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An Analysis of Consumer Awareness Regarding Digital Payment Systems in Bengaluru City

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ABSTRACT: The rapid adoption of digital payment systems in India has transformed the financial landscape, particularly in urban centers like Bengaluru. This study analyzes consumer awareness regarding digital payment systems in Bengaluru City, focusing on the factors influencing adoption, usage patterns, and the level of understanding among consumers. With the government's push towards a cashless economy and the increasing penetration of smartphones, digital payments have become an integral part of daily transactions. However, the extent of consumer awareness and knowledge about the various digital payment options, including mobile wallets, UPI, and online banking, remains varied. The study employs a mixed-method approach, combining quantitative surveys and qualitative interviews to gather data from a diverse sample of Bengaluru's population. Findings reveal that while there is a high level of awareness about digital payment systems, significant gaps exist in understanding the security features, benefits, and potential risks associated with these platforms. Younger consumers and those with higher education levels show greater familiarity and confidence in using digital payments. In contrast, older consumers and those with lower education levels are more hesitant, often due to concerns about security and lack of trust. The study underscores the need for targeted awareness campaigns and educational initiatives to bridge these gaps and ensure that all demographic groups can benefit from the convenience and efficiency of digital payments. By enhancing consumer knowledge and addressing security concerns, the adoption of digital payment systems can be further accelerated, contributing to the broader goal of a cashless economy in Bengaluru and beyond.

KEYWORDS: Digital payment systems, Consumer awareness, Cashless economy, Adoption and usage patterns

I. INTRODUCTION

The advent of digital payment systems has revolutionized the way financial transactions are conducted, particularly in urban areas like Bengaluru, often regarded as the tech capital of India. With the proliferation of smartphones and internet connectivity, digital payment platforms have emerged as a convenient, fast, and secure alternative to traditional cash transactions. These systems, encompassing mobile wallets, Unified Payments Interface (UPI), online banking, and contactless payment options, have been integral to the government's push towards a cashless economy. The transition to digital payments is seen as a critical component in improving financial inclusion, enhancing transparency, and reducing the costs associated with cash handling.

However, the success of this transition depends significantly on consumer awareness and their ability to navigate the digital payment landscape confidently. While the adoption of digital payment systems has seen substantial growth, particularly post-demonetization and during the COVID-19 pandemic, the extent of consumer understanding and awareness of these systems remains uneven. This variability in awareness is influenced by factors such as age, education level, income, and technological familiarity, which in turn affect the adoption and usage patterns of digital payments. Bengaluru, with its diverse and tech-savvy population, provides an ideal setting to analyze consumer awareness regarding digital payment systems. The city is home to a large number of young professionals, students, and tech workers, many of whom are early adopters of digital technologies. However, Bengaluru also has a significant population of older residents, lower-income groups, and individuals with limited access to digital literacy, who may face challenges in adopting and using digital payment platforms effectively.

Understanding the level of consumer awareness in Bengaluru is crucial for identifying the barriers to broader adoption of digital payments and addressing the concerns of those who are hesitant to embrace these technologies. Awareness not only includes the knowledge of how to use digital payment platforms but also an understanding of the associated

security features, benefits, and potential risks. Security concerns, in particular, have been a significant deterrent for many consumers, with fears of fraud and data breaches often outweighing the perceived convenience of digital transactions. This study aims to provide a comprehensive analysis of consumer awareness regarding digital payment systems in Bengaluru City. By examining the factors that influence consumer knowledge and perception of digital payments, the study seeks to identify the gaps in awareness and the reasons behind them. The research will explore the demographic differences in awareness levels, the impact of educational background and income on digital payment adoption, and the role of government and financial institutions in promoting digital literacy.

Through a mixed-method approach that includes surveys and interviews, this study will gather insights from a diverse cross-section of Bengaluru's population. The findings will offer valuable recommendations for policymakers, financial institutions, and digital payment service providers on how to enhance consumer awareness and encourage the adoption of digital payment systems across all demographic groups. By addressing the challenges and misconceptions surrounding digital payments, the study aims to contribute to the broader objective of fostering a more inclusive and digitally empowered society in Bengaluru and beyond.

II. LITERATURE SURVEY

The adoption and usage of digital payment systems have been the subject of extensive research globally, particularly in the context of developing economies like India. With the rapid technological advancements and the push towards a cashless economy, understanding consumer awareness and behavior towards digital payment systems has become crucial. This literature survey explores various studies that have examined consumer awareness, adoption patterns, and the factors influencing the use of digital payment systems, with a focus on urban settings similar to Bengaluru.

