

## **Mobile Banking Adoption: A Closer Look at the Role of Online Convenience Dimensions**

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### ***Abstract***

The main focus of the study was two-fold: 1) identifying the most important online convenience factors that financial institutions should prioritize to encourage consumers to adopt mobile banking, and 2) understanding how the role of these factors differs within the context of developing countries. This presents a distinctive perspective on mobile banking in developing countries whose customers have limited knowledge of mobile banking functionality compared to those in developed economies. The study involved 274 participants from Uganda. The results reveal that convenience in terms of access, transactions, and possession/post-possession significantly and positively impacts consumers' intentions to adopt mobile banking. It was also found that customers' intentions to adopt mobile banking play a crucial role in driving adoption and usage. However, convenience factors related to search and evaluation were not found to significantly impact consumer intent to adopt mobile banking. Overall, this study provides valuable insights for financial managers in developing economies and contributes to the existing body of banking literature.

**Keywords:** mobile banking, online convenience, online convenience dimensions, mobile banking adoption intention, mobile banking adoption

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*Submitted: 2023-06-24 / Accepted: 2024-03-07 / Published: 2024-03-09*

## **1. INTRODUCTION**

Banks across the globe are introducing mobile banking solutions to provide customers with self-service financial options. To facilitate this shift, online financial systems have been developed, and financial institutions are now encouraging their clients to use digital financial services. Mobile banking is the most efficient and effective way for both financial institutions and customers to carry out financial transactions (Calli, 2023). Mobile phones allow customers to conveniently pay bills, transfer funds, and apply for loans (Jiale, 2022). As a popular technology in the 21st century, mobile banking is recognized as a crucial pillar for inclusive financial growth and development. It provides a convenient approach to reaching out to financially unbanked and underbanked communities (Gallego-Losada et al, 2023). Financial institutions prefer mobile banking for its low costs and increased customer reach, while customers appreciate its convenience. Mobile banking is a game-changer for those who prioritize comfort and ease of use. According to Shankar and Rushi (2020), convenience sets mobile banking apart from traditional banking services. Jebarajakirthy and Shankar (2021) emphasize the significance of online convenience in today's world, where the Internet of Things has transformed how we interact with technology. With online convenience, customers can easily access information and make informed decisions about mobile banking services, without worrying about cumbersome processes. Instead, they can enjoy an endless experience that caters to their interests and needs.

Mobile banking has become increasingly popular among consumers of financial services due to its access convenience, search convenience, evaluation convenience, transaction convenience, and possession/post-possession convenience (Shankar et al., 2020; Jadil et al., 2013; Shankar and Rishi, 2020; Shankar and Jebarajakirthy 2021; Khan et al., 2022; Ong and Chong, 2023). Gupta and Dhingra (2022) note that customers can perform financial transactions anytime, anywhere, and receive instant authentic feedback. In contrast, a branch banking system requires a significant amount of resources, such as human and financial, to extend financial services to unbanked and underbanked communities (Jebarajakirthy and Shankar, 2021). The operational costs can easily become overwhelming for banks. Additionally, travelling to a branch bank for a service can be both expensive and time-consuming for customers. Therefore, banking institutions are keen on identifying the dimensions of online convenience that are crucial in encouraging customers to adopt mobile banking.

While there have been efforts to understand the convenience of online services, there remains a gap in the discussion (Jebarajakirthy and Shankar, 2021; Mombeuil and Uhde, 2021). Notably, previous research has primarily focused on developed countries and major emerging economies like Germany, India, and China (Shankar et al., 2021; Laukkanen, 2016; Chen et al., 2021). However, technology adoption plays a crucial role in the economic growth of developing nations (World Bank, 2022). Those with lower incomes need access to affordable financial services. Technological adoption can help reduce the social and economic disparities between developing and developed nations (United Nations, 2018). For mobile banking customers in developing countries, convenience is key to their adoption of mobile banking, as they typically have limited knowledge of mobile banking functionality. While previous studies on factors influencing customers' intent to adopt mobile banking in developing countries like Uganda have focused on various factors such as performance expectancy, perceived security concern, trust, perceived usefulness, perceived ease of use, and perceived social influence (Maduku, 2014; Murendo et al., 2018; Thusi, and Maduku 2020; Milly et al., 2021, Nonvide and Alinsato, 2023), they have paid little attention to the dimensions of online convenience.

