



ONLINE PAYMENT – THE RISK AND GROWTH OF FINANCIAL TECHNOLOGY IN INDIA MET INSTITUTE OF PGDM

SAGAR SHAH, PROF CA SEEMA KORGAONKAR

1. Abstract

This research delves into the realm of online payments in India, examining both the risks associated with this burgeoning sector and the pivotal role played by financial technology (FinTech) in fostering its growth. Through a comprehensive analysis of regulatory dynamics, consumer behaviour, and technological innovations, the study identifies potential challenges like fraud and data breaches. Additionally, it investigates how FinTech solutions, leveraging technologies such as blockchain and artificial intelligence, contribute to bolstering the security and efficiency of online payment systems. The research also explores collaborative efforts between traditional financial institutions and FinTech startups to create a resilient digital financial ecosystem. By shedding light on these aspects, the study aims to offer insights that can guide policymakers, financial institutions, and FinTech entrepreneurs in shaping a secure and robust landscape for online payments, promoting financial inclusion and sustainable growth in India.

2. Introduction

The landscape of financial transactions has undergone a paradigm shift in India with the advent of online payments, driven by technological advancements and the rapid rise of financial technology (FinTech). As digital transactions become increasingly integral to the nation's economic fabric, it becomes imperative to scrutinize the risks associated with online payments and concurrently understand the role FinTech plays in nurturing this sector's growth. This research endeavors to provide a nuanced exploration of the intricate dynamics shaping the online payment ecosystem in India.

In recent years, the adoption of online payment methods has witnessed a significant surge, transformed traditional financial interactions and facilitated greater financial inclusion. However, this evolution is not without its challenges. Risks such as fraud, data breaches, and system vulnerabilities pose significant threats to the seamless functioning of online payment systems. Understanding and mitigating these risks are critical for sustaining the momentum of digital financial transactions and ensuring the security of users' financial assets.

At the intersection of these challenges and opportunities lies the realm of FinTech. This study seeks to dissect how FinTech innovations act as catalysts in overcoming the hurdles posed by risks in online payments. The exploration encompasses an analysis of technological breakthroughs, regulatory frameworks, collaborative endeavors between traditional financial institutions and FinTech startups, and the overall impact on the growth trajectory of online payments in India. By unraveling these intricacies, the research aims to offer valuable insights to stakeholders, guiding them in navigating a landscape that seamlessly merges technological advancements with risk mitigation strategies, fostering a robust and inclusive digital financial ecosystem in India.

2.1 SWOT ANALYSIS

<p><u>2.1.1 Strengths</u></p> <ul style="list-style-type: none"> • Growing Digital Adoption • Innovative Technologies • Government Support • Evolving Infrastructure • Diverse Payment Options 	<p><u>2.1.2 Weaknesses:</u></p> <ul style="list-style-type: none"> • Cybersecurity Vulnerabilities • Digital literacy Challenges • Internet Reliance • Transaction Costs • Limited Merchant Acceptance
<p><u>2.1.3 Opportunities:</u></p> <ul style="list-style-type: none"> • Financial Inclusion • Partnerships and Collaborations • Technological Advancements • Government Digital Initiatives • Global Expansion 	<p><u>2.1.4 Threats</u></p> <ul style="list-style-type: none"> • Regulatory Uncertainty • Intense Competition • Consumer Trust Erosion • Infrastructure Gaps • Economic and Political Factors

3. Literature Review

3.1 According to Mamta, Prof. Hariom Tyagi and Dr. Abhishek Shukla(2016) the paper titled "Electronic Payment Systems: An Analysis." With a view to enhancing the quality of electronic payments, this study intends to pinpoint the problems and difficulties facing the electronic payment system and provide some remedies. How the security and privacy aspects are widely controlled by both buyers and sellers will determine how well an electronic payment system is implemented, which will increase consumer and seller confidence in the system.

