Journal Homepage: https://pollsterpub.org/
Pollster Journal of Academic Research
Available at: https://researchrise.org/pjar
Research Paper

Sustaining Digital Payment Adoption: The Role of Performance Expectancy in Shaping Continuance Intentions for Mobile Wallets

Anum Mushtaq[a]*
[a] Department of Islamic and Conventional Banking (DICB), Institute of Business, Management and Administrative Sciences (IBMAS), the Islamia University of Bahawalpur (IUB), Bahawalpur, Pakistan. Email: anummushtaq0668@gmail.com
*Correspondence: anummushtaq0668@gmail.com

Received: 29 January 2024 **Revised:** 13 April 2024 **Accepted:** 18 April 2024 **Published:** 22 April 2024

Keywords
Mobile Wallets
Satisfaction
Perceived Performance Expectancy
Continuance Intention

Abstract
The low adoption of mobile wallets in Pakistan presents a significant issue, limiting financial inclusion and digital transformation in the country. Despite the rapid growth of digital infrastructure and smartphone penetration, only a small percentage of Pakistani population actively uses mobile wallets. To address this problem, the current study considered the role of perceived performance expectancy in continuance intention of people towards mobile wallets. Additionally, this study examined the role of confirmation and satisfaction between perceived performance expectancy and continuance intention. A survey was carried out for data collection with the help of a survey questionnaire. The research unfolds within the geographical context of Pakistan, employing a robust methodology involving data collection from a cohort of 351 adults through a cross-sectional questionnaire survey. Results of the study highlighted important contribution of perceived performance expectancy in continuous intention. Additionally, a significant role of confirmation and satisfaction was found between perceived performance expectancy and continuance intention.

Introduction

A cashless society is marked by the absence of the actual banknotes and coins rather than the total removal of currency in order to preserve financial system (Bátiz-Lazo, Haigh, & Stearns, 2014; Bhuiyan, Akter, & Islam, 2024). The potential macroeconomic and microeconomic advantages, as well as the introduction of new electronic payment systems, have been driving forces behind the movement away from cash and towards a society that does not use currency. A cashless society has various benefits on a national scale, one of which is the potential to lower the overall societal cost that is connected with a country's payment system. This is only one of the benefits that a cashless society may provide. According to research that was conducted by Humphrey et al. (2003), nations that switch from a payment system that is predominately based on paper to one that is wholly based on electronic transactions have the potential to encompass at minimum one percent of its yearly GDP as a result of the increased efficiency of their banking system. When carried out on a more local level, the introduction of innovative electronic payment systems has the potential to confer monetary and experience benefits on payment providers as well as on their clients.

There is a lack of research studies capturing attention on applications that are based upon information generated systems have increased significantly. Understanding the elements that impact customers' intention to embrace information technologies has required the use of a number of different theories, including the behavior planned model representing by Ajzen (1991), the adoption model of technology representing by Ajzen (1991), and the innovation diffusion framework representing by Rogers Everett (1995). The authors offered confirmation model that is based on prior acceptance with extended adoption model of technology in the same article (Bhattacherjee, 2001) to better comprehend users' intents continuously adoption certain framework. Mobile wallet can be introduced as an important element which is valuable importance. The average size of a transaction through mobile wallet is reported in Figure 1.

Researchers are attempting to leverage the pervasive accessibility of smart phones financial dealings, with the goal of reducing the number of peoples who are not being facilitate by banking offerings. Digital platforms are channelizing financial offerings. These services are intended to circumvent the constraints of high costs and physical networks (Manyika et al., 2016). E- wallets or Internet Banking dealings are typical examples of digital financial services (DFS). For the purposes of this discussion, comparison between e wallets and over-the-counter (OTC) transactions, taking into account the various forms and complexities that may arise in different geographical and cultural contexts. Mobile wallets are financial accounts that are commonly, though not always, maintained by banks or telecommunications carriers. These accounts can be accessed and managed by individuals through their mobile devices.

On the other hand, over the counter (OTC) transactions require individuals to personally visit an agent's business to

How To Cite: Mushtaq, A. (2024). Sustaining Digital Payment Adoption: The Role of Performance Expectancy in Shaping Continuance Intentions for Mobile Wallets. *Pollster Journal of Academic Research, 11*(1), 11-17. https://doi.org/10.70890/PJAR.2024.11102

ISSN 2411-2259

complete the transaction. When the recipient receives the funds, they can withdraw them from another agent's business by using a code and presenting an identity document (Ibtasam et al., 2017). M-wallets have become a popular alternative to traditional wallets, debit cards, and credit cards for making online payments using mobile phones. M-wallet supports various types of transactions, including Consumer-to-Business (C2B), Consumer-to-Consumer (C2C), Consumer-to-Machine (C2M), and Consumer-to-Online (C2O) (Shin, 2009). Therefore, the objective of this study is to examine the role of perceived performance expectancy in continuous intention along with the important role of confirmation and satisfaction.

