International Journal of

Technology and Systems

(IJTS)

Evaluating User Acceptance of Mobile Payment Systems in Uganda

Martin Ngobi

Martin Ngobi

Mbarara University of Science and Technology

Abstract

Purpose: This research evaluates user acceptance of mobile payment systems.

Methodology: This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

Findings: Combining machine learning with DW systems provides significant advantages in different fields. This synergy boosts analytical aptitudes, allowing the organization to go a notch higher than descriptive analytics in predictive and prescriptive analytics. However, such a decision is not simple as it has implementation matters such as data quality problems, scalability, and real-time processing problems. Integration best practices include in-database machine learning processing, a feature store, and proper MLOps practices. Real-life examples from the healthcare industry, banking and financial services, retail, and manufacturing industries show that this integration brings operational enhancements for the business and positive effects on customers and overall organizational performance.

Recommendations: Mobile payment providers should prioritize user-centric design principles, focusing on simplicity, usability, and intuitive interfaces. Policymakers should develop regulatory frameworks that establish clear standards for mobile payment systems, focusing on data protection, privacy, and security.

Keywords: User Acceptance, Mobile Payment Systems

INTRODUCTION

User acceptance of mobile payment systems, often measured through user adoption rates and satisfaction surveys, is crucial for understanding the effectiveness and impact of these technologies. In developed economies like the USA and Japan, mobile payment adoption has been on a steady rise. For instance, a study indicated that in the USA, mobile payment usage grew by 29% in 2020, with approximately 45% of consumers using mobile wallets regularly, showcasing a significant trend towards digital transactions (Gartner, 2021). Similarly, in Japan, the adoption of mobile payment solutions surged, with over 40% of consumers reporting regular use of such services by 2022, attributed to advancements in technology and increased consumer confidence in security measures (JCB, 2022). User satisfaction surveys in these regions often highlight ease of use and security as critical factors influencing positive experiences with mobile payment systems, reinforcing the necessity of addressing these aspects to maintain and enhance user acceptance.

In the UK, mobile payment usage has surged, with the number of users increasing by 25% from 2019 to 2021, reaching approximately 45% of the adult population regularly using mobile wallets (UK Finance, 2021). Surveys indicate that factors such as perceived security and convenience significantly influence user satisfaction, with many users expressing that mobile payments save time and enhance their shopping experience. However, concerns about fraud and data privacy remain prevalent, highlighting the need for providers to strengthen security features and communicate these effectively to users (BIS, 2022). In Australia, mobile payment adoption has also seen a remarkable increase, with 62% of Australians reportedly using mobile payment solutions by 2021, driven by the rise of contactless payments during the COVID-19 pandemic (Australian Bureau of Statistics, 2021). Overall, addressing user concerns and enhancing satisfaction through improved security and user education is crucial for further adoption in these regions.

In Canada, a survey by the Canadian Payments Association revealed that mobile payment usage increased by 35% from 2020 to 2022, with approximately 48% of Canadians now regularly using mobile wallets for transactions (Canadian Payments Association, 2022). User satisfaction surveys indicate that convenience and enhanced transaction speed are critical factors driving acceptance, as consumers appreciate the ability to make quick and easy payments. However, concerns regarding security and privacy persist, especially among older demographics, highlighting the need for providers to enhance security features and communicate these effectively (CIBC, 2022). In Germany, mobile payment adoption has also seen significant growth, with reports showing that 45% of Germans used mobile payment solutions in 2022, driven by increased contactless payment options during the pandemic (Bundesbank, 2022). Despite the positive trends, user acceptance is still hampered by apprehensions about data security, suggesting that addressing these concerns is essential for further expansion.

France and Sweden, where digital payment solutions are rapidly gaining traction. In France, a survey conducted by the French Banking Federation indicated that approximately 60% of the population used mobile payment solutions in 2022, reflecting a significant increase in adoption over the previous years (FFB, 2022). Users reported that the convenience of contactless payments and enhanced security features significantly influenced their acceptance. However, concerns about data privacy and the security of personal information remain prevalent, suggesting that banks and service providers need to reinforce their security measures and transparency in data handling

practices (CNC, 2022). Similarly, in Sweden, the adoption of mobile payment systems has reached 85% among the adult population, primarily driven by the popularity of services like Swish, which allows instant money transfers between users (Swedish Financial Supervisory Authority, 2022). Despite the high adoption rates, some user's express skepticism regarding the safety of these platforms, highlighting the importance of ongoing user education about security features to enhance trust and acceptance.

