends, technologies, and disruptive forces likely to shape the digital marketing landscape in the coming years. Based on insights gained, the study will provide recommendations for businesses, marketers, and policymakers to navigate and capitalize on the evolving digital marketing ecosystem.

### **Methodology**

The present study is completely based on secondary data. The required data were collected from the published annual report, journals, books; newspaper, other publication, various websites and the main source of the secondary data are received through the internet.

### **Review of Literature:**

#### **Evolution of Digital Marketing in India:**

Previous research has traced the evolution of digital marketing in India, highlighting key milestones and trends that have shaped the industry. Early adoption of internet technologies, coupled with the proliferation of smartphones, has driven the growth of digital marketing in the country (Kumar & Dash, 2018).

Studies have also examined the role of government initiatives, such as Digital India, in promoting digital literacy and expanding internet access, thereby contributing to the growth of digital marketing (Bhattacharjee & Sharma, 2019).

### **Current Trends in Digital Marketing:**

Recent research has identified several trends in digital marketing in India, including the increasing use of social media platforms for marketing purposes (Singh & Kapoor, 2020). Platforms like Facebook, Instagram, and TikTok have become essential channels for brand promotion and customer engagement.

Content marketing has emerged as a dominant strategy, with businesses focusing on creating high-quality, relevant content to attract and retain audiences (Verma & Jain, 2021). Video content, in particular, has gained popularity, with platforms like YouTube witnessing a surge in viewership.

### **Challenges Facing Digital Marketers:**

Scholars have highlighted various challenges facing digital marketers in India, including regulatory hurdles, infrastructure limitations, and language diversity (Joshi & Sharma, 2019). Compliance with data privacy regulations, such as GDPR and India's own data protection laws, presents a significant challenge for businesses operating in the digital space.

Ad fraud and brand safety concerns have also been identified as key challenges, with businesses grappling with issues such as click fraud, bot traffic, and ad placement on inappropriate websites (Bhattacharya et al., 2020).

### **Opportunities for Innovation:**

Research has underscored the opportunities for innovation and growth within the digital marketing landscape in India. Personalization and data-driven marketing have emerged as areas of focus, with businesses leveraging consumer data to deliver personalized experiences (Rathore & Chaturvedi, 2020).

The rise of emerging technologies, such as AI, AR, and VR, presents opportunities for brands to create immersive and engaging digital experiences for consumers (Singh & Agrawal, 2021). E-commerce growth and the proliferation of digital payment ecosystems offer new avenues for businesses to reach customers and drive sales (Gupta & Kumar, 2021).

### **Conclusion and Future Outlook:**

In conclusion, the literature review highlights the dynamic nature of the digital marketing landscape in India, characterized by evolving trends, persistent challenges, and abundant opportunities

for innovation. Future research should continue to explore emerging trends, technologies, and consumer behaviors to inform strategic decision-making in the digital marketing domain.

**Conclusion:** In conclusion, the landscape of digital marketing in India is dynamic, evolving, and full of opportunities, yet it also presents its fair share of challenges. Through a comprehensive review of existing literature, we have gained insights into the trends, challenges, and opportunities shaping the digital marketing ecosystem in the country.

Key findings from the literature review highlight the significant growth and evolution of digital marketing in India, driven by factors such as increasing internet penetration, the rise of social media platforms, and the emergence of new technologies. Businesses are leveraging digital marketing strategies such as content marketing, social media marketing, and influencer collaborations to engage with consumers and drive growth.

However, the literature also underscores the challenges facing digital marketers in India, including regulatory hurdles, infrastructure limitations, and concerns related to ad fraud and brand safety. Compliance with data protection regulations, addressing language diversity, and overcoming digital literacy barriers remain critical issues for businesses operating in the digital space.

Despite these challenges, the literature points to abundant opportunities for innovation and growth within the digital marketing landscape in India. Personalization, data-driven marketing, and the adoption of emerging technologies present new avenues for businesses to connect with consumers and drive meaningful engagement. Furthermore, the rapid growth of e-commerce and the expansion of digital payment ecosystems offer promising opportunities for businesses to tap into India's vast market potential.

In light of these findings, future research should focus on addressing key research gaps and exploring emerging trends, technologies, and consumer behaviors in the Indian digital marketing context. Collaboration between academia, industry, and government will be essential for driving innovation, knowledge sharing, and sustainable growth in the digital marketing domain.