3.2 According to Sujith T S, Julie C D(2017) "Opportunities and Challenges of E-Payment System in India," an article. The objective of this research was to recognize the problems and obstacles associated with electronic payment systems and provide recommendations for enhancing them. Electronic payment systems offer numerous advantages, but they also present numerous risks. According to the report, digital payments are becoming more widely accepted in rural locations due to the expansion of mobile networks, the Internet, and electricity. The quantity of digital payments will undoubtedly rise as a result.

3.3 According to Sanghita Roy and Dr. Indrajit Sinha (2014) The article titled "In Indian Banking Sector: Determinants of Customers' Acceptance of Electronic Payment System" The study's goal was to identify the most widely used electronic payment method among the available choices. The degree of awareness and use of e-payment technologies were also examined in this study. The primary goal of the research was to identify every element affecting the customer's adoption of the technology acceptance model. The primary data for the study were used. A survey with a structured questionnaire was utilized to gather the data, which was likewise concentrated on a sample of thirty respondents. The study's findings identified four factors—innovation, incentive, customer convenience, and legal framework—that support India's e-payments system and help it grow.

3.4 According to Ashish Baghla (2018) The reception of computerized installments in India was the essential focal point of this examination paper, which was named "A Concentrate on the Fate of Advanced Installments in India." This paper recognizes the issues or challenges looked by people of India in embracing Progressed strategies for portion. Figuring out how individuals in India feel about utilizing advanced installment strategies was one of the objectives of this review. The information in this investigation was gathered from both the essential and optional sources, with the essential information coming from a survey of 110 people. The paper contemplated

that the undertakings by the public power to make India credit just is sorting out positively anyway it will require venture for India to end up being absolutely acknowledge just as there are various challenges which the public power needs to manage.

3.5 According K. Suma Vally and Dr. K. Hema Divya (2018) This exploration paper named " A Concentrate on Computerized Installments in India with point of view of buyers reception." centers around the examination of the degree of reception of these computerized installments by the shoppers. The examination philosophy utilized that is the information gathered is an essential information and is gathered through an organized poll and the outcomes has been gathered through 183 respondents. The exploration apparatus used to break down the information is Chisquare strategy. The primary target of this study was to check the clients discernment on Advanced Installment with the idea of Computerized banking in our country. This concentrate likewise recommended that fitting measures ought to be taken to make mindfulness about different innovation and security of the use of advanced installments in India.

4. Study Objectives

- 4.1 To analyze the current state of online payment systems, including the technologies and platforms being used in India.
- 4.2 To investigate the challenges and risks involved in online payments.
- 4.3 To examine the growth potential of the online payment industry, including the opportunities for innovation and expansion in areas such as mobile payments, peer-to-peer transactions, and cross-border payments.

5. Methodology Adopted

The study conducted is based on primary data, all data is first handed collected from the questionnaire circulated. The questionnaire is made to collect the data about the awareness of the online payments – risk and growth of financial sector in India.

6. Hypothesis

A hypothesis is a proposed explanation for the research problem to be solved. The integral part of a research project is the framing of the hypothesis. Hypothesis framed must be clear, precise and specific. Hypothesis framed should consider the objectives of the research. There are two types of hypothesis i.e Null hypothesis and Alternative hypothesis.

The null hypothesis states that there is no relation between the variables. The alternative hypothesis states that there is relation between the variables. The Hypothesis designed should help us to find if there is any relation between the variables that is being studied in the research project.

Hypothesis:

H0: There is no significant relationship between digital wallets and consumer satisfaction.

H1: There is significant relationship between digital wallets and consumer satisfaction.