In developing economies, the acceptance of mobile payment systems presents both opportunities and challenges, influenced by various factors including infrastructure, trust, and education. For instance, in India, the use of mobile payments has increased significantly, with a reported 400% growth in digital payment transactions from 2019 to 2021, indicating a robust adoption rate among consumers (National Payments Corporation of India, 2022). However, user satisfaction surveys often reveal concerns related to security and usability that may hinder further adoption, with a substantial portion of users expressing skepticism about the safety of their financial data (Kumar & Sharma, 2022). Moreover, educational initiatives aimed at informing users about the benefits and security of mobile payment systems have been found to positively impact user acceptance, suggesting that awareness plays a crucial role. As developing economies continue to expand their digital payment landscapes, addressing user concerns and enhancing satisfaction will be vital for promoting widespread adoption.

For instance, in Brazil, the adoption of mobile payments has accelerated, with a 200% increase in users between 2018 and 2022, reaching nearly 30% of the adult population (Ebanx, 2022). User satisfaction surveys reveal that while many Brazilians appreciate the convenience and accessibility of mobile payment solutions, security concerns persist, particularly among older users who may be less familiar with digital technologies. Addressing these concerns through targeted educational campaigns is essential to improve user acceptance and satisfaction (Souza & Santos, 2022). In South Africa, the adoption rate of mobile payments has also increased, with reports indicating that over 40% of South African adults used mobile payment platforms by 2021, highlighting the growing trend (Statista, 2022). Nevertheless, challenges such as limited internet access in rural areas and concerns over transaction fees continue to impede broader acceptance. Efforts to improve infrastructure and enhance user trust in mobile payment solutions are vital for advancing user acceptance in these markets.

In Mexico, mobile payment adoption has surged, with over 35% of the adult population reportedly using mobile wallets by 2022, reflecting a growing trend toward digital transactions (Banxico, 2022). User satisfaction surveys indicate that perceived ease of use and the ability to make transactions without traditional banking infrastructure are significant motivators for adoption. However, users have expressed concerns about transaction security and the risk of fraud, which can impede further acceptance (Duarte, 2022). Similarly, in the Philippines, mobile payment solutions like GCash and PayMaya have gained traction, with a reported 27% increase in usage from 2020 to 2021 (Bangko Sentral ng Pilipinas, 2022). Users frequently cite the convenience of mobile payments and the ability to send money instantly as key benefits, but security concerns remain a barrier, particularly among less tech-savvy individuals. To enhance user acceptance in these markets, targeted educational campaigns addressing security concerns and demonstrating the benefits of mobile payment systems are essential.

In Indonesia, the usage of mobile payments has grown significantly, with a reported increase of 300% in transactions from 2019 to 2022, indicating a substantial shift towards digital payments (Bank Indonesia, 2022). User satisfaction surveys indicate that convenience and the ability to conduct transactions without physical cash are primary motivators for acceptance. However, concerns about transaction security and fraud still hinder broader adoption, particularly among older users who may be less comfortable with technology (Rahmawati , 2023). In Thailand, mobile payment acceptance is also on the rise, with around 40% of the population using mobile wallets in 2022, largely attributed to government initiatives promoting digital payments (Bank of Thailand, 2022). Despite the encouraging growth, users frequently cite issues related to transaction fees and the complexity of using some mobile payment platforms as barriers to wider acceptance. Addressing these concerns through user-friendly designs and transparent fee structures is crucial for enhancing user acceptance in these regions.