In light of these circumstances, the purpose of this study is to investigate the key online convenience factors that banks in low-income economies with customers who are less familiar with mobile banking technology must prioritize to facilitate their adoption of mobile banking. These online convenience dimensions include access, search, evaluation, transaction, and possession/post-possession convenience, as identified by Shankar and Jebarajakirthy (2021), Khan et al. (2022), and Ong and Chong (2023). This study aims to illustrate how each of these dimensions of online convenience impacts customers' intent to embrace mobile banking in developing countries. Furthermore, the study employs the stimulus-organism-response (S-O-R) theory (Mehrabian and Russell, 1974) to demonstrate how environmental cues impact mobile banking customers' behaviour in developing countries. The stimuli generated by the online convenience dimensions influence their intentions (organism) to adopt mobile banking, and their response is to adopt and use mobile banking (Jebarajakirthy and Shankar, 2021). Thus, this study aligns with the evolving expectations of customers for mobile banking in developing countries such as Uganda.

## **2. REVIEW OF RELATED LITERATURE**

### **2.1 Mobile Banking**

Mobile banking has emerged as a powerful and efficient tool for connecting with customers. This technology offers customers the convenience of executing a variety of transactions with ease, such as accessing accounts, paying bills, transferring funds, securing loans, and making payments, as evidenced by studies conducted by Ho et al. (2020), Jiale (2022), and Li et al. (2022). Despite its critical importance, research on the

convenience of mobile banking for customers has mainly focused on developed countries and major economies such as Germany, India, and China (Shankar et al., 2021; Laukkanen, 2016; Chen et al., 2021). As a result, developing countries face challenges in providing seamless online services, with system downtime and delayed or no response to toll-free lines negatively impacting customer experiences and increasing reliance on more expensive traditional banking methods (Microsave, 2017; UNDP-Uganda, 2020). This is because the population in developing countries often has limited knowledge of mobile banking functionality. According to the United Nations (2018) and World Bank (2022), the low technological adoption in developing countries has increased social and economic inequalities between developing and developed countries. This, combined with online inconveniences has hindered efforts to make mobile banking accessible to everyone in developing countries. Previous studies on mobile banking in developing countries have identified factors such as perceived ease of use, behavioural control, compatibility, social influence, performance expectancies, and hedonic motivations that impact customers' intention to adopt mobile banking (Shankar et al., 2020, Shankar and Rushi, 2020, Zhu et al., 2022, Jiale, 2022, Ciunova-Shuleska et al., 2022, Li et al., 2022, Samsudeen, 2020). However, despite the increasing adoption of mobile banking for its convenience, this aspect of banking has received little attention, particularly in developing countries (Shankar and Rushi, 2020).

## **2.2 Online Convenience**

According to Chowdhury (2023), convenience is the most important factor that influences consumers' purchasing decisions. This is particularly relevant when it comes to mobile banking adoption, as customers are drawn to the ease and efficiency that online banking offers. With online convenience, customers can quickly compare prices, make decisions, and complete transactions with minimal effort and cost (Jebarajakirthy and Shankar, 2021). As a result, banks worldwide are investing significant resources in developing software and training employees to provide effective and efficient online banking services (Duarte et al., 2018; Mutya, 2020). Customers value the convenience of time-saving, mobility, less effort, and overall efficiency, which has made online convenience an attractive prospect for the banking industry (Shankar et al., 2021; Khan et al., 2022). Although visiting a financial institution can be time-consuming and require effort, customers still expect quick and efficient service (Duarte et al., 2018). Previous studies have identified the most critical factors of online convenience to be access, search, evaluation, transaction, possession, and post-possession convenience (Mahapatra, 2017; Shankar, 2019; Shankar and Rushi, 2020; Jebarajakirthy and Shankar, 2021). Mahapatra (2017) noted that search and possession convenience is linked to consumption, while access, evaluation, and post-possession convenience are linked to continued usage. Shankar and Rushi (2020) and Jebarajakirthy and Shankar (2021) found that access, transaction, possession, and post-possession are strongly correlated. However, Benoit et al. (2017) identified search convenience as a significant dimension, and Kaura (2017) demonstrated that all dimensions play a crucial role in enabling the adoption of mobile banking.