2.1. Global Perspectives on Digital Payment Systems

Studies conducted in various countries highlight the importance of consumer awareness in the adoption of digital payment systems. Research by de Luna et al. (2019) in Spain and other European countries found that consumer awareness of digital payment technologies significantly influenced their adoption and continued use. The study emphasized that awareness campaigns, coupled with user-friendly technology, are crucial in enhancing the adoption of digital payments. Similar findings were observed in a study by Ozili (2018) in Nigeria, which pointed out that awareness and trust are major determinants of digital payment adoption in developing countries, where consumers often lack familiarity with advanced financial technologies.

2.2. Indian Context and Consumer Awareness

In India, the adoption of digital payment systems gained momentum post-demonetization in 2016, which acted as a catalyst for the proliferation of digital transactions. Several studies have since examined consumer behavior and awareness in this rapidly evolving financial landscape. A study by Bansal (2017) explored the factors affecting consumer adoption of digital payment systems in India and highlighted that awareness, perceived ease of use, and perceived usefulness are critical determinants of adoption. The study also pointed out that security concerns significantly impact consumer trust and willingness to adopt digital payment methods.

Kumar and Chaubey (2020) conducted a study focusing on urban India, revealing that while there is a high level of awareness about digital payment systems among urban consumers, there are significant gaps in understanding the security features and the potential risks involved. This gap is more pronounced among older consumers and those with lower levels of education. The study emphasized the need for targeted awareness campaigns to educate consumers about the benefits and risks associated with digital payments.

2.3. Urban Adoption and Challenges

In urban areas like Bengaluru, where technology adoption is generally higher, consumer awareness still varies significantly across different demographic groups. According to a study by Gupta and Arora (2019), younger consumers, particularly those in the age group of 18-35, are more likely to be aware of and use digital payment systems compared to older age groups. The study found that while young professionals and students in cities like Bengaluru are enthusiastic adopters of digital payments, older individuals and lower-income groups are often hesitant, primarily due to concerns about security and a lack of understanding of how these systems work. Another study by Raghavan and Nair (2021) in Bengaluru highlighted the role of educational background in digital payment adoption. The study found that consumers with higher education levels tend to have better awareness and understanding of digital payment systems, which in turn influences their adoption behavior. The research suggested that increasing digital literacy among less educated populations could significantly boost the adoption of digital payments in urban areas.

2.4. Security Concerns and Trust Issues

Security concerns have been consistently highlighted as a major barrier to the adoption of digital payment systems. A study by Sharma and Mahajan (2018) in India found that despite high awareness levels, consumers' fears of fraud, data breaches, and misuse of personal information deterred many from fully embracing digital payment platforms. The study suggested that enhancing consumer trust through robust security measures and transparent communication is essential for increasing the adoption of digital payments.

2.5. Role of Government and Financial Institutions

The role of government and financial institutions in promoting digital payment systems has also been explored in various studies. A report by the Reserve Bank of India (2019) emphasized the importance of government initiatives in promoting digital literacy and ensuring the security of digital transactions. The report suggested that collaborative efforts between the government, financial institutions, and payment service providers are crucial for building consumer confidence and awareness.

III. RESEARCH OBJECTIVES

a. To Assess the Level of Consumer Awareness:

To evaluate the overall level of awareness among consumers in Bengaluru City regarding various digital payment systems, including mobile wallets, UPI, online banking, and contactless payment options.

b. To Identify Factors Influencing Awareness and Adoption:

To examine the demographic factors such as age, education, income, and technological familiarity that influence consumer awareness and adoption of digital payment systems in Bengaluru City.

c. To Analyze Usage Patterns:

To analyze the patterns of usage among consumers who are aware of digital payment systems, including the frequency and types of digital payment methods used, and the factors driving these usage patterns.

d. To Explore Security Concerns and Trust Issues:

To investigate the security concerns and trust issues that consumers in Bengaluru City have regarding digital payment systems, and how these concerns affect their willingness to adopt and use these systems.

e. To Evaluate the Role of Government and Financial Institutions:

To assess the effectiveness of government initiatives and the role of financial institutions in promoting digital payment systems and enhancing consumer awareness and confidence in Bengaluru City.

f. To Provide Recommendations for Improving Awareness and Adoption:

To develop actionable recommendations for policymakers, financial institutions, and digital payment service providers on how to enhance consumer awareness, address security concerns, and encourage the broader adoption of digital payment systems in Bengaluru City.