In Sub-Saharan economies, user acceptance of mobile payment systems is still in its formative stages but is showing promising growth due to increased smartphone penetration and internet access. For instance, in Kenya, the adoption of mobile payment services like M-Pesa has reached over 75% of the adult population, indicating a remarkable acceptance rate within the region (World Bank, 2022). User satisfaction surveys reveal that many Kenyans appreciate the convenience and accessibility of mobile payments, but concerns about security remain prevalent, as users fear fraud and unauthorized transactions (Kivuva, 2022). Similar trends can be observed in Nigeria, where mobile payment adoption has increased significantly, yet users report dissatisfaction related to transaction speed and system reliability. Addressing these issues through improved security measures and better service delivery is essential for enhancing user acceptance of mobile payment systems in Sub-Saharan countries.

In Tanzania, mobile payment adoption has surged, with over 50% of adults using mobile wallets as of 2022, fueled by the increasing penetration of mobile phones (TCRA, 2022). User satisfaction surveys highlight that while many users value the convenience and lower transaction costs associated with mobile payments, concerns about security and the reliability of network connections remain significant barriers. In Nigeria, mobile payment solutions like Paga and OPay have gained traction, with user adoption rates increasing by 30% from 2020 to 2022 (Statista, 2022). However, dissatisfaction related to service reliability and transaction speed has been reported, underscoring the need for improvements in infrastructure and service delivery. Overall, addressing user concerns through education, infrastructure investment, and enhanced security measures will be essential for fostering greater acceptance of mobile payment systems in Sub-Saharan countries.

In Uganda, mobile money adoption has reached approximately 45% of the adult population, with users appreciating the convenience and accessibility of mobile payments (Bank of Uganda, 2022). User satisfaction surveys reveal that while many users find mobile payments beneficial, concerns about security and the reliability of mobile networks pose significant barriers to wider acceptance. Similarly, in Rwanda, mobile payment usage increased to 60% by 2022, as mobile financial services have become essential for daily transactions (National Bank of Rwanda, 2022). Despite this growth, users have expressed dissatisfaction with service fees and transaction limits, indicating that cost factors play a critical role in acceptance. Addressing these issues through improved infrastructure, competitive pricing, and robust security measures is crucial for fostering greater user acceptance of mobile payment systems in Sub-Saharan countries.

In Mozambique, mobile payment adoption has seen a sharp rise, with approximately 50% of the adult population using mobile money services by 2022, primarily driven by the need for accessible financial services in rural areas (Bank of Mozambique, 2022). User satisfaction surveys reveal that the convenience of mobile payments and the ability to perform transactions without a bank account are significant advantages. Nevertheless, users often express concerns regarding network reliability and security, which can deter further adoption (Mabote, 2022). In Ghana, mobile payment systems have also gained traction, with over 35% of adults using such services as of 2021, largely due to the increasing penetration of mobile technology (Bank of Ghana, 2022). User feedback indicates that while many appreciate the convenience, issues related to transaction delays and security concerns continue to pose challenges. To enhance user acceptance, it is imperative for stakeholders to improve infrastructure, security measures, and user education regarding mobile payment systems in these economies.

Mobile payment systems are increasingly being adopted due to their convenience and efficiency, but their success largely hinges on specific features that enhance user acceptance. Ease of use is a critical feature, as users are more likely to adopt mobile payment systems that are intuitive and user-friendly. Studies show that when users perceive a mobile payment system as easy to navigate, their likelihood of adoption increases, leading to higher user satisfaction (Dahlberg, 2015). Additionally, security is paramount; users must feel confident that their financial and personal information is protected. Research indicates that perceived security significantly influences user acceptance, with higher security measures correlating with increased adoption rates and satisfaction (Zhao & El-Guindy, 2020). Finally, transaction speed plays a vital role; users expect quick and seamless transactions, and any delays can deter them from using mobile payment systems.

The features of mobile payment systems directly impact user acceptance, as measured by user adoption rates and satisfaction surveys. When users experience quick transaction speeds, they are more likely to perceive the system positively, leading to higher adoption rates (Kumar & Sharma, 2022). Furthermore, user satisfaction surveys frequently highlight ease of use and security as pivotal factors affecting overall satisfaction with mobile payment solutions. Research consistently demonstrates that mobile payment systems that effectively integrate these features are more successful in attracting and retaining users (Alalwan, 2019). Therefore, addressing ease of use, security, and transaction speed not only enhances user satisfaction but also promotes broader acceptance of mobile payment technologies in various markets.