In conclusion, the literature review underscores the dynamic nature of digital marketing in India and the need for continued

research, innovation, and collaboration to unlock its full potential and drive success in the digital economy.

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**Women Empowerment Through the Digital Transaction  
And Financial Management of Rural Areas Special  
Reference With Kolhapur District**

**Jyoti Laxman Tarode**

**Abstract:**

In this research paper there is discussion on through the Digital Transaction and financial management of rural areas women. What type's problems faced by the Digital Transaction and financial management of rural areas women Empowerment while starting minor and major business. Through this paper we can understand the rural women's social position and social status in the traditional Indian society. According to the 2011 census, the population in India is 201, 3780,086 and the population in Maharashtra is 13275898 and the Rural areas in Kolhapur district is 5, 04, 461. India has a high population growth rate. The evolutions of women Entrepreneurs. Indians, regardless of profession, have been entrepreneurs. This study focus on secondary data. After 75 years of independence and the implementation of the constitution, there was negligence in the India. The concept of economy and women's empowerment in India interdependent on each other. To gain control over their own life. Women play an important role in economical development of India.

**Key Word:** Digital, Financial Management, Rural, Women

**Introduction:**

Women in constitute round half of the country's population. Hence, they are regarded as the "better half of the society". In traditional societies, they were confined to the four walls of house performing household activities. Women's sense of self-worth; their right to have and to determine choices their right to have access to opportunities and resources their right to have power to control their own lives both within and outside the home and their ability to influence the direction of social. Women's empowerment has also been viewed and discussed in terms of individual/personal development and collective thinking as a group. According to Moser (1989:1815) Women in India have been oppressed culturally, socially economically and politically for centuries. They are exploited at home in the families in the society and in the country. Often in developing countries, a women is not traditionally seen



playing a big role either in entrepreneurship or in major financial activities, owing to her having access to financial and physical capital. Generally, Women in these countries do not own physical capital. And if one looks at surveys, we see that only every small few percent of women own houses independently and a very low percentage own any sort of agricultural land. Also, poverty on its own is not a single factor or condition but collectively creates a lack of financial assets, a lack of access to any property and eventually a lack of a voice in their community, Globally, poverty affects 63% of women as compared to men, yet they physically labor three times more without being paid, which includes housework, assisting their men in fields and other works.

On the flip side, a woman has immense potential to generate, save, spend their own money. They not only can make a profit for themselves but also for the communities of which they are part. According to the latest reports of McKinsey Global Institute “if women are fully integrated into the world economy it would add \$12 Trillion to global GDP by 2025” in a nutshell removing gender financial inequality will lift all emerging and poor countries. It is now imperative for all the government organizations, financial companies and global charity foundation to start helping women to explore their powers to generate income by facing them digital financial services. In the developing world 40% of women do not have any financial accounts. Whereas, more than billion-plus women lack access to any formal financial services globally. Digital financial Services, like mobile banking, mobile money, mobile wallets, mobile remittances & micro ATM solution developed by Estel Technologies can help a small scale, micro-businesses owned by women entrepreneurs grow far more efficiently than a branch-based, traditional banking.

#### **Definition of Rural Women’s –**

- 1) “Women empowerment refers to increasing the spiritual, political, social or economic strength of women. It often involves the empowered developing confidence in their own capacities”.
- 2) The term “empowerment of women “refers to the process of providing power to women to become free from the control her own life and to determine her own conditions.

### History of rural area in Kolhapur district:

**History:** Kolhapur was a princely state during British rule of India. Shahu Maharaj ruled it from 1894 to 1922. He worked for the development of the state. It was a hub for Marathi film industry. It was known as “Chitranagari”. It is now known as Bhalji Pendharkar.

The total Kolhapur district population living in rural areas is 2,645,992 of which males and females are 1,348,815 and 1,297,177 respectively. In rural areas of Kolhapur district, sex ratio is 962 females per 1000 males. If child sex ratio data of Kolhapur district is considered, figure is 862 girls per 1000 boys.

Demography:

	<b>Rural</b>	<b>Urban</b>
Population %	68.27%	31.73%
Total population	2,645,992	1,230,009
Male population	1,348,815	631,843
Female population	1,297,177	598,166

This study is focused on rural through the digital transaction and financial management of the women empowerment.

### Literature Review:

- 1) **Empowering women through financial inclusion: A study of urban slum (Shivangi Bhatia and Seema Singh 2019 The journal for Decision Makers)**

financial inclusion women in slums PMJDY APY PMJJBY PMSBY .The study contributes to existing literature by advancing the debate on women in urban slums and identifies the substantial need for the development of formal financial system to enhance the scale of financial inclusion.