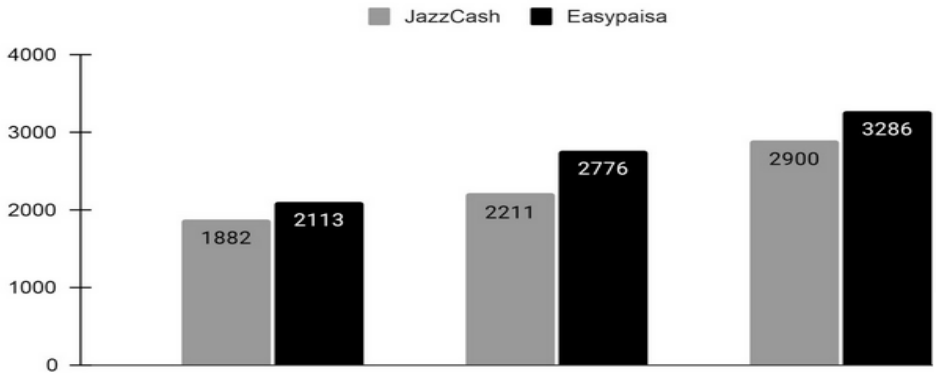

Figure 1: Average Size of Transaction.

Literature Review

The need for digital payments has been continuously expanding throughout the world, since it strives to enable and promote a cashless society (Patil et al., 2020; Sankaran & Chakraborty, 2021). There are several items collectively together for current state affairs. Specifically growing smartphone users, advancements in faster payment methods, and the renewed support from the government. Although virtual payments through mobile devices are becoming more prevalent nationwide, smartphone users and the acceptance of e wallets system leading paperless economy still lag behind the global expansion of virtual payment technology. Mobile payment acceptance is particularly high in developing countries (Patil et al., 2020; Upadhyay et al., 2022). Furthermore, present research on mobile wallet usage is fairly restricted, focusing mostly on digital economies such as the United States and China (Chawla & Joshi, 2020; Singh, Sinha, & Liébana-Cabanillas, 2020). Figure 2 highlighted the conceptual model of the study.

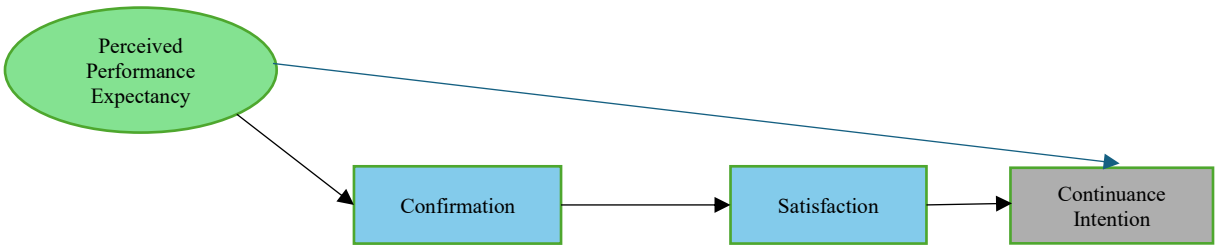

Figure 2: Conceptual Model of the Study.

Mobile banking and mobile payments are the two main types of financial mobile services (Slade, Williams, & Dwivedi, 2013). Individuals may use a desktop computer to complete a variety of financial tasks via Internet banking. "Convenient and innovative services provided by financial institutions that use portable technology to enhance your banking experience." Customers can utilise mobile banking services to complete a variety of financial operations by using mobile applications. Mobile banking applications provide a variety of features that allow consumers to easily and conveniently handle their financial matters. This service offers a wide range of features that will enhance your banking experience. With our user-friendly features, you can effortlessly stay on top of your finances. Check your account balances, examine recent transactions, and simply set up or adjust regular payments such as standing orders and direct debits. Additionally, you can conveniently conduct bank transfers with just a few clicks (Baptista & Oliveira, 2016; Yen & Wu, 2016).