Problem Statement

The rapid proliferation of mobile payment systems has transformed the financial landscape, yet user acceptance remains a critical challenge that impedes the widespread adoption of these technologies. Despite the convenience and efficiency offered by mobile payments, numerous studies indicate that concerns related to security, ease of use, and trust significantly influence users' willingness to adopt these systems (Zhao & El-Guindy, 2020). In many regions, particularly in developing economies, there is a lack of understanding regarding the specific factors that affect user acceptance, leading to low adoption rates despite the potential benefits (Osei & Ransome, 2021). Additionally, demographic variations, such as age and education level, further complicate the acceptance landscape, as different user groups exhibit distinct preferences and concerns (Kumar & Sharma, 2022). Given these challenges, there is an urgent need for comprehensive

research that evaluates the determinants of user acceptance of mobile payment systems, taking into account the unique contextual and cultural factors influencing user behavior. This research aims to provide valuable insights that can inform the development of targeted strategies to enhance user acceptance and ultimately drive the adoption of mobile payment technologies in diverse populations.

Theoretical Framework

Technology Acceptance Model (TAM)

Developed by Fred Davis in 1989, the Technology Acceptance Model posits that perceived ease of use and perceived usefulness are critical factors influencing users' decisions to adopt new technologies. TAM is particularly relevant to mobile payment systems, as users must feel that these systems are not only easy to navigate but also beneficial for their financial transactions. By applying TAM, researchers can identify the specific aspects of mobile payment systems that enhance or hinder user acceptance. This theoretical framework provides a foundational understanding of how perceptions shape user behavior in adopting mobile payment technologies.

Unified Theory of Acceptance and Use of Technology (UTAUT)

Proposed by Venkatesh in 2003, the Unified Theory of Acceptance and Use of Technology integrates multiple user acceptance theories, emphasizing performance expectancy, effort expectancy, social influence, and facilitating conditions as key determinants of technology acceptance. This theory is particularly pertinent for evaluating mobile payment systems, where user experience is influenced by both individual perceptions and external social factors. UTAUT provides a comprehensive framework that can guide researchers in understanding the multifaceted influences on user acceptance in diverse demographic groups.

Diffusion of Innovations (DOI)

Proposed by Everett Rogers in 1962, the Diffusion of Innovations theory explains how, why, and at what rate new technologies spread within and between societies. This theory is relevant to mobile payment systems as it provides insights into how social networks and communication channels affect user adoption. Understanding the diffusion process can help identify the barriers and facilitators of mobile payment acceptance in various cultural contexts. Additionally, it highlights the importance of early adopters and opinion leaders in promoting the use of mobile payment solutions among potential users.

Empirical Review

Zhao & El-Guindy (2020) evaluated factors influencing user acceptance of mobile payment systems among university students in China, focusing on their unique needs and behaviors. The researchers employed a survey methodology, collecting data from 400 students using structured questionnaires distributed via online platforms. The study sought to understand how various factors, including perceived ease of use, perceived security, and social influence, impacted the students' willingness to adopt mobile payment systems. Findings indicated that both perceived ease of use and perceived security significantly affected user acceptance, with security concerns being a critical barrier for many participants. Additionally, social influence played a role, as students were more likely to adopt mobile payments if their peers were using them. The authors emphasized that educational initiatives aimed at informing users about the security features of mobile payment systems could alleviate concerns and enhance acceptance. Recommendations

included designing targeted marketing strategies that highlight the ease of use and security of mobile payment solutions. This study contributes to the understanding of user behavior in mobile payments and underscores the need for tailored approaches in targeting younger demographics. By focusing on the unique characteristics of university students, the research offers insights into how to better engage this audience. Overall, the study highlights the importance of addressing user concerns to foster wider adoption of mobile payment systems among students.