## **2.3 Theoretical Background**

This study utilizes the stimulus-organism-response model developed by Mehrabian and Russell (1974) to showcase how changes in personal behaviour can be attributed to environmental cues that are processed by individuals. Stimulus represents the external environmental cues that impact an individual's behaviour. While an organism is the internal condition reflected in an individual as a result of the stimulus. On the other hand, response is the feedback expressed by an individual when the stimulus influences the organism. Since technology is an external factor that causes the reaction and behavioural change among individuals, this makes S-O-R appropriate in the study of online convenience dimensions and mobile banking. Similarly, this study presents online convenience dimensions and mobile banking in developing countries where the customers have limited knowledge of mobile banking functionality. This makes online convenience factors necessary stimuli to influence individuals' intentions to adopt mobile banking. In fact, a previous study by Shankar and Rushi (2020) used S-O-R in the study of mobile banking in India. Sun et al. (2021) and Duong (2023) also used S-O-R to study individuals' intentions and final decision-making. Similarly, the Laato et al. (2020) study supports Mehrabian and Russell's (1974) theory, indicating that surrounding cues influence an individual's intention to respond. Against such a backdrop, the S-O-R model is fit for this study. Access convenience, search convenience, evaluation convenience, transaction convenience, and possession/post-possession convenience provide an easy and quick environment for customers to use mobile banking services anytime and anywhere. On that note, online convenience is a stimulus that influences customers' intention (organism) to adopt mobile banking, ultimately leading to the customers' adoption and use of mobile banking (response). Thus, the study identifies access convenience, search convenience, evaluation convenience, transaction convenience, and possession/post-possession convenience as factors that stimulate and increase customers' intention to adopt and use mobile banking, as shown in Figure 1.

## **2.4 Hypothesis Development**

According to research by Roy et al. (2018) and Jebarajakirthy and Shankar (2021), access convenience involves factors such as internet site accessibility, product availability online, and flexibility in terms of time and place. For mobile banking services, ease and simplicity of access and obtaining services are the most crucial aspects of access convenience. Customers today desire quick access to banking services on their mobile devices from anywhere in the world in the least amount of time possible. This high level of convenience can result in satisfied customers who may refer others to the bank, ultimately leading to long-term profits for the bank. Additionally, banks can avoid heavy investment in creating new physical branches to reach potential customers. In fact, Shankar et al. (2021) found that establishing branch banks may have limited value in a growing green economy. Therefore, we hypothesize that:

*H1: Access convenience has a positive impact on mobile banking adoption intention.*

The use of mobile banking services is on the rise as customers increasingly seek information prior to making their purchasing decisions. This trend, driven by advances in technology and the internet, has led customers to view mobile virtual platforms as convenient and cost-effective sources for obtaining necessary information (Mahapatra, 2017). To meet these expectations, banks have to prioritize efforts to make the search process efficient and effective. Customers can easily access pertinent information on their mobile devices at any time, providing a faster and simpler banking experience (Benoit et al., 2017). However, if the search value in terms of time and effort is deemed excessive, customers may abandon the service (Shankar, 2020). Therefore, banks that offer relevant and accurate information will have an advantage in attracting and retaining customers. By minimizing transportation expenses and avoiding long queues, customers are encouraged to make informed decisions and banks can build their consumer base. Thus, hypothesis 2 states that:

*H2: Search convenience has a positive impact on mobile banking adoption intention.*

When it comes to mobile banking, customers want to make informed decisions. Comparing products based on cost-effectiveness, time utilization, and necessary effort is key. Clear and concise product descriptions are essential for customers to make rational choices (Shankar, 2021). Factors such as product information, pricing, performance, and authenticity can all contribute to a customer's decision-making process (Duarte et al., 2018). Online reviews and feedback make it easy for customers to evaluate products before making a choice. Comparing financial institution products and pricing can help customers find exceptional deals (Jiang et al., 2013). In-person banking can make it difficult for customers to connect with others and evaluate products. However, the convenience of online evaluations can give customers confidence in adopting mobile banking. Therefore, it can be hypothesized that:

*H3: Evaluation convenience positively impacts mobile banking adoption intention.*

The demand for speed and accuracy in the digital business world is increasing, and this trend has had a significant impact on the banking sector due to the emergence of financial technology. According to Shankar (2019), customers want a seamless mobile banking system that is simple, quick, and cost-effective. They also prefer transaction confirmation, encryption, and reliable tracking options in case of failed transactions to save time, effort, and money (Shankar and Rishi, 2020). When transactions are completed quickly and efficiently, customers experience increased happiness and may become more likely to refer others to the bank. With the growing availability of technology, customers now prefer self-service options that allow them to handle their transactions and gain financial skills. This approach saves time and money without any interruption. In contrast, visiting a physical bank branch can be costly and may not help customers understand the banking system's workings or complete their transactions (Shankar et al., 2021). Therefore, hypothesis 4 suggests that

