

**A STUDY ON THE ROLE OF MOBILE BANKING AND DIGITAL PAYMENT APPS IN
FINANCIAL INCLUSION OF URBAN POOR HOUSEHOLDS**

Kemidi ChaithanyaSree, Student,BBA,Department of Management Studies, Bhavan's Vivekananda College of Science, Humanities and Commerce, Sainikpuri, Secunderabad.

Mahammed Niha Azam, Student, BBA, Department of Management Studies, Bhavan's Vivekananda College of Science, Humanities and Commerce, Sainikpuri, Secunderabad.

Dr. K. Suvarchala Rani, Assistant Professor, Department of Management Studies, Bhavan's Vivekananda College of Science, Humanities and Commerce, Sainikpuri, Secunderabad.

ABSTRACT:

This study examines the impact of mobile banking and digital payment apps on financial inclusion among urban poor households, focusing on how these technologies address barriers to traditional banking. Mobile banking enables users to manage financial transactions through mobile devices, while digital payment apps facilitate electronic payments and transfers. This research investigates the influence of enablers such as performance expectancy, economic benefit, convenience, social influence, and technical conditions on the usage of these apps. Data from 51 respondents reveals that PhonePe is the most favored app, often used in conjunction with Google Pay and Paytm. Urban poor households frequently rely on these apps for financial management, demonstrating their significance in bridging gaps left by traditional banking. Despite overall positive perceptions of security and convenience, users face challenges and express mixed feelings about digital payments compared to cash. The study also highlights the critical role of personal recommendations in app adoption. The findings underscore the need for improved app security, reliability, and user education. Future research should explore long-term impacts, regional differences, and the effects of emerging technologies on financial inclusion to enhance understanding and policy-making.

Keywords:Financial Inclusion, Mobile Banking, Digital Payment Apps,Urban Poor Households,Enablers.

INTRODUCTION :

The emergence of transformative tools such as mobile banking and digital payment applications in the contemporary financial landscape has reshaped individual's accessibility and management of financial services. Mobile banking serves as a provision of banking services, by enabling customers to access their bank accounts, conduct transactions, and manage their finances using mobile devices(Saxena and Singh, 2020). Digital payment applications are platforms that enable users to make payments, transfer money, and manage financial transactions electronically using their mobile devices. These apps integrate various payment methods and security features to streamline the transaction process (Jones & Liu, 2021). This evolution is particularly significant in the context of financial inclusion, a critical factor in economic development and poverty elimination. Financial inclusion, broadly defined as the accessibility of financial services to all segments of society, has long been a challenge for urban poor households, who often face barriers such as limited access to traditional banking infrastructure and financial literacy. Urban poor households, often residing in densely populated areas with limited resources, encounter unique challenges in managing their finances. These challenges include inadequate access to banking facilities, higher costs associated with financial transactions, and a lack of tailored financial products. The advent of mobile banking and digital payment apps presents a promising solution to these barriers, offering a range of services from basic account management to more sophisticated financial tools. This research article explores the role of mobile banking and digital payment applications in enhancing financial inclusion among urban poor households. The main objective of this research is to find the impact of usage of mobile banking and digital payment apps on the enablers such as performance expectancy, economic benefit, convenience, social influence, and technical conditions. It investigates how these

technologies are utilized, the benefits they provide, and the obstacles that remain. By examining user experiences, technological adoption rates, and the impact on financial behaviour, this study aims to provide a comprehensive understanding of how digital financial tools can bridge the gap between traditional banking services and the needs of underserved urban populations. The significance of this study lies in its potential to inform policy-making, improve financial service delivery, and contribute to the broader goal of economic empowerment for disadvantaged groups. As digital financial technologies continue to evolve, understanding their impact on financial inclusion will be crucial in developing strategies to support and uplift urban poor households in an increasingly digital world.

REVIEW OF LITERATURE :

Studies have shown that mobile and electronic banking significantly enhances financial inclusion, though disparities persist, such as higher mobile payment app usage among males compared to females. Neelam & Bhattacharya (2023) emphasize the importance of government and NGO interventions through literacy and training programs to increase financial literacy and mobile app usage, especially among poor and uneducated populations. Hassan et al. (2020), through a review of 131 papers from 2010 to 2020, highlight the increasing focus on e-wallets and online payment security, identifying security and interoperability as critical challenges for future research. Building on this, Akanfe, Valecha, and Rao (2020) introduced the Inclusive Financial Privacy Index (INF-PIE) to assess and compare countries' performance in financial privacy and digital inclusion, emphasizing the importance of app privacy policies.