7. Analysis

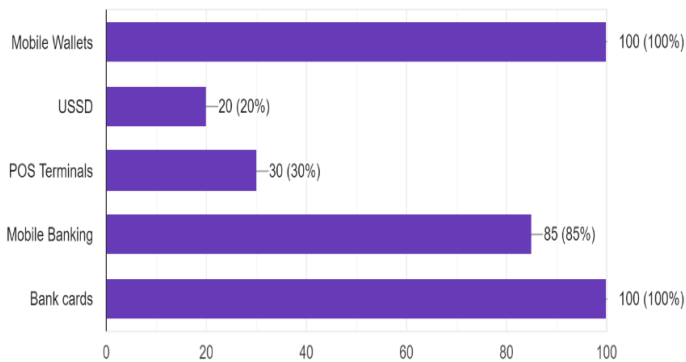
7.1 Questionnaire Analysis

The collected data was analyzed by using pie-charts and the analysis of the collected data is given bellow. Data analysis helps us to draw a conclusion or a result to our research problem. The research includes all age groups, gender, location – Mumbai with 100 respondents for the research.

7.1.1. What are the general types of online payments you have used?

What are the general online payments you have used?(Minimum 1)

100 responses



Interpretation

Mobile wallets: 100% of respondents have used mobile wallets for online payments.

Bank cards: 100% of respondents have used bank cards for online payments.

Mobile banking: 85% of respondents have used mobile banking for online payments.

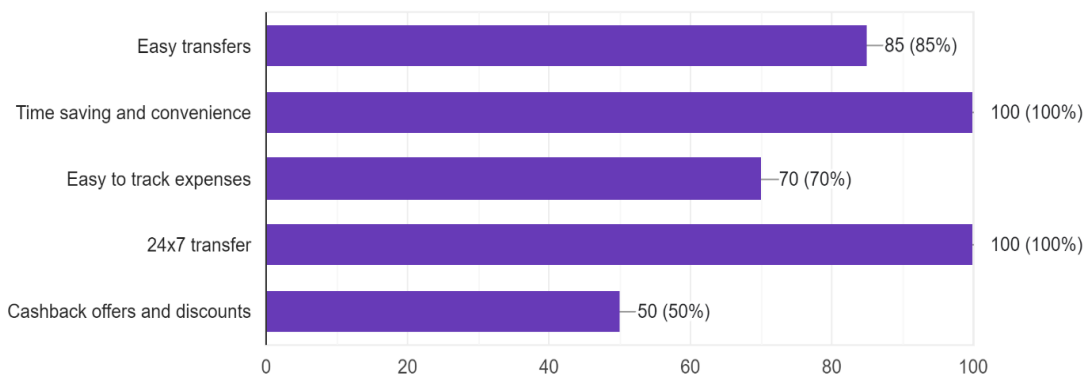
POS terminals: 30% of respondents have used POS terminals for online payments.

USSD: 20% of respondents have used USSD for online payments.

7.1.2. Why would you adopt online payments over physical payments?

Why would you adopt online payment over physical payments?

100 responses



Interpretation

Time saving and convenience (100%): This was the most cited reason, indicating that people appreciate the speed and ease of online transactions compared to carrying cash or using cards physically.

Easy to track expenses (70%): Online payments often provide detailed transaction records, making it easier to manage and monitor spending.

24x7 transfer (100%): The ability to make and receive payments anytime, regardless of the day or time, was another major advantage.

Less popular reasons, but still noteworthy:

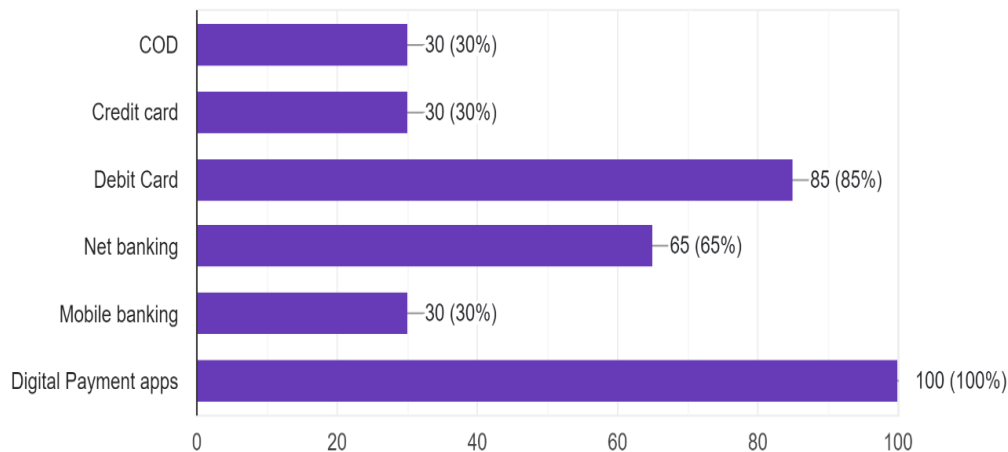
Easy transfers (85%): The simplicity of sending and receiving money online was seen as a benefit by many respondents.