*H4: Transaction convenience positively impacts mobile banking adoption intention.*

Customers engage in business transactions primarily to obtain possession benefits. The transaction is considered successful once the intended beneficiary receives the product or service (Aw, 2019). However, due to technological failures in online transactions, possession convenience has become a focal point for stakeholders in the banking industry. It decreases uncertainty among customers regarding future transactions, allowing them to reap several benefits with minimal time and effort, such as on-the-spot cash withdrawals, deposits, and secure investments (Khan et al., 2022). Additionally, post-possession convenience refers to the "time and effort required to contact a provider after a specific transaction" (Jebarajakirthy and Shankar, 2021). Customers often experience transaction failures due to technical challenges such as connectivity issues and slow internet speeds (Shankar, 2020). Banks are offering a range of online tools to address such issues, including

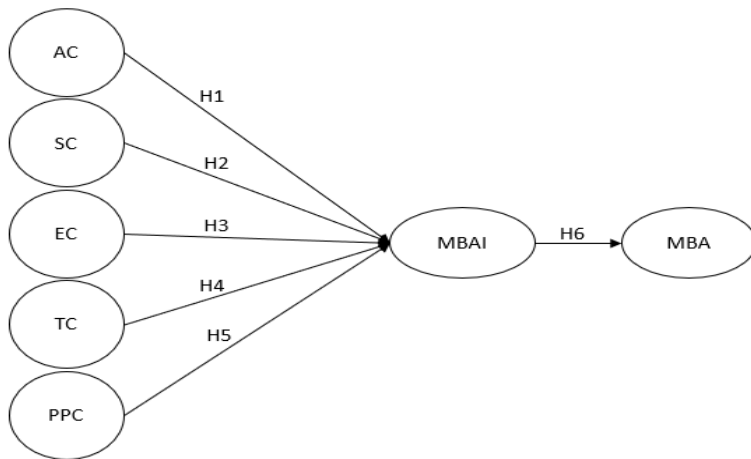
artificial intelligence-powered real-time grievance status monitoring and question-and-answer links to provide swift responses to transaction interruptions. This enables customers to overcome obstacles effortlessly without wasting time or exerting much effort. However, if customers opt for branch banking, they may have to pay for transportation and spend time visiting the branch to resolve their transaction issues. Therefore, the less time and effort customers spend on managing a failed transaction, the greater their perceived online convenience (Duarte et al., 2018). Hence hypothesis 5 posits that:

*H5: Possession/post-possession convenience has a positive impact on mobile banking adoption intention.*

According to Shankar and Rishi (2020), the desire to utilize mobile banking often results in its successful adoption and usage. This adoption is heavily influenced by customers' initial intention to use mobile banking, as noted by Akhtar et al. (2019) and Ho et al. (2020). If customers perceive mobile banking as a solution that satisfies their financial requirements, they are more likely to embrace it and continue using it. Therefore, we propose hypothesis 6, which suggests that:

*H6: A strong mobile banking adoption intention leads to increased mobile banking adoption.*

**Figure 1: Study model**



*AC=Access convenience, SC=Search convenience EC=Evaluation convenience, TC=transaction convenience, PPC=Possession/post-possession convenience*

### 3. RESEARCH METHODOLOGY

The research analyzed individuals from Uganda who utilized mobile banking services. Despite being a low-income country, the widespread use of mobile banking, along with an abundance of digital financial retail outlets and a growing internet usage associated with a high youth population, made Uganda an ideal setting for this study (Balgobin and Dubus, 2022). The researchers utilized a systematic sampling approach to gather data through a paper-based questionnaire. Financial retail agents in Kampala City and Mbale City, where mobile banking usage was rapidly increasing, were visited to collect data. To ensure unbiased results, a screening question was employed to filter out non-mobile banking users. Additionally, the systematic technique was used to approach every fourth customer, rather than just selecting individuals who volunteered to participate. This helped mitigate family bias. Ultimately, 274 out of the 305 questionnaires distributed (89.8% response rate) were suitable for analysis. As customers are now able to conduct transactions across multiple financial platforms, the institutional effect has been reduced. Financial retail agents represent various banks and telecommunication networks that provide mobile banking services. The measurement items used in this study were adapted from previous research on online convenience and mobile banking adoption, with some modifications made to meet the study's specific purpose. The study includes three items on access convenience (Jiang et al., 2013; Jebarajakirthy and Shankar, 2021), three items on search convenience (Jebarajakirthy and Shankar, 2021), three items on evaluation convenience (Shankar and Rishi, 2020), three items on transaction convenience (Duarte et al, 2018; Jebarajakirthy and Shankar, 2021), four items on possession/post-possession convenience (Shankar and Rishi, 2020; Jebarajakirthy and Shankar, 2021), three items on mobile banking adoption intention (Shankar and Rishi, 2020), and three items on mobile money adoption (Jebarajakirthy and Shankar, 2021).