Osei & Ransome (2021) focused on the determinants of mobile payment adoption in Ghana, aiming to identify the factors that influence user acceptance in a developing economy. Utilizing a mixed-methods approach, the authors combined surveys with qualitative interviews to gather comprehensive data from 250 users. The study revealed that trust, perceived usefulness, and social influence significantly impacted user acceptance of mobile payment systems. Participants expressed concerns regarding the security of transactions, highlighting the importance of trust in financial technology. The qualitative interviews further emphasized the role of social influence, as many users adopted mobile payments based on recommendations from friends and family. The authors recommended targeted marketing campaigns that leverage social networks to enhance user acceptance and build trust in mobile payment solutions. Additionally, they suggested that mobile payment providers engage in community outreach to address user concerns and educate potential customers about the benefits of using these systems. This research provides valuable insights into the factors affecting mobile payment adoption in Ghana, contributing to a better understanding of user behavior in developing economies. By focusing on local cultural and social dynamics, the study offers practical recommendations for increasing the acceptance of mobile payments in similar contexts.

Alalwan (2019) assessed user acceptance of mobile payment services in Jordan, recognizing the growing importance of digital payment solutions in the region. A quantitative research design was employed, with data collected through a structured survey of 500 respondents across various demographics. The findings indicated that perceived value, perceived ease of use, and trust significantly influenced acceptance levels. Users expressed a strong preference for mobile payment systems that offered convenience and security, highlighting the need for robust security features to enhance trust. The study also found that social influence and awareness of mobile payment technologies played crucial roles in shaping user perceptions. Based on these insights, the authors recommended that service providers focus on enhancing user experience and security to drive adoption. They also emphasized the importance of conducting awareness campaigns to educate users about the benefits and functionalities of mobile payment systems. This research contributes to the understanding of mobile payment acceptance in Jordan and provides actionable recommendations for service providers to enhance user engagement. By identifying the key factors influencing acceptance, the study paves the way for future research on mobile payment systems in similar cultural contexts.

Liu (2021) evaluated the impact of perceived security on user acceptance of mobile payment systems in China, given the rapid growth of digital payments in the country. Utilizing a structural equation modeling approach, the researchers gathered data from 600 users through an online survey. The results indicated a strong positive correlation between perceived security and user acceptance, with participants expressing significant concerns regarding the safety of their financial information. The study highlighted that users are more likely to adopt mobile payment solutions if they feel confident in the security measures implemented by service providers. Additionally, the

findings revealed that perceived ease of use and the influence of social networks also played important roles in shaping acceptance levels. The authors recommended that mobile payment platforms enhance their security measures and clearly communicate these features to potential users to build trust. Furthermore, the research suggests that integrating advanced security technologies, such as biometric authentication, could further enhance user confidence. This study contributes to the understanding of how security perceptions affect mobile payment acceptance in China and provides practical recommendations for service providers.

Kumar& Sharma (2022) investigated the role of demographic factors in influencing mobile payment acceptance in India, aiming to identify variations in adoption rates across different population segments. A quantitative survey methodology was employed with 300 participants from diverse backgrounds. The findings revealed that age and education level significantly impacted acceptance rates, with younger and more educated users showing a higher propensity to adopt mobile payments. The study found that younger users were more comfortable with technology and more likely to trust mobile payment systems, whereas older users expressed concerns about security and usability. Based on these insights, the authors recommended targeted educational programs to increase awareness among older users, addressing their specific concerns about security and usability. The study emphasizes the importance of tailoring marketing strategies to different demographic groups to maximize user acceptance. This research contributes to the understanding of how demographic factors influence mobile payment adoption in India and provides actionable insights for service providers looking to engage diverse user segments. By focusing on demographic differences, stakeholders can develop more effective strategies to promote mobile payment adoption across various age groups and educational backgrounds.

Raza (2020) examined the factors affecting user acceptance of mobile payment systems in Pakistan, aiming to understand the unique challenges and barriers to adoption in the region. A survey was conducted among 400 users, employing multiple regression analysis to evaluate the data. The results highlighted that perceived ease of use and subjective norms were significant predictors of user acceptance, with users expressing a preference for systems that are easy to navigate and widely endorsed by their peers. The study found that security concerns were prevalent among users, emphasizing the need for mobile payment providers to address these issues proactively. Based on their findings, the authors recommended that service providers simplify the user interface to improve adoption rates, focusing on enhancing the overall user experience. Furthermore, the study suggests implementing robust marketing strategies that highlight security features and user testimonials to build trust. This research contributes to the understanding of user behavior regarding mobile payment adoption in Pakistan and underscores the importance of addressing security concerns. By focusing on ease of use and user trust, stakeholders can foster greater acceptance of mobile payment systems in the region.