Cashback offers and discounts (50%): Some people find the potential for rewards and savings through online payments appealing.

7.1.3. What type of payment gateways do you use for making payments online?

What payment gateways do you use for making online payments?

100 responses



Interpretation

Digital Payment apps: 100% - This category likely includes popular mobile wallets like PhonePe, Google Pay, Paytm, and Amazon Pay.

Debit Cards: 85% - Debit cards offer convenience and security for online transactions, making them a preferred choice for many users.

Net Banking: 65% - Net banking allows direct transfers from bank accounts, providing a familiar and secure option for some users.

Mobile Banking: 30% - Mobile banking apps offer similar functionalities to net banking, often with the added convenience of on-the-go access.

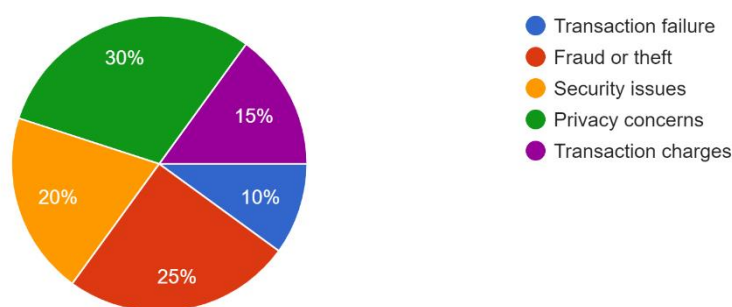
Credit Cards: 30% - Credit cards provide benefits like purchase protection and reward points, but their usage might be lower due to concerns about debt or limited credit availability.

COD (Cash on Delivery): -30% - While not a truly "online" payment method, COD remains an option for some users who prefer paying in cash upon delivery.

7.1.4. What is the biggest concern while adopting for online payments?

What is the biggest concern while opting for online payments?

100 responses



Interpretation

Transaction failure: 30% of respondents identified transaction failure as their biggest concern. This could include issues like payments not going through, technical errors during transactions, or delays in processing payments.

Fraud or theft: 15% of respondents were most concerned about the risk of fraud or theft, such as unauthorized access to their accounts or stolen financial information.

Security issues: 20% of respondents cited security issues as their top concern, encompassing worries about data breaches, weak security protocols, or the vulnerability of online payment platforms.

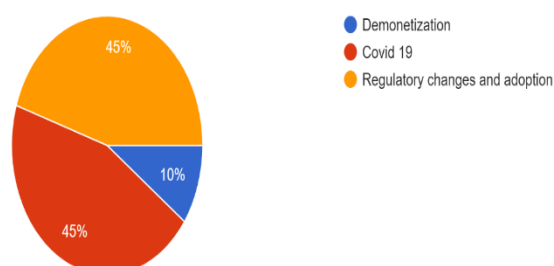
Privacy concerns: 10% of respondents were most concerned about their privacy, including the potential for personal information to be collected, shared, or misused during online transactions.

Transaction charges: 25% of respondents listed transaction charges as their biggest concern. This could involve fees associated with specific payment methods, hidden charges within transactions, or unexpected costs.

7.1.5. What according to you is the main reason for shift from physical payments to cashless payments?

What according to you is the main reason for the shift from physical payment to cashless payments?