IV. HYPOTHESES OF THE STUDY

- a. **H1:** There is a significant relationship between demographic factors (age, education, income) and the level of consumer awareness regarding digital payment systems in Bengaluru City.
- b. **H2:** Higher levels of education and income are positively correlated with greater awareness and adoption of digital payment systems among consumers in Bengaluru City.
- c. **H3:** Younger consumers (ages 18-35) in Bengaluru City are more likely to be aware of and use digital payment systems compared to older age groups.
- d. **H4:** Security concerns and trust issues significantly deter consumers in Bengaluru City from adopting and regularly using digital payment systems.
- e. **H5:** Government initiatives and financial institution campaigns have a significant impact on increasing consumer awareness and adoption of digital payment systems in Bengaluru City.
- f. **H6:** Consumers who are more aware of the benefits and security features of digital payment systems are more likely to adopt and use these systems frequently.

V. SCOPE OF THE STUDY

The scope of this study encompasses a comprehensive analysis of consumer awareness and behaviour regarding digital payment systems within the urban context of Bengaluru City. This study aims to investigate the extent to which consumers are aware of various digital payment options, including mobile wallets, UPI, online banking, and contactless payments. The study will focus on identifying the demographic factors that influence awareness levels, such as age,

education, income, and technological familiarity, thereby providing a detailed understanding of the factors driving adoption and usage patterns. Additionally, the study will explore the security concerns and trust issues that may hinder the broader adoption of digital payment systems among different segments of the population. Given the rapid technological advancements and the increasing push towards a cashless economy by the government, this study will also assess the role of government initiatives and the effectiveness of campaigns by financial institutions in promoting digital literacy and consumer confidence in digital transactions. The study is geographically limited to Bengaluru City, a major urban center known for its tech-savvy population and diverse demographics, making it an ideal setting for understanding the dynamics of digital payment adoption. The findings of this study will be valuable not only for policymakers and financial institutions aiming to enhance digital payment penetration but also for technology developers and service providers seeking to address consumer concerns and improve user experience. By focusing on Bengaluru, the study seeks to offer insights that could be applicable to other urban centers with similar characteristics across India.

VI. ANALYSIS AND INTERPRETATION

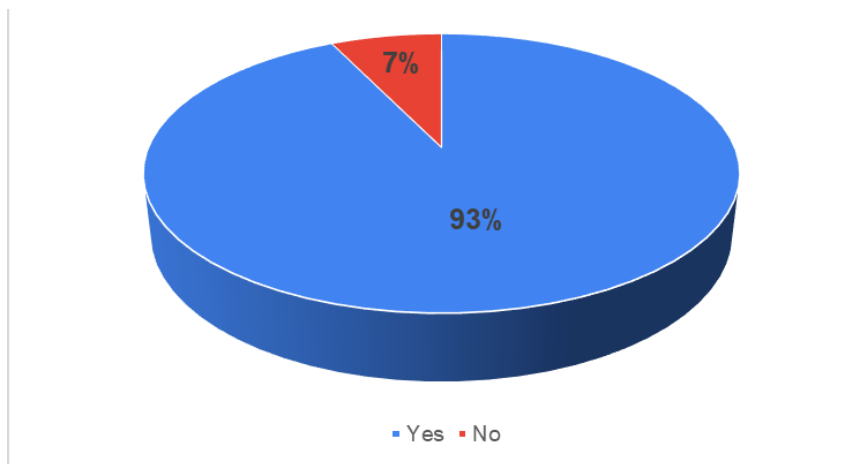


Figure 1.1: Comparison between Awareness and Usage of digital wallets among the respondents

From the survey, it can be observed that 93% of respondents are aware about digital wallets and 7% of respondents are not aware about it

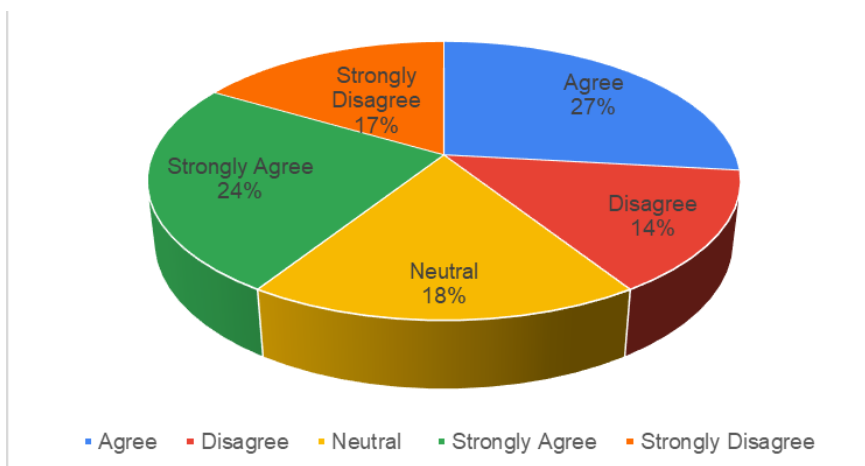


Figure 1.2: Usage of digital wallet amongst respondents

From the above data, we can observe that 93% of our respondents are aware about digital wallets available to them. However, among them around 31% of respondents (strongly disagree 17% and disagree 14%) are unwilling to use them for their financial transactions in spite of being aware of it.