Fischer & Riedl (2019) explored the influence of user trust on the acceptance of mobile payment solutions in Germany, addressing the critical issue of data security in digital payments. A qualitative approach involving focus groups was utilized to gather insights from 50 participants regarding their perceptions of mobile payment security. The findings indicated that trust in the service provider significantly affected acceptance, as users expressed concerns over data security and privacy. Participants highlighted the importance of transparent data handling policies and robust security measures in building trust. The study concluded that adopting blockchain technology or similar secure systems could enhance user confidence in mobile payment solutions.

The authors recommended that providers implement transparent policies regarding data usage and offer guarantees to protect user information. Additionally, creating user-friendly interfaces that clearly communicate security features can help alleviate concerns. This research provides valuable insights into how trust influences user acceptance of mobile payments and highlights the need for service providers to prioritize user security. By focusing on trust-building measures, stakeholders can enhance the adoption of mobile payment systems in Germany and similar markets.

METHODOLOGY

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low-cost advantage as compared to field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

FINDINGS

The results were analyzed into various research gap categories that is conceptual, contextual and methodological gaps

Conceptual Gaps: Osei & Ransome (2021) highlighted critical factors influencing user acceptance of mobile payment systems, such as perceived ease of use, perceived security, and social influence. However, there are conceptual gaps regarding the specific mechanisms through which these factors interact and influence each other in the context of mobile payments. For instance, while studies acknowledge the importance of perceived security, they often fail to investigate how this perception interacts with ease of use or social influence to shape overall acceptance. Additionally, the literature lacks comprehensive theoretical models that integrate emerging trends in mobile payment technologies, such as cryptocurrency and blockchain integration, which could provide deeper insights into user acceptance dynamics. Furthermore, there is limited exploration of the potential drawbacks or negative perceptions related to mobile payments, such as privacy concerns and the fear of technological obsolescence. By addressing these gaps, future research can contribute to a more nuanced understanding of user behavior in mobile payment adoption.

Contextual Gaps: Raza (2020) focused on specific populations, such as university students in China or users in Ghana and Pakistan, without thoroughly examining the broader social, economic, and cultural factors that influence acceptance. For example, the challenges identified in the Ghanaian context may differ significantly from those in developed countries or other developing economies, making it essential to consider contextual variables when evaluating user acceptance. Additionally, the existing research often overlooks the role of local regulations and market conditions that may affect user perceptions and behaviors toward mobile payments. While studies emphasize the importance of trust and social influence, they may not adequately account for how local cultural attitudes toward technology and financial transactions impact acceptance levels. This lack of contextual diversity presents an opportunity for future research to explore mobile payment acceptance in various settings, including rural areas, and among different demographic groups.

Geographical Gaps: Fischer & Riedl (2019) concentrated in specific regions, such as Asia and Africa, leaving a gap in understanding how mobile payment acceptance varies across different countries and cultures. While the studies conducted in China, Ghana, and Jordan provide valuable

insights, there is a notable absence of research focusing on mobile payment acceptance in Europe, North America, and other emerging markets. The unique challenges and opportunities present in these regions, including varying levels of technological infrastructure, regulatory environments, and user demographics, remain underexplored. Furthermore, the studies primarily focus on urban populations, neglecting the potential differences in acceptance among rural users who may face distinct challenges regarding technology adoption. Addressing these geographical gaps will enhance the overall understanding of user acceptance of mobile payment systems and inform strategies that are culturally and contextually relevant across diverse markets.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Evaluating user acceptance of mobile payment systems is crucial for the successful implementation and adoption of these technologies in today's increasingly digital economy. As consumer reliance on mobile payments grows, understanding the factors that influence acceptance such as perceived ease of use, security, trust, and cultural context—becomes essential. Research indicates that addressing user concerns and enhancing perceived security can significantly impact user willingness to adopt mobile payment solutions. Furthermore, practical strategies, including user-centric design and educational campaigns, can foster greater confidence and encourage broader adoption among diverse user groups.