Mobile banking permits clients to the conveniently access their bank accounts from anywhere and at any time (Dash, Bhusan, & Samal, 2014; De Leon, Atienza, & Susilo, 2020; Keo, Norng, & Seng, 2021; Lan & Huong, 2023; Siddik et al., 2014). Therefore, access to mobile banking is very important. This convenience benefit allows customers to have real-time entry to the financial services 24 hours a day, regardless of their location or the time (Komulainen & Saraniemi, 2019). The ease provided by mobile banking has led to a growing number of

clients utilising self-service capabilities offered by banks through their mobile phones. This lessens their reliance on various physical visits to brick-and-mortar banks, accepting financial institutions to accomplish cost savings by the closing physical branches (Harden, 2002). Fast advancement of digital financial technology through mobile phones presents a promising likelihood for delivering financial services at reduced expenditures, so expanding accessibility to a broader range of societal groups (Ali et al., 2018; Danladi et al., 2023; Gladden, 2020; Risman et al., 2023; Shaikh et al., 2020). Over time, the PTA has effectively partnered with the financial regulator, Fintechs, mobile carriers, and international development establishments to realize this potential for developing livelihoods and advancing development.

The implementation of a progressive regulatory framework and the establishment of partnerships between mobile operators and banks have significantly transformed the accessibility of banking services for the unbanked and economically disadvantaged population in the country. This has resulted in the creation of more than 47 million mobile financial accounts, commonly known as m-wallets, and a vast network of over 425,000 mobile banking agents. In comparison, the number of traditional bank branches stands at a significantly lower figure of 13,692. At now, the number of yearly mobile banking transactions exceeds 955 million, equating to an average of 2.6 million transactions per day. These transactions collectively amount to an annual volume surpassing Rs. 3.7 trillion, with daily transactions valued at Rs. 10 billion.

The involvement of mobile carriers has been important in the achievement of this accomplishment, a development that was not anticipated by the conventional banking industry (Cooke, Wang, & Bartram, 2019; Ong, Nguyen, & Syed Alwi, 2017; Salameh et al., 2011; Shair et al., 2021). The mobile banking sector is primarily dominated by two telco-partnered banks, namely Mobilink Microfinance Bank (operating under the brand name jazz cash) and Telenor Microfinance Bank (operating under the brand name Easy paisa). These two banks have a combined market share of 90% in m-wallet accounts and 68% in active agents. The PTA use of biometric verification for Subscriber Identity Modules (SIMs) has significantly contributed to the expansion of mobile wallets in Pakistan. This platform will be interoperable, allowing users to access it from any mobile operator's network, regardless of their location or the time of day (Changchun, Haider, & Akram, 2017; Chen et al., 2017; Fehmeen, 2010). The SBP and the PTA have signed a Memorandum of Understanding (MOU) and established an acceptable regulatory framework to support the technological implementation and interoperability of mobile banking services to promote growth of mobile banking through Pakistan.

The current legislative framework has effectively facilitated the establishment of one-to-one partnerships between mobile providers and banks (Changchun et al., 2017; Fehmeen, 2010). And, the PTA has given licenses to Fintechs/Third Party Service Providers in order to facilitate the provision of specialist services that would improve the interoperability of innovative digital solutions for financial inclusion. To achieve this goal, the PTA has enabled technical integration of cell providers, Fintech companies, and banks. The instant spread of 3G/4G services, together with a large user base of 69.6 million broadband consumers, has created opportunities for expansion of digital payments and e-commerce.

The presence of a conducive regulatory environment and a thriving market for digital financial services in Pakistan has also garnered the attention of Foreign Direct Investment and international collaborations within the industry (Afjal, 2023; Al Suwaidi, Sidek, & Al-Shami, 2022; Mainardes, Costa, & Nossa, 2023; Ozili, 2023). Ant Financial Services Group, noted for its exceptional technological skills in managing Alipay, the world's largest digital payment platform, has just formed a strategic collaboration arrangement with Telenor in Pakistan. As part of the agreement, Ant Financial will make a substantial investment of $184.5 million to secure a 45% ownership in easypaisa, a company owned by Telenor. This study's primary objective in this collaboration is to enhance the expansion and advancement of mobile payment and digital financial services in the region. In addition, Alipay/Ant Financial and Telenor have introduced a new remittance service in Pakistan that utilises blockchain technology. The potential of these collaborations is immense, as they can greatly improve the effectiveness of upcoming digital payment platforms. Furthermore, they can play an important role in providing financial services to people and small enterprises in Pakistan.