4. RESULTS

Table 1: Demographic profiles

Category		Number = 274	Percentage
Gender	Male	124	45.3
	Female	150	54.7
Age	15-25 years	107	39.1
	25-35 years	104	37.9
	35-45 years	50	18.2
	45-55 years	13	4.8
Education	Primary	33	26.0
	Secondary	126	61.0
	Bachelor degree	98	35.7
	Master degree	17	6.2
Experience	Less than 5 years	166	60.6
	5-10 years	78	28.5
	10-15 years	30	10.9

Table 2: Reliability and Validity

Constructs of Online Convenience	Statements	Factor Loading
Access Convenience ( $\alpha=0.913$ , CR=0.916, AVE=0.779)	I can use mobile banking services anytime	0.845
	I can use mobile banking services anywhere	0.861
	I can always access mobile banking	0.939
Search Convenience ( $\alpha=0.906$ , CR=0.909, AVE=0.765)	It is easy to operate the mobile banking application	0.918
	I can find what I want without having to look elsewhere	0.820
	I can get useful information on the application	0.883
Evaluation Convenience ( $\alpha=0.899$ , CR=0.867, AVE=0.683)	The application provides detailed service specifications	0.826
	There is sufficient information to identify different products	0.921
	It provides an interactive interface with icons and images	0.974
Transaction Convenience ( $\alpha=0.869$ , CR=0.874, AVE=0.694)	I can complete my transaction easily with mobile banking	0.799
	I take a short time to complete a transaction	0.843
	I always feel safe providing my data on the platform	0.836
Possession/Post possession Convenience ( $\alpha=0.888$ , CR=0.894, AVE=0.666)	I take a short time to get what I want	0.744
	It takes less effort to get what I want	0.787
	It is easy to take care of failed transactions	0.901
	Any after-consumption problems are quickly resolved	0.826
Mobile banking Adoption Intention ( $\alpha=0.869$ , CR=0.874, AVE=0.694)	I intend to use m-banking in the future.	0.775
	I expect that I will use m-banking in the future	0.862
	I plan to use m-banking applications in the future	0.860
Mobile Banking Adoption ( $\alpha=0.887$ , CR=0.894, AVE=0.727)	I will continue to avail myself of services over the mobile banking platform	0.937
	I prefer to use mobile banking for financial services	0.806
	I will use mobile banking more often	0.809

Table 3: Discriminant validity

	AC	SC	EC	TC	PPC	MBAI	MBA
Access Convenience	0.883 <sup>a</sup>						
Search Convenience	0.430**	0.875 <sup>a</sup>					
Evaluation Convenience	0.059	0.044	0.826 <sup>a</sup>				
Transaction Convenience	0.499**	0.431**	0.056	0.833 <sup>a</sup>			
Possession/Post Possession Convenience	0.565**	0.412**	0.050	0.622**	0.816 <sup>a</sup>		
Mobile Banking Adoption Intention	0.714**	0.489**	0.035	0.699**	0.720**	0.833 <sup>a</sup>	
Mobile Banking Adoption	0.473**	0.352**	0.095	0.551**	0.485**	0.840**	0.853 <sup>a</sup>

\*\* Correlation is significant at  $p < 0.01$ .

<sup>a</sup> the square root of AVE of each latent construct.