The role of policymakers is equally important; establishing clear regulatory frameworks and promoting financial inclusivity can create a supportive environment for mobile payment systems to thrive. As this sector continues to evolve, ongoing research is necessary to adapt to changing user behaviors and technological advancements. By prioritizing user acceptance, stakeholders can not only enhance the effectiveness of mobile payment systems but also contribute to the overall advancement of digital financial services, ultimately benefiting consumers and businesses alike.

Recommendations

Theory

Researchers should refine existing user acceptance models (such as the Technology Acceptance Model and Unified Theory of Acceptance and Use of Technology) to incorporate specific factors influencing mobile payment systems, such as perceived security, ease of use, and cultural influences. This will lead to a more robust understanding of the determinants of user acceptance in diverse contexts. Future studies should investigate the behavioral aspects of users, such as trust, risk perception, and habit formation, in relation to mobile payment systems. This exploration will provide deeper insights into the psychological factors affecting acceptance and usage, enriching theoretical frameworks in the field. Conduct cross-cultural research to identify how socio-economic, cultural, and demographic factors influence user acceptance of mobile payment systems in different regions. This can enhance the theoretical understanding of mobile payment adoption in a global context.

Practice

Mobile payment providers should prioritize user-centric design principles, focusing on simplicity, usability, and intuitive interfaces. Conducting user testing and gathering feedback can help ensure that the systems meet the needs and preferences of target users. Implement comprehensive educational campaigns to inform users about the benefits, security measures, and functionalities

of mobile payment systems. Addressing common concerns and misconceptions can enhance user confidence and acceptance. Mobile payment systems should integrate robust security features, such as biometric authentication and encryption, and clearly communicate these features to users. Enhancing perceived security will increase trust and acceptance among users hesitant to adopt new payment methods.

Policy

Policymakers should develop regulatory frameworks that establish clear standards for mobile payment systems, focusing on data protection, privacy, and security. Such regulations will help ensure user safety and build trust in mobile payment technologies. Encourage policies that promote financial inclusivity by supporting the development of mobile payment systems that cater to underbanked and rural populations. This can enhance user acceptance and broaden the reach of mobile payment solutions. Promote collaboration between financial institutions, technology providers, and regulatory bodies to create a conducive environment for mobile payment system innovation. Such partnerships can facilitate knowledge sharing, improve user acceptance, and accelerate the adoption of secure mobile payment solutions.

REFERENCE

Alalwan (2019). User acceptance of mobile payment services in Jordan: An empirical analysis. Telematics and Informatics, 38, 101-116. https://doi.org/10.1016/j.tele.2018.08.007

Australian Bureau of Statistics. (2021). Characteristics of Australian Business: Mobile Payments. Retrieved from ABS

Bangko Sentral ng Pilipinas. (2022). Financial Technology Innovations in the Philippines. Retrieved from BSP

Bank Indonesia. (2022). Digital Payment Trends in Indonesia. Retrieved from Bank Indonesia

Bank of Ghana. (2022). Payment Systems Report. Retrieved from Bank of Ghana

Bank of Mozambique. (2022). Mobile Money in Mozambique: Annual Report. Retrieved from Bank of Mozambique

Bank of Uganda. (2022). Financial Inclusion Report. Retrieved from Bank of Uganda

Banxico. (2022). Mobile Payment Systems in Mexico: Trends and Insights. Retrieved from Banxico

BIS. (2022). Understanding Consumer Attitudes Toward Mobile Payments in the UK. Bank for International Settlements. Retrieved from BIS

Bundesbank. (2022). Payment Methods in Germany: Trends and Insights. Retrieved from Bundesbank

Canadian Payments Association. (2022). Canadian Payment Methods: Trends and Insights. Retrieved from CPA

CIBC. (2022). Mobile Payment Trends in Canada: User Satisfaction Report. Retrieved from CIBC

CNC. (2022). User Trust and Security in Mobile Payments: A French Perspective. Retrieved from CNC

Communications Authority of Kenya (CAK). (2021). Annual report on cybersecurity incidents in Kenya. Retrieved from CAK Website

Dahlberg, T., Guo, J., & Ondrus, J. (2015). A critical review of mobile payment research. Journal of Internet Banking and Commerce, 20(2), 1-23.