- 2) **Mobile money for women’s economic empowerment: the mediating role of financial management practices( Gregor Dorfleitner & Quynh Anh Nguyen Rrticle 2022)**

Hy1 Financial management practices mediate the relationship between mobile money adoption and women’s economic empowerment.

Hy2 financial management practices are positively associated with women’s economic empowerment.

- 3) **Empowering Women through Digital Financial Services – (Digital Mobile Financial services solution)**

<https://esteltelecom.com/blog/empowering-women-through-digital-financial-services.html>.

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### **Definitions of important terms:**

#### **Women Empowerment:**

Women empowerment is not product, it is a process by which women acquire self – confidence ,control over decision making power and household resources, critically analysis her surrounding environment and have the power to choose from all available alternative choices. Empowerment can be explained in different dimensions, social empowerment, political empowerment, psychological empowerment, economic empowerment, educational empowerment etc. when a woman empowered, her potentialities are explored and she understands all her rights she has and also the way to achieve them.

#### **Women empowerment in rural areas:**

The imitative also engages with governments to develop and implement laws and policies that promote equal rights ,opportunities and participation so that rural woman can benefit from trade and finance, market their goods and make a strong contribution to inclusive economic growth.

#### **Empowerment Status:**

‘Status’ refers to a particular situation or position that one’s has during a process in a particular time and the term “Empowerment

status” refers to the present condition or situation of empowerment. In this study “Empowerment

**Education:**

Education is the process through which an individual develop fully in all dimensions-social, intellectual, moral, emotional, linguistic ect.itwill be the best definition in explaining education-By education I mean an all round drawing out of the best in child and man-body, mind and spirit, literacy is not the end of education or even the beginning, “By M.K. (Gandhi (Kumar.)

**Socio economic problems of rural women:** Women workers ‘face many issued such as long hours of work, low wages, meager rates per piece, lack of social security and lack of union and organizational support, More importantly, their conditions of work and health are terrible, The present study has followed the descriptive research method to carry out the survey.

**Financial Literacy:** The most common definition of financial literacy is “the ability to make appropriate decisions in managing their personal finances”. The definition is incomplete in the sense that it expresses more on the results rather than the competencies of achieving sound results.Hence,Financial literacy is a combination of skills and knowledge that make you take sound financial decisions that impact your financial well-being. Financial literacy as defined by organization for Economic Cooperation and Development (OECD) 2011 is “A combination of awareness, knowledge, skill, attitude and behavior necessary to make sound financial education is not only essential for investors but for every household which is trying to balance its income and expenses. Financial education programmers must be designed in such a way as to best address these needs.

**Rural woman’s havening problems of digital transaction:** Door-to-Door campaigns and surveys are being conducted by the help of NGOs, Business correspondents (BCs), self-Help Groups (SHGs) to literate and aware people about digital payments, especially in villages and rural areas. One approach is to implement digital literacy projects in rural areas, providing access to digital technologies and training on their effective use. Additionally, efforts should be made to raise awareness about the importance of digital literacy and its benefits, especially in rural communities.

## **Aims & objectives**

This study aim find out

- 1) To understand the social and economical position of rural women's of Kolhapur district.
- 2) To understand the financial management rural women's Kolhapur district.
- 3) To understand the digital transaction knowledge of rural area Kolhapur district.
- 4) To explorer the rural woman's havening problems of digital transaction at rural & area of Kolhapur district.
- 5) To understand the attitude for financial management of rural women's Kolhapur district.

**Need of study:** Empowering women is essential to the health and social development of families, communities and countries. When women are living safe, fulfilled and productive lives, they can reach their full potential.contruting their skills to the workforce and can raise happier and heather children.

**Suggestion:** The overall Women empowerment status of rural area women is not so much from both good and bad. It is proves increasing status of women empowerment. Most of the women's are educationally, psychotically and technologically empowered. Women's responses rate highest in this dimension, Social Restriction and education disabilities, lowest status in the hierarchy ,It is observed that 86.66% of the respondents lacked knowledge of the new idea of business government should develop program awareness about government policy also government should develop a workshop for improving their confidence level and risk-taking ability in this business. Rural area women are in Kolhapur District's.