**Table 4: Path coefficients**

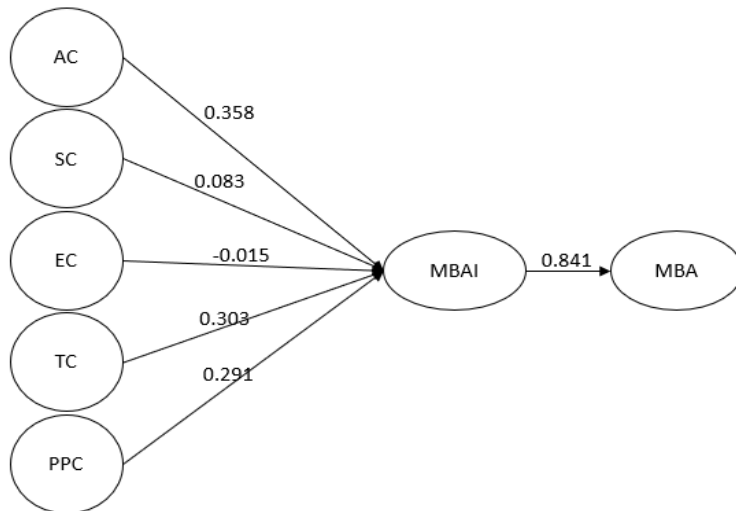
	coefficients
Access Convenience → Mobile Banking Adoption Intention	0.358
Search Convenience → Mobile Banking Adoption Intention	0.083
Evaluation Convenience → Mobile Banking Adoption Intention	-0.015
Transaction Convenience → Mobile Banking Adoption Intention	0.303
Possession/Post Possession Convenience → Mobile Banking Adoption Intention	0.291
Mobile Banking Adoption Intention → Mobile Banking Adoption	0.841

Standardized Root Mean Squared Residual (SRMR)=0.041,  $d_{ULS}$ =0.431,  $d_G$ =0.521, Chi-Square=728.112, Normed Fit Index (NFI)=0.853

**4.1 Path Analysis**

The researchers utilized Smart PLS4 to create a structural equation model that examined the proposed hypotheses. Results in Table 4 and Figure 2 reveal that access convenience (b=0.358), possession/post-possession convenience (b=0.291), and transaction convenience (b=0.303) significantly increase customers' likelihood of adopting mobile banking. Likewise, the intention to adopt mobile banking (b=0.841) significantly impacts mobile banking adoption. However, neither evaluation convenience (b=-0.015) nor search convenience (b=0.083) significantly influenced customers' intentions to adopt mobile banking. Therefore, we accept hypotheses one (H1), four (H4), five (H5), and six (H6) while rejecting hypotheses two (H2) and three (H3). Additionally, the R2 value for intention to adopt mobile banking was 0.714, and for actual adoption, it was 0.707. This indicates that the proposed model effectively explains 71.4% of the variation in customer intent to adopt mobile banking and 70.7% of the variation in mobile banking adoption. Moreover, all variables had a variance inflation factor (VIF) of less than 2, indicating no multi-collinearity. The model had a Standardized Root Mean Squared Residual (SRMR) of 0.041,  $d_{ULS}$  of 0.431,  $d_G$  of 0.521, Chi-Square of 728.112, and Normed Fit Index (NFI) of 0.853, signifying its acceptability and fit, as reported by Hair (2017).

**Figure 2: model path results**



**5. DISCUSSION OF RESULTS**

In today's banking landscape, mobile banking has become a necessity for those who want to participate in the system. It offers unparalleled convenience, allowing consumers to conduct financial transactions effortlessly from anywhere in the world (Benoit et al., 2017, Shankar and Rushi, 2020). Due to its user-friendly interface and simplicity, banks are investing more resources in enhancing their online customer experience (Duarte et al., 2018). In Uganda, banks are actively seeking ways to improve their online services. Our research, outlined in Table 4, reveals that access convenience, transaction convenience, and possession/post-possession convenience are the key factors that positively impact customers' willingness to adopt mobile banking.

Customers can conveniently access their bank's internet-based site, and financial products can be obtained quickly through online platforms from anywhere (Roy et al., 2018). This exceptional convenience often leads to satisfied customers recommending the bank to others, ultimately increasing revenues without the need for new bank locations. The most crucial aspects of access convenience are the ease and simplicity of accessing and utilizing mobile banking services. The study also found that customers value transaction convenience, with a

significant impact on their intent to adopt mobile banking (Jebarajakirthy and Shankar, 2021). Customers desire a seamless mobile banking system that allows them to perform transactions quickly, easily, and economically. They prioritize transaction convenience for fast confirmation and end-to-end encryption to save time and ensure security (Shankar and Rishi, 2020). Nowadays, customers prefer self-service over traditional banking services, as mobile banking empowers them to manage their transactions and develop their financial abilities.