Duarte, P., Mena, P., & Gutiérrez, J. (2022). Understanding Mobile Payment Adoption in Mexico: The Role of Security. Journal of Business Research, 145, 634-645. https://doi.org/10.1016/j.jbusres.2022.02.045

Ebanx. (2022). Mobile Payments in Brazil: Trends and Insights. Retrieved from Ebanx

Fischer, J., & Riedl, R. (2019). Trust and user acceptance of mobile payment solutions in Germany. Journal of Retailing and Consumer Services, 51, 145-154. https://doi.org/10.1016/j.jretconser.2019.05.016

Gartner. (2021). The future of mobile payments: Trends and insights. Gartner Research. Retrieved from Gartner

JCB. (2022). 2022 Mobile Payment Trends in Japan. Retrieved from JCB

Kivuva, J. (2022). User perceptions of mobile payment security: A Kenyan perspective. Journal of Information Security, 13(1), 10-25. https://doi.org/10.4236/jis.2022.131002

Kumar, A., & Sharma, R. (2022). Demographic factors influencing mobile payment acceptance in India. International Journal of Mobile Communications, 20(1), 85-104. https://doi.org/10.1504/IJMC.2022.113082

Liu (2021). The impact of perceived security on user acceptance of mobile payment systems in China. Journal of Business Research, 122, 573-583. https://doi.org/10.1016/j.jbusres.2020.08.006

Mabote, A. (2022). User Perceptions of Mobile Payment Systems in Mozambique. Journal of Financial Technology, 7(1), 32-44. https://doi.org/10.1016/j.jft.2022.04.002

National Bank of Rwanda. (2022). Mobile Payment Systems in Rwanda: Annual Report. Retrieved from NBR

National Commission on Informatics and Liberty (CNIL). (2021). Annual report on data breaches in France. Retrieved from CNIL Website

National Payments Corporation of India. (2022). Digital Payment Statistics. Retrieved from NPCI

Office of the Australian Information Commissioner (OAIC). (2021). Notifiable data breaches report: July–December 2021. Retrieved from OAIC Website

Osei, K. A., & Ransome, E. (2021). Determinants of mobile payment adoption in Ghana: A mixed-methods approach. International Journal of Information Management, 57, 102295. https://doi.org/10.1016/j.ijinfomgt.2021.102295

Rahmawati, A., Dinar, A., & Mardiana, R. (2023). Factors Influencing Mobile Payment Acceptance in Indonesia. International Journal of Information Management, 63, 102467. https://doi.org/10.1016/j.ijinfomgt.2022.102467

Raza (2020). Factors affecting user acceptance of mobile payment systems in Pakistan: An empirical investigation. Computers in Human Behavior, 113, 106514. https://doi.org/10.1016/j.chb.2020.106514

Souza, R. C., & Santos, M. F. (2022). User Perceptions of Mobile Payments in Brazil: A Qualitative Study. Journal of Financial Technology, 7(1), 45-60. https://doi.org/10.1016/j.jft.2022.01.003

Statista. (2022). Mobile Payment Usage in South Africa. Retrieved from Statista

Swedish Financial Supervisory Authority. (2022). Payment Trends in Sweden 2022. Retrieved from Swedish Financial Supervisory Authority

Tanzania Communications Regulatory Authority (TCRA). (2021). Cybersecurity report 2021. Retrieved from TCRA Website

TCRA. (2022). Mobile Payment Statistics in Tanzania. Tanzania Communications Regulatory Authority. Retrieved from TCRA

Venkatesh, V., & Bala, H. (2019). Technology acceptance model 3 and a research agenda on interventions. Decision Sciences, 50(2), 1-22. https://doi.org/10.1111/deci.12337

World Bank. (2022). Financial Inclusion and Mobile Payments in Kenya. Retrieved from World Bank

Zhao, H., & El-Guindy, A. (2020). Evaluating user acceptance of mobile payment solutions among university students. Journal of Cybersecurity and Privacy, 1(1), 113-129. https://doi.org/10.3390/jcp1010008