The word "performance expectancy" refers to an individual's belief or expectation about the extent to which a specific technology or system would increase work performance. The theory of performance expectancy is directly related to how individuals believe their overall performance will improve by interacting with certain systems. Copious academic publications have meticulously examined and discussed the topic of expectation confirmation theory (ECT), as evidenced by the profound scholarly discourse documented in literature (Bhattacherjee, 2001). Firstly, it is crucial to acknowledge that the Expectancy-Confirmation Theory (ECT) does not incorporate the potential modifications in consumers' expectations that may emerge from their consumption experiences. Furthermore, electroconvulsive treatment (ECT) fails to effectively account for the implications of these modifications on subsequent cognitive functioning. Consumer expectations are usually shaped by personal experiences. Customers' expectations after purchasing may differ from those before purchasing. External elements, such as other people's perspectives and information provided through mass media outlets, frequently influence pre-acceptance expectations. Customers' individual experiences, on the other hand, influence post-acceptance expectations, causing them to become more realistic. For instance, customers' post-purchase expectations may be elevated when they are presented with supplementary benefits of a product or service that are beyond their initial

anticipations. However, if the product or service is perceived to have less value or utility than expected, these expectations may be diminished. The justification for these alterations might be clarified by examining them via the framework of self-perception theory (Bhattacherjee, 2001). According to the proposed theoretical framework, individuals continuously adapt their perceptions, including expectations, as they gain new knowledge about a specific activity.This knowledge is obtained by the systematic observation of individuals' own behaviours as well as the behaviours of others. The modified viewpoints create a solid foundation for future actions. Hence, following an update, the revised post-consumption expectation takes precedence over the initial pre-consumption expectation inside consumers' cognitive memory. This revised expectation serves as a important basis for guiding future decision-making processes. This study suggests that enjoyment can be seen as a composite idea, where updated expectations and confirmation play a crucial role, rather than being solely determined by initial expectations. Form the aforementioned discussion, following hypotheses are proposed:

Hypothesis 1: *Perceived performance expectancy has positive influence on continuous intention.*

Hypothesis 2: *Perceived performance expectancy has positive influence on confirmation.*

Hypothesis 3: *Confirmation has positive influence on satisfaction.*

Hypothesis 4: *Satisfaction has positive influence on continuous intention.*

Methodology

The decision on how to approach aggregation depends on the nature of the situation and the current circumstances (Easterby-Smith, Thorpe, & Jackson, 2012). The design of a study is determined by the sort of research being carried out. The selection of a research methodology for a study depends on the specific nature of the issue being investigated. Researchers have various options to choose from, such as quantitative, qualitative, or mixed methods. Each approach differs in the type of data that is collected. Quantitative analysis is based on the use of numerical data (Cooper & Schindler, 2003). The current research utilised a quantitative approach with cross-sectional research design.

The current research utilises quantitative design for examine interrelationship within factors. This study examines the relationship between variables based on existing theories, models, and hypotheses. Therefore, this study considers quantitative research to be suitable (Cooper & Schindler, 2003; Lateh et al., 2017). Literature recommends using quantitative research design as an effective approach for testing hypotheses, examining relationships between groups, and assessing the interdependence among variables. Furthermore, it is crucial to acknowledge that the quantitative technique is grounded in a positivist ontology and depends on objective criteria (Bryman, 2003). The research unfolds within the geographical context of Pakistan, employing a robust methodology involving data collection from a cohort of 351 adults through a cross-sectional questionnaire survey. PLS-SEM is used as a methodological approach to identify and analyse various relationships.

Data Analysis and Findings

The researcher used PLS-SEM version 3 in the current investigation for the following reasons. First and foremost, it is important to acknowledge that the technique being discussed holds considerable recognition and is extensively used in management and social science research. Furthermore, this approach has received support from a wide range of scholars, as demonstrated in literature (Henseler, Ringle, & Sinkovics, 2009). Moreover, the integration of academic research and practical application has been widely accepted, as demonstrated by the notable contributions of Ringle, Da Silva, and their colleagues in 2015, as well as the recent work of Sarstedt, Ringle, and their team in 2021. Factor loading is given in Table 1 which is higher than 0.5 for all scale items. Furthermore, composite reliability (CR) is higher than 0.7 and AVE is higher than 0.5 which is highlighted in Table 1. The Heterotrait-Monotrait (HTMT) ratio of correlations is used to assess discriminant validity in structural equation modeling. HTMT values are below 0.85 which confirmed that each construct is distinct from others (see Table 2).

Table 1: Factor Loading, CR and AVE.

Variable	Item	Factor Loading	Alpha	CR	AVE
Perceived Performance Expectancy	PPE1	0.78	0.87	0.90	0.70
	PPE2	0.82			
	PPE3	0.85			
	PPE4	0.80			
Continuous Intention	CI1	0.76	0.88	0.91	0.72
	CI2	0.81			
	CI3	0.84			
	CI4	0.78			
Confirmation	CONF1	0.79	0.85	0.89	0.68
	CONF2	0.82			
	CONF3	0.80			
	CONF4	0.77			
Satisfaction	SAT1	0.83	0.86	0.90	0.69
	SAT2	0.80			
	SAT3	0.81			
	SAT4	0.77			

Table 2: HTMT.