The study findings indicate that possession/post-possession convenience plays a crucial role in influencing customers' inclination towards mobile banking, which is consistent with the research conducted by Duarte et al. (2018) and Jebarajakirthy and Shankar (2021). As per Aw (2019), a transaction is considered successful only when the intended recipient receives the product or service. This makes it possible for customers to transfer money effortlessly and quickly to anyone and anywhere, as noted by Khan et al. (2022). Furthermore, post-possession convenience enables customers to resolve any challenge with financial institutions swiftly and with minimal effort. However, the interruptions are typically due to low internet speed, which leads to transaction failure, in line with the findings in Kaura (2013), Mahapatra (2017), Shankar and Rushi (2020), and Jebarajakirthy and Shankar (2021). They all found possession/post-possession convenience, transaction convenience, and access convenience to be significant predictors of customers' intention to adopt mobile banking. Our results also reveal that customers with high intent to adopt mobile banking are more likely to adopt and use mobile banking products and services, which is consistent with the findings of Laukkanen (2016), Chen et al. (2021), and Shankar and Rushi (2020). These studies indicate that environmental cues, including online convenience dimensions, can stimulate customers' organisms into increased intention to adopt mobile banking, which ultimately results in actual adoption and usage.

However, the results of a recent study have shown that customers' inclination toward mobile banking remains largely unaffected by evaluation and search convenience. These results align with previous findings by Shankar and Rushi (2020) and Jebarajakirthy and Shankar (2021), suggesting that visiting a physical bank can help customers better understand and explore new financial products and services. By doing so, customers can connect with bank executives and gain insights into the latest developments, thereby reducing the predictive value of evaluation and search convenience on customers' adoption of mobile banking. Similarly, customers may not be able to notice changes in online banking systems as their primary focus is on completing transactions. Consequently, search convenience is deemed a weak determinant of customers' intention to embrace mobile banking. Moreover, the study found that evaluation convenience is also a weak predictor since customers may lack the financial knowledge and expertise required to compare and evaluate financial products and services online. Therefore, they may need to consult branch banks for guidance and advice to make informed decisions. These findings correspond with those of previous studies in India by Shankar and Rushi (2020) and Shankar and Jebarajakirthy (2021), indicating that access convenience, transaction convenience, and possession/post-possession convenience dimensions of online convenience are more influential than evaluation and search convenience.

However, these results contradict the previous studies conducted by Mahapatra (2017) and Kaura (2013), who discovered that search convenience plays a significant role in customers' decision to adopt mobile banking. According to Mahapatra (2017) and Kaura (2013), mobile banking applications offer users links to question-and-answer pages, detailed information about products and services, and clear terms and conditions, making it easy to search for information. However, some information concerning costs and other operations of new products and services may not be available online, requiring a visit to the branch bank. Additionally, Duarte et al. (2018) found that evaluation convenience has a positive and significant impact on customers' adoption of mobile banking. Nevertheless, the findings of Shankar and Rushi (2020) and Shankar and Jebarajakirthy (2021) suggest that customers' limited digital financial knowledge necessitates a visit to branch banks for advice and guidance to enable them to make informed evaluations for rational decision-making.

Accordingly, the results of this study provide a distinctive perspective on mobile banking for customers in low-income countries. While research in developed and major emerging economies has focused on the convenience of mobile banking apps and their operations for customers with a better understanding, this study is specifically relevant to developing countries whose customers have limited knowledge of mobile banking functionality. The findings of the study revealed that mobile banking adoption in developing countries is significantly influenced by access convenience, transaction convenience, and possession/post-possession convenience. This aligns with the expectations of the people in developing countries towards the adoption of new technologies (World Bank, 2022). In developing countries, where the majority of the population is less informed about mobile banking operations, quick access to mobile banking services, smooth transaction flow, and timely possession of services are preferred. In the event of any interruptions, the availability of online easy-to-understand steps is crucial in addressing failed mobile banking performances. A convenient mobile banking system can aid in reducing the adoption divide globally and create a shift in developing countries from costly traditional branch banking to efficient mobile banking (Shankar and Rishi, 2020). Developed countries often advocate for mobile banking as a convenient mode of financial operations for their citizens. However, for developing nations, convenient mobile banking can also serve as a mechanism to increase adoption rates and



promote inclusive financial development to eradicate poverty. This trend is primarily driven by the need to provide basic financial services to the unbanked population, which is a critical component of financial inclusion efforts. In this context, mobile banking has emerged as a powerful tool that can significantly enhance financial access and inclusion, particularly in remote and underserved areas. As such, mobile banking is increasingly being recognized as a key driver of economic growth and development in developing countries. Therefore, strengthening convenience in technological adoption improves information accessibility, promotes innovative research, and creates balanced competition between developed and developing countries (United Nations, 2018). On a similar note, developing countries still need strong and well-distributed branch banking systems that will enable people to consult whenever there is a need to evaluate the available financial products and services (Jebarajakirthy and Shankar, 2021). This is because the study results revealed that evaluation and search convenience did not have a significant influence on customers' mobile banking adoption intentions. These branch banks would assist customers in searching for detailed information, which is relevant in developing countries where people have not built significant capacity to understand current advances in mobile banking technology. However, this may be of minimal importance in developed countries where people have a better interaction and understanding of advances in mobile banking operations.