100 responses



Interpretation

45% respondents think that the major shift is due to the regulatory changes and adoption to the new technologies with the changing world and environment.

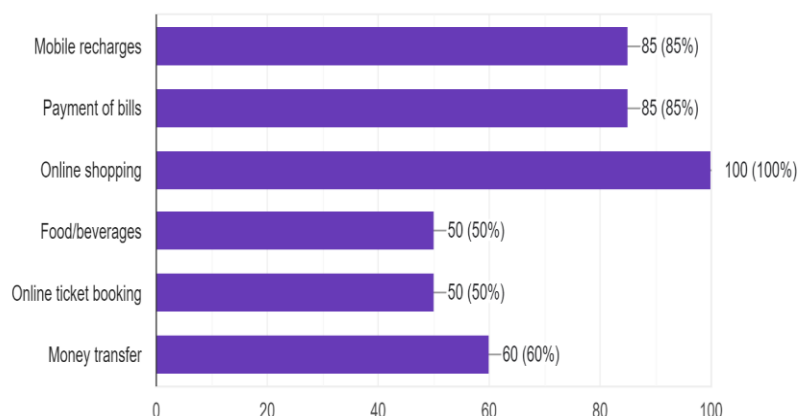
45% respondents think that COVID 19 has caused the shift. This is because after COVID 19 the usage of the UPI apps and online payments have increased.

10% believe demonetization to be the reason since it helped in curbing the black money.

7.1.6. What are the types of purchases you do using online payment methods?

What are the types of purchases you do using online payment methods? (Select upto 3)

100 responses



Interpretation

85% respondents use online payment for mobile recharges, payment of bills.

100% respondents use online payment for online shopping through various websites.

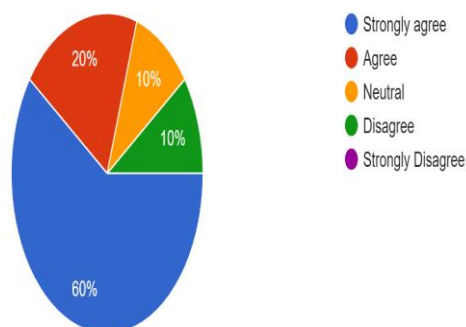
50% use online payment for order food/beverages, for online ticket booking.

60% use online payment for money transfer.

7.1.7. According to you are the government policies helpful for the citizens to adopt online payments?

According to you, are government policies helpful for the citizens to adopt online payments?

100 responses



Interpretation

60% strongly agree that government policies and regulations are encouraging the use of online payments.

20% agree that government policies and regulations are helpful to the citizens.

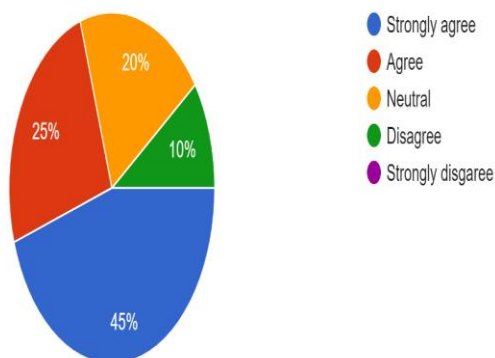
10% agree neutrally since they may find few policies helpful while some not.

10% disagree to the government policies being helpful. This may be due the section not being aware of the technology and would require digital literacy for accessing it.

7.1.8. Do you think going cashless is beneficial for the economic growth of India?

Do you think going cashless is beneficial for the economic growth of India?

100 responses



Interpretation

45% strongly agree since it helps in ease of transactions, instant money transfer, curbing the black money in the system.

25% also agree to the above point.

Whereas 20% are still not sure whether India should go completely cashless. It may be because of the risks and challenges but government is trying to adopt the change for betterment of all.

10% disagree to India becoming a cashless economy since the challenges are huge and to cater all of them is difficult for the country.