## **Conclusion:**

Studies have shown that number of rural area in India is increasing positively. Rural entrepreneurs, studies have shown that the number of Women Empowerment through the Digital Transaction and Financial Management of Rural areas Kolhapur District. The Government is making efforts to increase the participation of rural women in economic activities. Political apathy is one of the major obstacles in the way. The support of governmental and non-government organization is needed to promote and motivate rural area women. in order to develop the

country, it is necessary to increase the participation of the underprivileged in India.

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## Digital Payment Adoption and Implications: A Case Study of Latur District

Dr. S. V. Dongare  
N. L. Kshirsagar

### Abstract

The advent of digital payment technologies has revolutionized the traditional mode of conducting financial transactions globally. This research paper delves into the adoption and implications of digital payment systems, with a special focus on Latur District, India. Through a mixed-method approach, including surveys, interviews, and data analysis, the paper investigates the factors influencing the adoption of digital payment methods in Latur District, as well as the socio-economic implications of this transition. Findings suggest that while digital payment adoption is increasing in Latur District, several challenges persist, including infrastructure limitations, awareness gaps, and security concerns. The paper concludes by providing recommendations for policymakers, financial institutions, and other stakeholders to further promote the adoption of digital payment systems in Latur District.

**Keywords:** Digital payment, Latur District, adoption, implications, India

### Introduction

The landscape of financial transactions has witnessed a significant transformation with the emergence of digital payment technologies. In recent years, the proliferation of smart phones, internet connectivity, and government initiatives have accelerated the adoption of digital payment systems, reshaping how individuals and businesses conduct transactions. Latur District, situated in the state of Maharashtra, India, stands as a microcosm of this digital revolution, experiencing both challenges and opportunities in its journey towards a cashless economy.

Latur District, known for its agricultural significance and cultural heritage, has been undergoing rapid urbanization and modernization in recent decades. As part of the broader digital transformation sweeping across India, Latur has seen a surge in the availability and usage of digital payment platforms. From urban centers to remote rural areas, the shift towards digital transactions

has been palpable, albeit with varying degrees of adoption and acceptance.

When we are talking the concept of digital payment options, there are many options available for customers for making payment. They may use card payment, UPI, BHIM, NEFT, RTGS etc. but it is the responsibility of an individual to select the best suitable options of digital payment while making his/her transactions.

### **Research Objective**

1. To delve into the dynamics of digital payment adoption in Latur District.
2. To shedding light on the factors influencing its uptake and the socio-economic implications of this transition.
3. To understanding of the digital payment landscape in Latur and offer actionable insights for policymakers, financial institutions, and other stakeholders.

### **Research Methodology**

This research paper uses a quantitative and descriptive type of research methodology to analyse the growth of digital transactions in Latur District. The data on digital transactions has been collected from various sources such as the News Paper, the National Payments Corporation of India, and other relevant government reports. The study is based on secondary data collected from various organisations.

### **Digital Payment Landscape in India**

#### **Evolution of Digital Payment Systems**

The evolution of digital payment systems can be traced back to the introduction of credit cards and electronic fund transfers (EFTs) in the mid-20th century. However, the real revolution began with the advent of internet-based payment solutions in the late 20th and early 21st centuries. Technologies such as PayPal, introduced in 1998, paved the way for secure online transactions, laying the foundation for the digital payment ecosystem we see today. Subsequent innovations, including mobile wallets, contactless payments, and peer-to-peer (P2P) payment platforms, have further diversified the range of digital payment options available to consumers and businesses.



## **Factors Influencing Digital Payment Adoption**

Numerous factors influence the adoption of digital payment systems, including technological infrastructure, regulatory environment, consumer behavior, and socio-economic factors. Technological infrastructure, such as access to smartphones and internet connectivity, plays a critical role in enabling digital payments. Moreover, regulatory initiatives, such as the implementation of interoperable payment systems and Know Your Customer (KYC) norms, can significantly impact adoption rates by enhancing security and convenience. Consumer behavior and preferences also play a crucial role, with factors such as trust, perceived security, and ease of use influencing adoption decisions. Additionally, socio-economic factors, including income levels, education, and cultural norms, shape the adoption landscape, with disparities existing between urban and rural areas and across different demographic segments.