Further, studies by Bruno Lule Yawe et al. (2022) and Aijaz A. Shaikh et al. (2023) underline the role of mobile money and agent characteristics in empowering customers and fostering digital inclusion. While Yawe et al. (2022) discuss the resilience and growth of mobile money and digital payments, especially during the COVID-19 pandemic, Shaikh et al. (2023) emphasizes the need for agent training and addressing privacy and security concerns to boost customer engagement.

Research in Morocco by Azirar et al. (2023) and Ezzahid & Elouaourti (2021) further underscores the effectiveness of mobile money in reducing financial service inequalities, with factors such as age, income, education, and labor market participation playing significant roles in financial inclusion. In India, Dr. Sri Hari et al. (2024) found that the COVID-19 pandemic spurred a significant increase in digital payment adoption, though challenges like limited internet connectivity and financial accounts persist.

In South Africa, Msweli & Mawela (2021) identified low mobile banking adoption rates among the elderly, driven by barriers such as lack of information, security concerns, and complexity, suggesting the need for tailored design principles to improve adoption. In Togo, Afawubo et al. (2019) found that social ties and existing financial relationships facilitate mobile money adoption, which enhances resilience to shocks among disadvantaged groups.

Kim (2021) demonstrated that mobile money has significantly improved financial inclusion for women in Nairobi, reducing their reliance on informal finance and increasing access to formal financial channels, although structural gender inequalities remain unaddressed. On a global scale, Ozili (2020) reviewed evidence on financial inclusion, highlighting emerging themes such as optimal inclusion, systemic risks, and the impact of economic changes, while suggesting that factors like financial innovation, literacy, and regulatory frameworks require further research.

Finally, studies by Apiors & Suzuki (2023) and Iviane Ramos de Luna et al. (2019) examine mobile money education and its modest impact on usage, as well as the influence of economic growth, literacy, and gender inequality on financial inclusion in Asia and Africa. These findings suggest that improving literacy, addressing gender disparities, and promoting pay equality are crucial for enhancing financial inclusion and development in these regions.

While the existing research provides valuable insights into the role of mobile and electronic banking in financial inclusion, it often overlooks the specific enablers and demographic factors that influence the usage of these technologies, particularly among urban poor households. Many studies focus on

broad trends, security concerns, and privacy issues but fail to explore how enablers like performance expectancy, economic benefit, convenience, social influence, and technical conditions drive mobile banking and digital payment app usage among marginalized groups. Moreover, there is limited analysis of how demographic variables such as gender, age, income, and occupation affect adoption rates within these communities. Our present study addresses these gaps by examining the impact of these enablers and demographic factors on mobile banking usage and assessing the role of these apps in promoting financial inclusion among urban poor households. This approach aims to provide a more detailed understanding of the factors that contribute to or hinder financial inclusion in these vulnerable populations.

RESEARCH METHODOLOGY:

This research article investigates the impact of demographic variables and enablers such as performance expectancy, economic benefit, convenience, social influence, and technical conditions on the usage of mobile banking and digital payment apps by urban poor households, as well as their influence on financial inclusion. Convenience sampling was employed to select respondents due to its practicality and quick access to the target population.

Data was collected from a total of 51 respondents, through an online survey distributed via Google Forms, designed to capture information on respondents' usage of mobile banking and digital payment apps, perceptions of the enablers, and demographic details. The use of Google Forms facilitated efficient data collection from a diverse range of participants across various urban areas.

Data visualization was conducted using Microsoft Power BI, while secondary data was gathered from a variety of sources, including journals, books, research articles, papers, and online resources.

FINDINGS AND DISCUSSION:

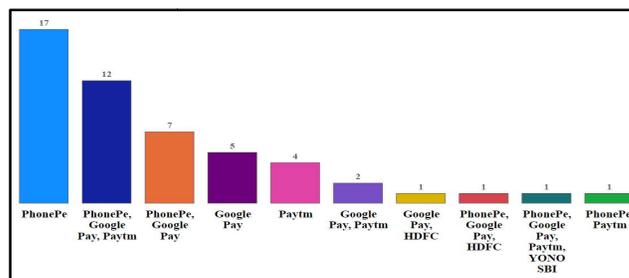


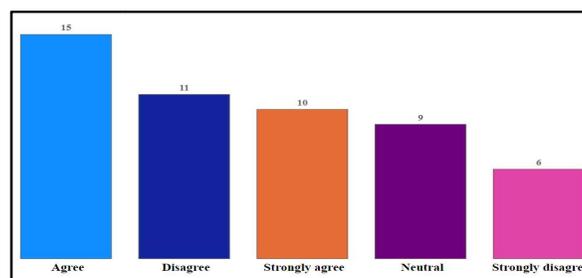
Figure 1- Distribution of Mobile Banking and Digital Payment App Preferences

Source: Authors

Depicts PhonePe is the most preferred app with 17 mentions, indicating its strong user base. Users often combine PhonePe with Google Pay and Paytm, reflecting a preference for diverse functionalities. Google Pay and Paytm have fewer mentions, while other combinations like Google Pay with HDFC or YONO SBI are rare. This highlights PhonePe's dominance and users' tendency to use multiple apps for digital payments.