Constructs	Performance Expectancy	Continuous Intention	Confirmation	Satisfaction
Performance Expectancy				
Continuous Intention	0.80			
Confirmation	0.75	0.72		
Satisfaction	0.78	0.82	0.77	

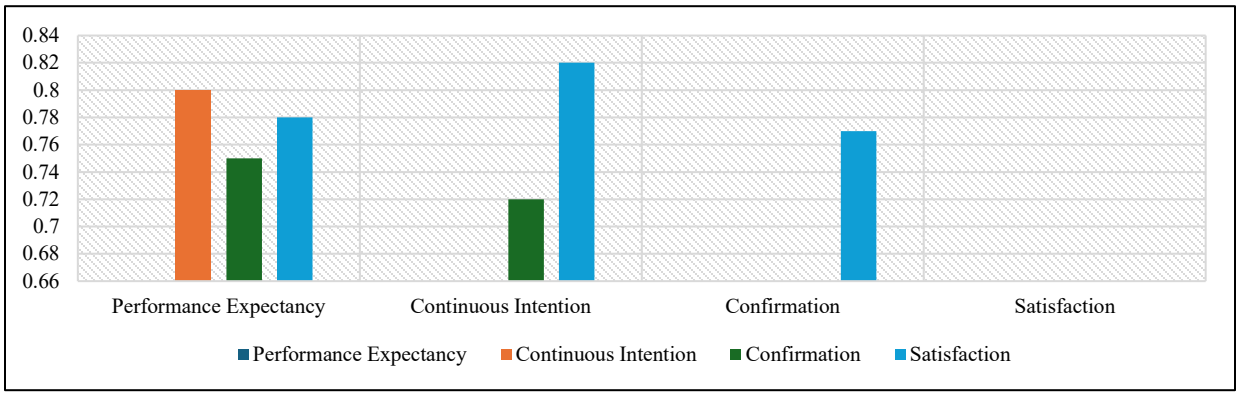

Figure 3: HTMT.

After completing the evaluation of measurement model specifications displayed Figure 3, the PLS-SEM analysis was executed. To accomplish this goal, the significance of the model was evaluated with respect to its relevant path coefficients, t-values test, and standard errors calculation. Using the bootstrapping method provided by Smart PLS 4, the researchers investigated whether or not the hypotheses held true for both the direct and indirect effects. The hypothesis was validated by taking into account the path coefficient and the value of the "t" statistic, as shown in Table 3 and Figure 1. In addition to that, the R2 statistic was analysed which 49% (moderate). As can be seen in Table 3, the current investigation includes a total of four hypotheses. All of the hypotheses (H1, H2, H3, H4) were accepted since the t-value was larger than 1.96.

Table 3: Hypotheses Testing Results.

Hypothesis	Beta Value	t-value	p-value	Result
H1: Perceived Performance Expectancy → Continuous Intention	0.35	6.21	0.000	Supported
H2: Perceived Performance Expectancy → Confirmation	0.40	7.10	0.000	Supported
H3: Confirmation → Satisfaction	0.47	8.35	0.000	Supported
H4: Satisfaction → Continuous Intention	0.50	9.28	0.000	Supported

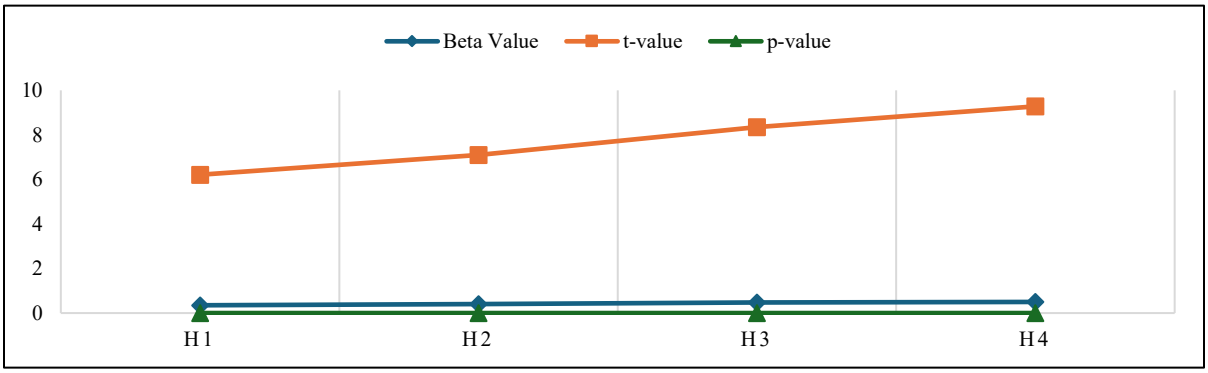

Figure 4: Results.