## **Socio-economic Implications of Digital Payment Adoption**

The widespread adoption of digital payment systems has profound socio-economic implications, both at the individual and societal levels. Financial inclusion, for instance, is enhanced through increased access to formal banking services and the ability to conduct digital transactions. This, in turn, can promote economic empowerment and reduce reliance on cash-based economies, particularly in rural and underserved areas. Moreover, digital payments contribute to greater transparency and accountability, reducing the prevalence of corruption and illicit financial activities. However, challenges such as digital divide, cyber security threats, and data privacy concerns must be addressed to realize the full socio-economic benefits of digital payment adoption.

## **Growth and Adoption Trends**

The adoption of digital payment systems in India has witnessed significant growth in recent years, driven by factors such as increasing smart phone penetration, expanding internet connectivity, and the proliferation of digital wallets and payment apps. The UPI, launched in 2016, has emerged as a popular and interoperable platform for peer-to-peer and merchant payments, experiencing exponential growth in transaction volumes and value. Mobile wallets, such as Paytm, Phone Pay, and Google Pay, have

also gained traction, offering users a convenient and secure means of conducting transactions. Moreover, initiatives such as the Bharat Bill Payment System (BBPS) and Aadhaar-enabled Payment System (AePS) have further diversified the digital payment landscape, catering to diverse consumer needs and preferences.

### **Challenges and Opportunities**

Despite the progress made in promoting digital payments, several challenges persist in India's digital payment landscape. Infrastructure limitations, including inadequate internet connectivity and digital literacy, pose barriers to adoption, particularly in rural and semi-urban areas. Moreover, concerns related to cyber security, data privacy, and fraud remain key challenges that need to be addressed to enhance consumer trust and confidence in digital payment systems. However, these challenges also present opportunities for innovation and collaboration among stakeholders to develop user-friendly and secure payment solutions that cater to the diverse needs of India's population. Additionally, initiatives such as the National Digital Payment Mission (NDPM) and partnerships between government agencies, financial institutions, and technology companies hold promise for further accelerating the adoption of digital payments and driving inclusive growth across the country.

### **Factors Influencing Digital Payment Adoption in Latur District Infrastructure Accessibility**

One of the primary factors influencing digital payment adoption in Latur District is the accessibility of digital infrastructure. This includes factors such as internet connectivity, availability of smart phones, and the presence of point-of-sale (POS) terminals. While urban areas may have relatively better infrastructure, rural and remote parts of Latur District may face challenges such as poor internet connectivity and limited access to smart phones. The availability of reliable and affordable digital infrastructure plays a crucial role in enabling individuals and businesses to access and utilize digital payment services effectively.

### **Socio-economic Factors**

Socio-economic factors such as income levels, education, and occupation also influence digital payment adoption in Latur District. Higher-income individuals and those with formal employment are more likely to adopt digital payment methods due to their greater

access to financial resources and familiarity with technology. On the other hand, individuals with lower incomes or engaged in informal sectors may rely more heavily on cash-based transactions due to limited access to banking services and digital literacy. Moreover, educational attainment and awareness of digital payment options also play a significant role in shaping adoption patterns, with better-educated individuals being more likely to embrace digital payment solutions.

### **Awareness and Education**

Awareness and education about digital payment options and their benefits are crucial determinants of adoption in Latur District. Many individuals, especially in rural and semi-urban areas, may lack awareness of the existence and advantages of digital payment systems. Efforts to educate the population about the convenience, security, and cost-effectiveness of digital payments can help overcome barriers to adoption. This includes conducting awareness campaigns, providing training programs, and leveraging local community networks to disseminate information about digital payment options and how to use them effectively.

### **Security and Trust**

Security concerns and trust in digital payment systems are paramount for adoption in Latur District. Many individuals may hesitate to adopt digital payment methods due to fears of fraud, identity theft, or data breaches. Building trust in digital payment platforms requires implementing robust security measures, such as encryption, multi-factor authentication, and fraud detection systems. Additionally, transparent communication about security practices and regulatory protections can help instill confidence among users. Collaborative efforts between government agencies, financial institutions, and technology providers are essential for addressing security concerns and fostering trust in digital payment systems among the population of Latur District.

### **Socio-economic Implications of Digital Payment Adoption**

#### **Financial Inclusion**

Digital payment adoption in Latur District has the potential to enhance financial inclusion by providing access to formal financial services for underserved populations. By offering alternative channels for conducting financial transactions, digital payment

systems can enable individuals who were previously excluded from the formal banking sector to participate in the economy. This includes rural residents, small-scale entrepreneurs, and marginalized communities who may have limited access to traditional banking infrastructure. Moreover, digital payment platforms can facilitate the disbursement of government subsidies, welfare benefits, and remittances, thereby promoting financial empowerment and reducing poverty levels in Latur District.