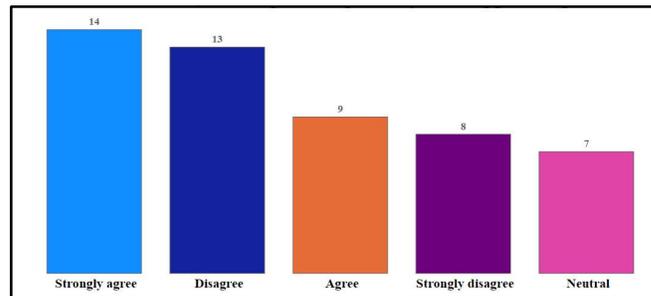
Figure 2-Frequency of Mobile Banking and Digital Payment App Usage by income Bracket

Source: Authors



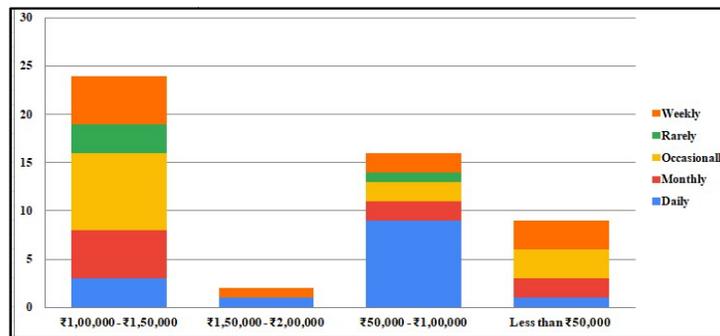
The chart shows that individuals with lower incomes (₹50,000 to ₹1,00,000) use mobile banking and digital payment apps more frequently, often daily or weekly. In contrast, those with higher incomes (₹1,00,000 to ₹1,50,000) use these apps less frequently, primarily on an occasional or monthly basis. This suggests that lower-income users rely more on these apps for financial management.

Figure 3- Agreement on Security of Mobile Banking and Digital Payment Transactions
Source: Authors



The bar graph reveals that the majority of respondents have a positive perception of mobile banking and digital payment apps' security, with 15 agreeing and 10 strongly agreeing. A smaller segment is neutral (9), while concerns are present among 11 who disagree and 6 who strongly disagree. This distribution highlights overall confidence in security but also indicates notable concerns and uncertainty among some users.

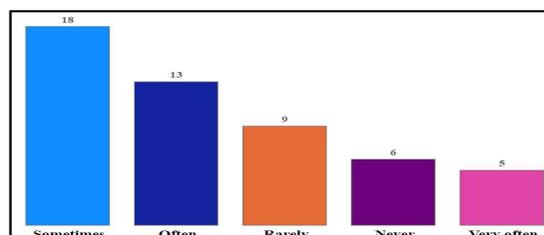
Figure 4-Convenience of Mobile Banking and Digital Payment Apps compared to Cash
Source: Authors



The data indicates that 23 respondents find mobile banking and digital payment apps more convenient than cash, with 14 strongly agreeing and 9 agreeing. However, 21 respondents are less convinced, with 13 disagreeing and 8 strongly disagreeing. Additionally, 7 respondents are neutral, reflecting uncertainty or mixed feelings. This distribution shows that while there is a significant number of users who perceive these digital methods as convenient, a substantial portion still prefers cash or has reservations about the convenience of digital payments.

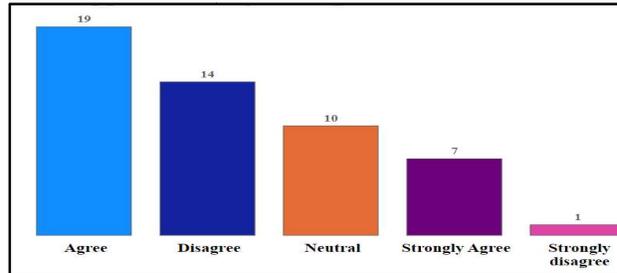
Figure 5-Frequency of Challenges Encountered with Mobile Banking and Digital Payment Apps

Source: Authors



The analysis reveals that most users face challenges with mobile banking and digital payment apps "Sometimes" (18), with a notable number encountering issue "Often" (13). Fewer respondents experience problems "Very Often" (5), while a small group reports having no challenges ("Never" 6) or facing them only "Rarely" (9). This distribution indicates that while a significant portion of users regularly encounter problems, there are also many who experience fewer issues or none at all.