Conclusion

Based on the results, all hypotheses in the study are supported, indicating that perceived performance expectancy, confirmation, and satisfaction each have positive and statistically significant effect on continuous intention. Therefore, results of the study found positive relationship between all variables. Specifically, perceived performance expectancy positively influences both confirmation and continuous intention, suggesting that when users perceive a high level of performance expectancy, they are more likely to feel satisfied with the system and inclined to continue its use. Hence, perceived performance expectancy has positive effect on intention of the people and confirmation. Also, confirmation positively affects satisfaction, highlighting that when expectations are met, satisfaction

increases. Finally, satisfaction has a strong positive influence on continuous intention, emphasizing that higher user satisfaction enhances the likelihood of continued use. Thus, satisfaction has positive contribution to the promotion of people intention to use mobile wallets. These findings underline the importance of performance expectancy, confirmation, and satisfaction in fostering sustained user engagement, providing valuable insights for strategies aimed at improving user retention and satisfaction.

Acknowledgement

I am deeply grateful to all participants and supporters who made this research possible.

CRediT Authorship Contribution Statement

Anum Mushtaq: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

I confirm that I have no relevant financial or personal interests to disclose.

Funding

I declare that this study was conducted without financial support from external sources.

Ethical Statement

The research complied with ethical guidelines, and approval was not needed since no biological or tissue samples were involved.

Data Availability Statement

The datasets created and examined in this research are accessible from the corresponding author if reasonably requested.

Artificial Intelligence/ Language Module Statement

The author takes full responsibility for this work, which was completed without the use of AI or LLM assistance

References

Afjal, M. (2023). Bridging the financial divide: a bibliometric analysis on the role of digital financial services within FinTech in enhancing financial inclusion and economic development. *Humanities and Social Sciences Communications, 10*(1), 645. https://doi.org/10.1057/s41599-023-02086-y

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T

Al Suwaidi, M. E. Y. M., Sidek, S. B., & Al-Shami, S. A. (2022). A Conceptual Framework of Fintech Laws and Regulations on the Risk Management of Financial Institutions in UAE. *Mathematical Statistician and Engineering Applications, 71*(3), 01-07. https://doi.org/10.17762/msea.v71i3.103

Ali, H., Zain, M. Z., Hashmi, H. S., Abbas, M. H., Shahid, M. W., & Tariq, U. (2018). Awareness and knowledge of fintech among Islamic banking and finance students in Pakistan. *Islamic Banking and Finance Review, 5*, 01-22. https://doi.org/10.32350/ibfr.2018.05.01

Baptista, G., & Oliveira, T. (2016). A weight and a meta-analysis on mobile banking acceptance research. *Computers in Human Behavior, 63*, 480-489. https://doi.org/10.1016/j.chb.2016.05.074

Bátiz-Lazo, B., Haigh, T., & Stearns, D. L. (2014). How the Future Shaped the Past: The Case of the Cashless Society. *Enterprise & Society, 15*(1), 103-131. https://doi.org/10.1093/es/kht024

Bhattacherjee, A. (2001). Understanding Information Systems Continuance: An Expectation-Confirmation Model. *MIS Quarterly, 25*(3), 351-370. https://doi.org/10.2307/3250921

Bhuiyan, M. R. I., Akter, M. S., & Islam, S. (2024). How Does Digital Payment Transform Society as a Cashless Society? An Empirical Study in the Developing Economy. *Journal of Science and Technology Policy Management.* https://doi.org/10.1108/JSTPM-10-2023-0170

Bryman, A. (2003). *Research Methods and Organization Studies* (Vol. 20). Routledge. https://doi.org/10.4324/9780203359648

Changchun, G., Haider, M. J., & Akram, T. (2017). Investigation of the Effects of Task Technology Fit, Attitude and Trust on Intention to Adopt Mobile Banking: Placing the Mediating Role of Trialability. *International Business Research, 10*(4), 77-91. https://doi.org/10.5539/ibr.v10n4p77

Chawla, D., & Joshi, H. (2020). The moderating role of gender and age in the adoption of mobile wallet. *Foresight, 22*(4), 483-504. https://doi.org/10.1108/FS-11-2019-0094

Chen, Z., Li, Y., Wu, Y., & Luo, J. (2017). The transition from traditional banking to mobile internet finance: an organizational innovation perspective-a comparative study of Citibank and ICBC. *Financial Innovation, 3*(1), 1-16. https://doi.org/10.1186/s40854-017-0062-0

Cooke, F. L., Wang, J., & Bartram, T. (2019). Can a Supportive Workplace Impact Employee Resilience in a High Pressure Performance Environment? An Investigation of the Chinese Banking Industry. *Applied Psychology, 68*(4), 695-718. https://doi.org/10.1111/apps.12184

Cooper, D. R., & Schindler, P. S. (2003). *Business Research Methods* (8th ed.). McGraw-Hill Irwin, Boston.