7.2. Risks Involved in Digital Transactions

Digital transactions, while convenient and widely used, come with certain risks that users should be aware of. Here are some common risks associated with digital transactions:

- 1) **Hacking and Unauthorized Access:** Hackers may attempt to gain unauthorized access to digital payment systems, compromising user data and financial information.
- 2) **Phishing Attacks:** Users may fall victim to phishing scams where attackers trick them into revealing sensitive information like passwords or OTPs.
- 3) **Identity Theft:** Personal information provided during digital transactions can be targeted for identity theft, leading to unauthorized access to bank accounts and other financial services.
- 4) **Fraudulent Transactions:** Cybercriminals may engage in fraudulent activities, such as making unauthorized transactions, using stolen credentials, or exploiting vulnerabilities in the payment system.
- 5) **Malware and Viruses:** Malicious software can infect devices and compromise security, potentially capturing sensitive information such as login credentials or financial details.
- 6) **Transaction Failures:** Technical glitches, system outages, or connectivity issues can result in transaction failures, leading to inconvenience and potential financial losses.
- 7) **Data Privacy Concerns:** Users may be concerned about the collection, storage, and sharing of their personal and financial data by service providers, raising issues related to privacy.
- 8) **Lack of Consumer Protection:** In some cases, consumers may face challenges in resolving disputes, especially if the digital transaction platform lacks robust customer support or effective dispute resolution mechanisms.
- 9) **Device Security:** The security of the device used for digital transactions is crucial. If the device is not adequately protected with passwords or biometric security, it becomes more vulnerable to unauthorized access.
- 10) **Dependency on Technology:** Users may face disruptions in their ability to transact if there are technical issues, network outages, or if the user is not familiar with the technology.

To mitigate these risks, users should follow best practices, such as using secure and updated devices, adopting strong passwords, enabling two-factor authentication, being cautious of phishing attempts, and regularly monitoring their financial accounts for any unauthorized activity. Additionally, choosing reputable and secure digital transaction platforms with robust security measures can contribute to a safer digital transaction experience.

7.3. Policies and Regulations Supporting Digital Payments

Several initiatives have been taken by the Government and the RBI in the digital payments space this year. The RBI is focused to regulate and streamline the entire payments ecosystem to secure the end consumer and also lay the path for further growth in digital payments adoption in the country. To make this industry more inclusive and to better understand the concerns and growth prospects, the RBI continuously releases consultation papers through which it intends to understand the perspective of the various stakeholders. For the first time, the RBI conducted two industry workshops and discussions with Indian FinTechs in FY 2022–2023, held in Kashmir and Kochi, where the RBI and participants deliberated upon various topics and the discussions were later formalised into policies and notifications. Some of the key initiatives taken by the RBI in FY 2022–2023 have been given below:

- 1) UPI123PAY: The RBI launched UPI123PAY in March 2022 to enable feature phone users to make payments through UPI. This will enable 400 million feature phone users to adopt digital payments.
- 2) DigiSaathi: In March 2022, the RBI and NPCI launched DigiSaathi – a 24x7 helpline with a website, chatbots and toll-free calls, which addresses user queries and shares information about all digital payment products to increase awareness of digital payments.
- 3) Framework for geo-tagging of payment system touch points⁹ : In March 2022, the RBI issued a framework to capture geo-tagging information of payment system touch points provided by banks and non-banks payment service operators. The same information needs to be reported to the RBI to help them monitor and understand the penetration of digital payment devices.
- 4) Master direction – credit card and debit card – issuance and conduct directions, 2022: In April 2022, the RBI released master directions for issuers to regulate the issuance and conduct of credit, debit and co-branded cards. These guidelines aim to further improve card security and ensure that proper communication is shared with the cardholders.
- 5) Ban on non-bank PPIs loading through credit lines: In June 2022, the RBI issued a notice to non-bank PPI issuers to not load their wallets and cards through credit lines. This has impacted the BNPL industry as most non-bank BNPL service providers and PPI issuers were allowing customers to load their wallets through credit lines.
- 6) CBDC: The RBI launched a pilot project for both retail and wholesale segments on 1 December 2022, within a closed group. The RBI will take a phase-wise approach for the pilot, starting with four banks out of the eight shortlisted banks. The digital currency will operate for both P2P and P2M models.
- 7) ONDC: Open Network for Digital Commerce (ONDC) is an ecosystem through which the e-commerce industry is going to be revolutionized by moving out of a marketplace or platform based model. It will enable small merchants and local retailers to build their businesses online. Presently, the Indian e-commerce market penetration is around 8% which ONDC aims to increase to 25% by FY24-25.