VII. RESULTS AND FINDINGS

The analysis of consumer awareness regarding digital payment systems in Bengaluru City has yielded several key findings:

a. High Awareness Levels Among Younger and Educated Populations:

The study found that there is a high level of awareness of digital payment systems among younger consumers (ages 18-35) and those with higher educational qualifications. These groups are well-informed about various digital payment options such as mobile wallets, UPI, and online banking, and are more likely to adopt and use these technologies regularly.

b. Significant Awareness Gaps in Older and Less Educated Demographics:

Conversely, older consumers and those with lower levels of education exhibit lower levels of awareness and understanding of digital payment systems. This demographic is more likely to be hesitant in adopting digital payments due to a lack of familiarity and confidence in using these technologies.

c. Security Concerns Remain a Major Barrier:

Despite the general awareness of digital payment systems, a significant portion of consumers, particularly among the older population, expressed concerns about the security of digital transactions. Fear of fraud, data breaches, and misuse of personal information were cited as key reasons for their reluctance to adopt digital payments.

d. Income Influences Adoption and Usage Patterns:

The study also revealed that higher-income groups are more likely to adopt digital payment systems and use them more frequently. These individuals are more comfortable with the technology and are less concerned about the risks associated with digital transactions compared to lower-income groups.

e. Role of Government and Financial Institutions:

Government initiatives and awareness campaigns by financial institutions have positively influenced consumer awareness and adoption of digital payments. However, the study suggests that these efforts need to be more targeted, particularly towards older and less educated populations, to bridge the existing awareness gaps.

f. Positive Correlation Between Awareness and Usage:

There is a clear correlation between the level of awareness and the frequency of digital payment usage. Consumers who are more knowledgeable about the benefits and security features of digital payment systems tend to use them more regularly for various transactions.

g. Preference for Traditional Payment Methods Among Certain Segments:

Despite the growth of digital payments, a significant segment of the population, particularly older and lower-income consumers, still prefers traditional payment methods such as cash and checks. This preference is largely driven by habit, perceived ease of use, and distrust of digital platforms.

h. Need for Enhanced Digital Literacy:

The study highlights the need for enhanced digital literacy programs that specifically address the concerns and knowledge gaps of less tech-savvy consumers. Such initiatives could play a crucial role in increasing the adoption of digital payment systems across all demographic groups in Bengaluru.

Overall, the findings underscore the importance of targeted awareness campaigns, improved digital literacy, and addressing security concerns to promote the broader adoption of digital

VIII. SUGGESTIONS

To enhance consumer awareness and adoption of digital payment systems in Bengaluru City, several targeted measures can be implemented:

Targeted Awareness Campaigns:

Tailored awareness campaigns should focus on older populations and those with lower educational backgrounds. These campaigns can be delivered through community outreach programs, local media, and workshops that simplify digital payment concepts and demonstrate their use.

Enhance Digital Literacy:

Government and financial institutions should collaborate to provide digital literacy programs, particularly in neighborhoods with lower technology penetration. These programs should focus on educating consumers about the security features of digital payments, building trust, and teaching practical skills for using these systems effectively.

Address Security Concerns:

It is crucial to address the security concerns that deter many consumers from using digital payment systems. Financial institutions should enhance their communication about the security measures in place, offer clear guidelines on how to protect personal information, and provide quick assistance for any issues related to fraud or misuse.

Leverage Technology for Inclusivity:

Develop user-friendly interfaces for digital payment apps that cater to less tech-savvy individuals, including features like regional language support and voice-guided navigation. This would help make digital payments more accessible to a broader demographic.

IX. CONCLUSION

The analysis of consumer awareness regarding digital payment systems in Bengaluru City reveals a city on the cusp of a digital revolution, yet facing significant challenges that need to be addressed to ensure widespread adoption. While there is a high level of awareness among younger, educated, and higher-income groups, substantial gaps persist among older, less educated, and lower-income populations. These gaps are largely driven by concerns over security, lack of trust, and limited digital literacy, which hinder the broader adoption of digital payment systems. To bridge these gaps, targeted awareness campaigns, enhanced digital literacy programs, and a focus on building trust through improved communication about security features are essential. By addressing the specific needs and concerns of diverse demographic groups, Bengaluru can foster a more inclusive and digitally empowered society. The city's financial institutions, in collaboration with the government, must take proactive steps to ensure that the benefits of digital payments are accessible to all, thereby contributing to the broader goal of a cashless economy. Ultimately, the successful adoption of digital payment systems will depend on continued efforts to educate, reassure, and engage all segments of the population.

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