Danladi, S., Prasad, M., Modibbo, U. M., Ahmadi, S. A., & Ghasemi, P. (2023). Attaining Sustainable Development Goals through Financial Inclusion: Exploring Collaborative Approaches to Fintech Adoption in Developing Economies. *Sustainability, 15*(17), 13039. https://doi.org/10.3390/su151713039

Dash, M., Bhusan, P. B., & Samal, S. (2014). Determinants of Customers' Adoption of Mobile Banking: an Empirical Study by Integrating Diffusion of Innovation with Attitude. *Journal of Internet Banking and Commerce, 19*(3), 1-21. https://www.researchgate.net/publication/287716968

De Leon, M. V., Atienza, R. P., & Susilo, D. (2020). Influence of self-service technology (SST) service quality dimensions as a second-order factor on perceived value and customer satisfaction in a mobile banking application. *Cogent Business & Management, 7*(1), 1794241. https://doi.org/10.1080/23311975.2020.1794241

Easterby-Smith, M., Thorpe, R., & Jackson, P. R. (2012). *Management Research*. Sage.

Fehmeen. (2010). Microfinance Africa, June 05, 2010: Economic and Legal Conditions Favourable for Mobile Banking – Part I. *Microfinance Africa, Microfinance Hub, April 30, 2010.*

Gladden, M. (2020). Authority of Asosiasi Fintech Pendanaan Bersama Indonesia (AFPI) in Determining the Amount of Loan Interest Rates Limit in Peer to Peer Lending (P2P Lending) Business Activities. In *The 2nd Tarumanagara International Conference on the Applications*

of Social Sciences and Humanities (TICASH 2020) (pp. 742-747). Atlantis Press. https://doi.org/10.2991/assehr.k.201209.117

Harden, G. (2002). E-banking comes to town: Exploring how traditional UK high street banks are meeting the challenge of technology and virtual relationships. *Journal of financial services Marketing, 6*, 323-332. https://doi.org/10.1057/palgrave.fsm.4770062

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The Use of Partial Least Squares Path Modeling in International Marketing. In *New Challenges to International Marketing* (Vol. 20, pp. 277-319). Emerald Group Publishing Limited. https://doi.org/10.1108/S1474-7979(2009)0000020014

Humphrey, D., Willesson, M., Lindblom, T., & Bergendahl, G. (2003). What Does It Cost to Make a Payment? *Review of Network Economics, 2*(2), 159-174. https://doi.org/10.2202/1446-9022.1024

Ibtasam, S., Mehmood, H., Razaq, L., Webster, J., Yu, S., & Anderson, R. (2017). An Exploration of Smartphone Based Mobile Money Applications in Pakistan. In *Proceedings of the Ninth International Conference on Information and Communication Technologies and Development* (pp. 1-11). Association for Computing Machinery. https://doi.org/10.1145/3136560.3136571

Keo, S., Norng, S., & Seng, S. (2021). Consumers' Attitudes toward Intention to Adopt Mobile Banking: The Adoption of Diffusion of Innovation Theory on the Study of ABA Mobile Bank. In *AIB Research Series* (pp. 33-48). Acleda Institute of Business. https://www.acleda-aib.edu.kh/tc/eng/business-news-20210302.pdf

Komulainen, H., & Saraniemi, S. (2019). Customer centricity in mobile banking: a customer experience perspective. *International Journal of Bank Marketing, 37*(5), 1082-1102. https://doi.org/10.1108/IJBM-11-2017-0245

Lan, D. T. K., & Huong, N. T. G. (2023). Impact of Service Quality and Relative Advantage of Mobile Banking on Customer Loyalty: The Mediating Role of Satisfaction. *International Journal of Advanced Multidisciplinary Research and Studies, 3*(6), 447-453. https://www.multiresearchjournal.com/admin/uploads/archives/archive-1700570695.pdf

Lateh, N. H. M., Shamsudin, S., Singh, M. K. S., & Said, S. M. (2017). Is Receptive Vocabulary Knowledge a Predictor for English as a Second Language Learners' Level of Speaking Performance? *Advanced Science Letters, 23*(4), 2907-2910. https://doi.org/10.1166/asl.2017.7601

Mainardes, E. W., Costa, P. M. F., & Nossa, S. N. (2023). Customers' satisfaction with fintech services: Evidence from Brazil. *Journal of Financial Services Marketing, 28*(2), 378-395. https://doi.org/10.1057/s41264-022-00156-x