7.4. Future of Digital Payments in India

India presents a massive opportunity for digital payments due to its large population, increasing smartphone penetration, and the government's push towards a cashless economy. Here are some of the future opportunities:

Increased adoption in rural areas: While digital payments have gained significant traction in urban areas, there is still a vast untapped market in rural areas. The government's focus on financial inclusion and expanding digital infrastructure in rural areas presents a massive opportunity for digital payment providers to tap into this market.

Integration with e-commerce: With the increasing popularity of e-commerce in India, there is an opportunity for digital payment providers to integrate with online marketplaces and provide a seamless payment experience for consumers. This will increase its adoption and drive e-commerce growth in the country.

Adoption of new payment technologies: India has seen significant innovation in new payment technologies, including QR codes, contactless payments, and biometric authentication. As these technologies continue to mature, there is an opportunity for new payment providers to offer more secure and convenient payment options to consumers.

Expansion into international markets: With the growing demand for cross-border payments, there is an opportunity for Indian online payment providers to expand their services globally. This will not only help in increasing revenue but also position India as a leader in this field.

Collaboration with traditional financial institutions: Collaboration between digital payment providers and traditional financial institutions can help drive the adoption of digital payments and create new opportunities for innovation. This will also help in providing a more seamless and secure payment experience for consumers.

In summary, the future opportunities for digital payments in India are vast and varied, driven by technological advancements, changing consumer behaviour, and government initiatives. The providers who can leverage these opportunities will be well-positioned to drive growth and innovation in the Indian digital payments landscape.

8. Conclusion

This research paper started by focusing on the meaning of online or digital payment, digital wallet in India. This paper then focused on various digital wallets or online payment application in India like Google pay, PayTm, PhonePe, Mobikwik, etc, then complete explanation about Amazon and amazon pay is stated with the advantages and disadvantages of using amazon pay. An online survey was conducted through structured questionnaire which received responses some of the respondents did not answer the questions accurately which proved to be the limitation of the study. From the survey conducted it can be seen that many people are adopting cashless mode of payment as it has its own pros like it:-reduces time and is convenient to use as well as various online payment apps offers various cashback offers and discounts as well for encouraging people to use digital mode of payment. A consumer can track all their expenses with online payment. As cashless economy or the use of online payment application has its various advantages and disadvantages so if any government is planning to adopt cashless economy should carefully analyse the situation of the country. The government of India is taking efforts to encourage the people of India to use digital modes of payments along with the private sector companies.

9. References

- 9.1. <https://timespro.com/blog/the-future-of-digital-payments-opportunities-and-challenges>
- 9.2. Mamta, Prof. Hariom Tyagi and Dr. Abhishek Shukla –“The Study Of Electronic Payment Systems”. International Journal of Advanced Research in Computer Science And Software Engineering, 2016.
- 9.3. Vidya Shree DV, Yamuna N. and Nitua Shree G “A Study on New Dynamics in Digital Payments System-with reference to Paytm and PayUMoney”, International Journal of Applied Research 2015, 1(10):1002-1005.
- 9.4. PWC Report dated May 2023- The Indian payments handbook.

10. Acknowledgement

I would like to extend my heartfelt gratitude to CA Dr ShyamSundar Das who gave me an opportunity to work under his guidance in this department.

I also would like to convey my sincere thanks to Prof. CA Seema Korgaonkar who has been a constant source of motivation and inspiration and has helped in bring out the best in me.