Figure 6-Agreement Level on Learning about Mobile Banking and Digital Payment Apps from Friends and Family

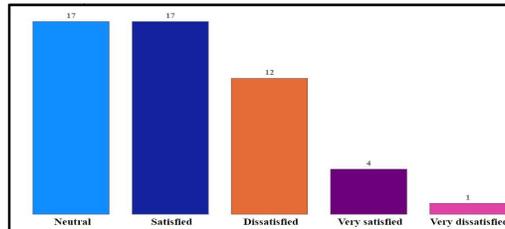


Source: Authors

Most respondents (26 strongly agree, 11 agree) learned about mobile banking and digital payment apps from friends and family, showing that personal recommendations are a major source of information. Fewer people disagree (7) or strongly disagree (3), and 4 are neutral, suggesting that personal networks significantly influence how users discover these apps.

Figure 7-Agreement Level on the impact of Mobile Banking and Digital Payment Apps availability on regular use

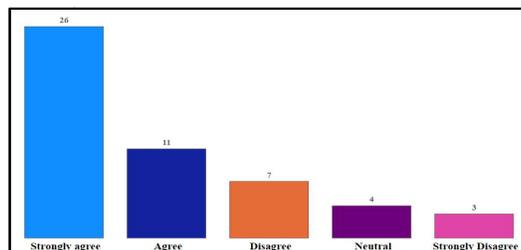
Source: Authors



Most respondents (26) feel that the availability of mobile banking and digital payment apps influences their decision to use them regularly, with 7 strongly agreeing and 19 agreeing. A smaller number are neutral (10), and 15 respondents either disagree (14) or strongly disagree (1), indicating that while availability is an important factor for many, there are varying opinions on its impact.

Figure 8- Satisfaction levels with Mobile Banking and Digital Payment Apps

Source: Authors



The data indicates that 17 respondents are satisfied and 4 are very satisfied with mobile banking and digital payment apps. However, there is a considerable number of respondents (17) who are neutral, suggesting mixed feelings about the apps. Additionally, 13 respondents are dissatisfied, including 12 who are somewhat dissatisfied and 1 who is very dissatisfied. While a majority of users express satisfaction, a significant portion report neutral or negative experiences.

SUGGESTIONS AND CONCLUSIONS :

In the context of mobile banking and digital payment apps, the research highlights several important findings from urban poor households. PhonePe emerges as the most popular app, frequently used alongside Google Pay and Paytm, reflecting its strong market presence and the tendency to use multiple apps for financial transactions. Users in this demographic rely heavily on these apps, utilizing them more regularly as a primary financial tool. Despite overall confidence in the apps' security, significant concerns persist, indicating the need for improved security measures and communication. Challenges with app functionality are common, suggesting a focus on enhancing app reliability and customer support is necessary. Although many users find digital payments convenient, there is a substantial preference for cash among some respondents, pointing to the need for better education on the benefits of digital transactions. Personal recommendations are a key factor in app adoption, indicating that using referral programs could further boost usage. Overall, while digital payments are widely adopted among urban poor households, addressing security concerns, improving app functionality, and increasing user education will be critical for enhancing overall satisfaction and continued usage.

SOCIETAL IMPLICATIONS :

This research helps in promoting financial inclusion among urban poor households by exploring how demographic variables and enablers like performance expectations, economic benefits, convenience, social influences, and technical conditions affect the use of mobile banking and digital payment apps. By providing insights into these factors, the study can help shape targeted financial literacy programs and enhance digital infrastructure, making financial services more accessible to those in need. This approach not only helps individuals by giving them better financial tools but also supports policies that promote fairness and economic stability. By addressing these issues, the research seeks to reduce dependence on informal financial systems, bridge the digital gap, and build a more inclusive financial environment that benefits everyone.

FUTURE RESEARCH AND SCOPE :

This research paves the way for numerous future studies, particularly in deepening our understanding of how mobile banking and digital payment apps influence financial inclusion among urban poor households. One direction for future research could be to conduct studies over time to see how mobile banking adoption evolves and what effects it has on financial inclusion in the long run. This would help us understand whether current efforts are truly making a lasting difference. Further research could be made to explore how cultural and regional differences affect the use of mobile banking technologies. By understanding these influences, strategies can be better tailored to meet the needs of specific communities or regions.

Finally, studying the impact of new technologies, like block chain and fintech innovations, on financial inclusion could offer fresh ideas and solutions to help urban poor households gain better access to formal financial services.

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