Manyika, J., Lund, S., Singer, M., White, O., & Berry, C. (2016). *Digital Finance for All: Powering Inclusive Growth in Emerging Economies*. McKinsey & Company. https://www.findevgateway.org/paper/2016/09/digital-finance-all-powering-inclusive-growth-emerging-economies

Ong, K. S., Nguyen, B., & Syed Alwi, S. F. (2017). Consumer-based virtual brand personality (CBVBP), customer satisfaction and brand loyalty in the online banking industry. *International Journal of Bank Marketing, 35*(3), 370-390. https://doi.org/10.1108/IJBM-04-2016-0054

Ozili, P. K. (2023). Determinants of FinTech and BigTech lending: the role of financial inclusion and financial development. *Journal of Economic Analysis, 2*(3), 66-79. https://doi.org/10.58567/jea02030004

Patil, P., Tamilmani, K., Rana, N. P., & Raghavan, V. (2020). Understanding consumer adoption of mobile payment in India: Extending Meta-UTAUT model with personal innovativeness, anxiety, trust, and grievance redressal. *International Journal of Information Management, 54*, 102144. https://doi.org/10.1016/j.ijinfomgt.2020.102144

Risman, A., Ali, A. J., Soelton, M., & Siswanti, I. (2023). The behavioral finance of MSMEs in the advancement of financial inclusion and financial technology (fintech). *The Indonesian Accounting Review, 13*(1), 91-101. https://mpra.ub.uni-muenchen.de/id/eprint/118212

Rogers Everett, M. (1995). *Diffusion of Innovations* (4th ed.). The Free Press, New York.

Salameh, R., Al-Weshah, G., Al-Nsour, M., & Al-Hiyari, A. (2011). Alternative Internal Audit Structures and Perceived Effectiveness of Internal Audit in Fraud Prevention: Evidence from Jordanian Banking Industry. *Canadian Social Science, 7*(3), 40-50. https://doi.org/10.3968/j.css.1923669720110703.007

Sankaran, R., & Chakraborty, S. (2021). Why customers make mobile payments? Applying a means-end chain approach. *Marketing Intelligence & Planning, 39*(1), 109-124. https://doi.org/10.1108/MIP-12-2019-0622

Shaikh, I. M., Qureshi, M. A., Noordin, K., Shaikh, J. M., Khan, A., & Shahbaz, M. S. (2020). Acceptance of Islamic financial technology (FinTech) banking services by Malaysian users: an extension of technology acceptance model. *Foresight, 22*(3), 367-383. https://doi.org/10.1108/FS-12-2019-0105

Shair, F., Shaorong, S., Kamran, H. W., Hussain, M. S., & Nawaz, M. A. (2021). Assessing the efficiency and total factor productivity growth of the banking industry: do environmental concerns matters? *Environmental Science and Pollution Research, 28*(16), 20822-20838. https://doi.org/10.1007/s11356-020-11938-y

Shin, D.-H. (2009). Towards an understanding of the consumer acceptance of mobile wallet. *Computers in Human Behavior, 25*(6), 1343-1354. https://doi.org/10.1016/j.chb.2009.06.001

Siddik, M. N. A., Sun, G., Yanjuan, C., & Kabiraj, S. (2014). Financial inclusion through mobile banking: a case of Bangladesh. *Journal of Applied finance and Banking, 4*(6), 109-136. https://www.scienpress.com/Upload/JAFB/Vol%204_6_7.pdf

Singh, N., Sinha, N., & Liébana-Cabanillas, F. J. (2020). Determining factors in the adoption and recommendation of mobile wallet services in India: Analysis of the effect of innovativeness, stress to use and social influence. *International Journal of Information Management, 50*, 191-205. https://doi.org/10.1016/j.ijinfomgt.2019.05.022

Slade, E. L., Williams, M. D., & Dwivedi, Y. K. (2013). Mobile payment adoption: Classification and review of the extant literature. *The Marketing Review, 13*(2), 167-190. https://doi.org/10.1362/146934713X13699019904687

Upadhyay, N., Upadhyay, S., Abed, S. S., & Dwivedi, Y. K. (2022). Consumer adoption of mobile payment services during COVID-19: Extending meta-UTAUT with perceived severity and self-efficacy. *International Journal of Bank Marketing, 40*(5), 960-991. https://doi.org/10.1108/IJBM-06-2021-0262

Yen, Y.-S., & Wu, F.-S. (2016). Predicting the Adoption of Mobile Financial Services: The Impacts of Perceived Mobility and Personal Habit. *Computers in Human Behavior, 65*, 31-42. https://doi.org/10.1016/j.chb.2016.08.017