### **Impact on Informal Economy**

The adoption of digital payment systems in Latur District can also have implications for the informal economy. Cash-based transactions have historically dominated informal sectors such as agriculture, retail, and services in the district. However, the shift towards digital payments can lead to greater formalization of economic activities by bringing transactions into the formal financial system. This can result in improved transparency, tax compliance, and access to credit for small businesses and entrepreneurs. Moreover, digital payment data can provide valuable insights into consumer behavior and market trends, enabling businesses to make more informed decisions and drive economic growth in Latur District.

### **Efficiency and Transparency**

Digital payment adoption in Latur District can contribute to the overall efficiency and transparency of the economy by reducing the reliance on cash and streamlining financial transactions. Digital payment platforms offer faster, more convenient, and cost-effective alternatives to cash-based transactions, thereby improving the efficiency of payment processes for individuals and businesses alike. Moreover, the digital trail left by electronic transactions enhances transparency and accountability, making it easier to track and monitor financial flows, detect fraudulent activities, and combat corruption. This can lead to greater trust in the financial system and promote a more conducive environment for economic development and investment in Latur District.

### **Challenges and Barriers**

#### **Infrastructure Limitations**

One of the primary challenges hindering digital payment adoption in Latur District is the lack of adequate digital

infrastructure. This includes limited internet connectivity, especially in rural and remote areas, as well as the absence of reliable electricity supply necessary for powering digital devices. Without robust digital infrastructure, individuals and businesses face difficulties accessing and utilizing digital payment platforms effectively. Moreover, the availability of point-of-sale (POS) terminals and other digital payment acceptance devices may be limited in certain areas, further impeding adoption efforts.

### **Security Concerns**

Security remains a significant barrier to digital payment adoption in Latur District. Many individuals, particularly those with limited exposure to technology, express concerns about the security of their personal and financial information when using digital payment platforms. Instances of data breaches, identity theft, and fraudulent transactions undermine trust in digital payment systems and deter adoption. Addressing security concerns requires implementing robust security measures, such as encryption, authentication protocols, and fraud detection mechanisms, to safeguard users' sensitive information and transactions.

### **Behavioral Resistance**

Behavioral resistance to change poses another challenge to digital payment adoption in Latur District. Cash transactions have long been ingrained in the daily lives and cultural practices of individuals and businesses in the district. Convincing people to switch to digital payment methods requires overcoming inertia and skepticism towards new technologies. Moreover, some segments of the population, particularly elderly individuals and those with limited digital literacy, may struggle to adapt to digital payment interfaces and procedures. Educating and incentivizing users to embrace digital payments while addressing their concerns and preferences is essential for overcoming behavioral resistance and fostering adoption.

### **Digital Literacy and Awareness**

Limited digital literacy and awareness about digital payment options pose additional barriers to adoption in Latur District. Many individuals, especially in rural and semi-urban areas, may lack the necessary skills and knowledge to navigate digital payment platforms effectively. Moreover, awareness about the benefits,

features, and usage of digital payment systems may be low among certain demographic groups. Addressing these challenges requires comprehensive education and awareness campaigns aimed at increasing digital literacy, informing the population about available digital payment options, and providing training on how to use them securely and effectively.

### **Conclusion**

In conclusion, the adoption of digital payment systems in Latur District presents both opportunities and challenges in the journey towards a cashless economy. While digital payment adoption is on the rise, several barriers, including infrastructure limitations, security concerns, behavioral resistance, and digital literacy gaps, need to be addressed to realize the full potential of digital payments in the district.

Through this research paper, we have explored the factors influencing digital payment adoption in Latur District, including infrastructure accessibility, socio-economic dynamics, awareness and education, and security and trust. Additionally, we have examined the socio-economic implications of digital payment adoption, including financial inclusion, formalization of the informal economy, and improvements in efficiency and transparency.

Policy recommendations have been provided to address these challenges and foster greater adoption of digital payment systems in Latur District. These recommendations include investment in digital infrastructure, awareness campaigns, enhanced security measures, incentives for adoption, and collaboration among stakeholders.

It is imperative for government agencies, financial institutions, technology providers, and civil society organizations to work together to implement these recommendations and create an enabling environment for digital payment adoption in Latur District. By doing so, we can promote financial inclusion, drive economic growth, and enhance transparency and efficiency in the district's economy.

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