### **5.1 Theoretical**

This study is a valuable addition to the limited research available on online convenience in the banking sector, particularly in low-income economies. The findings shed light on the online convenience dimensions that financial institution managers in countries like Uganda should prioritize. This is especially important given the unique characteristics of mobile banking customers in low-income nations, who often have limited knowledge of mobile banking operations compared to those in developed and major emerging economies. It is noteworthy that the online convenience dimensions explored in this study can be applied to other fields such as insurance and education to enhance understanding. Additionally, the study's results can assist central banks of low-income countries in developing mobile banking regulations that prioritize customer experience. Furthermore, this study contributes to the literature on the usability, efficiency, and effectiveness of mobile banking, which is essential for motivating customers to adopt this remarkable innovation. Most significantly, the study provides a geographical expansion of the mobile banking and online convenience literature (Duarte et al., 2018; Shankar and Rushi, 2020; Jebarajakirthy and Shankar, 2021).

### **5.2 Managerial Implications**

Financial institutions are increasingly investing in financial technology to better serve their customers. However, these institutions must pay close attention to the user experience of their mobile banking platforms and provide relevant information online. By investing in technology that prioritizes convenience for customers, financial institutions can offer easy access to banking services at any time and from anywhere. This approach is supported by research in the banking sector. To ensure successful adoption, financial institutions must focus on creating user-friendly mobile banking platforms. All necessary information should be readily available online so that customers can make informed financial decisions when using these services. The study identifies ease of access, transactions, possession, and post-possession conveniences as significant factors in online convenience that will benefit customers. However, it is also important for banks to maintain physical branches where clients can receive assistance in navigating new products and services. In addition to prioritizing customer satisfaction, financial institutions should also strive for customer delight within the mobile banking ecosystem. This can be achieved through a user-friendly interface that offers one-click solutions and strategies for maintaining the customer's positive experience. Other essential requirements include clear links to FAQs, no fees for unsuccessful transactions, and up-to-date online applications to avoid system crashes. By prioritizing user experience and convenience, financial institutions can provide customers with a seamless mobile banking experience that saves time and effort.

## **6. LIMITATIONS AND AREAS OF FURTHER RESEARCH**

The landscape of mobile banking is constantly shifting with the emergence of new technologies. It is important to note that this study may not fully capture the evolving trends in consumer behaviour, as it is a cross-sectional analysis and mobile banking adoption is a rapidly changing area within the field of behavioural finance. Nonetheless, this study sheds light on the convenience factor when it comes to customer adoption in low-income economies, an area that has been under-researched. Moving forward, a longitudinal study would be necessary to establish cause-and-effect relationships. Additionally, the sample size of 274 Ugandans is relatively small, given the country's large number of mobile banking users. Future research should aim for larger, more comparative samples. This study is the first of its kind to explore how online convenience dimensions impact the adoption of mobile banking in the Sub-Saharan African region, making it a significant contribution to the field. To further advance research in this area, future studies could explore such mediators and moderators as perceived usefulness, relative advantage, perceived utilitarian and hedonic values, trust, habits, and adaptability.

Theories like Technology Adoption, Innovation Diffusion, cognitive-motivational-relational, and Planned Behaviour could also be considered, rather than the traditional stimulus-organism-response approach.

## **7. CONCLUSION/ RECOMMENDATION**

According to Shankar and Rushi (2020), banking institutions need to embrace technological modernization to provide customers with simple, timely, and economical services. To increase customer delight and value discovery within the banking sector, banks should strive to make their mobile banking systems as convenient as possible. This study identifies access convenience, transaction convenience, and possession/post-possession as the primary dimensions of online convenience that have a significant positive impact on customers' intention to adopt mobile banking. The ease of use associated with mobile banking positively influences customers' intention to adopt and utilize mobile money products and services. Furthermore, the global coverage, pleasant interface, and opportunities for fun and enjoyment with family members, colleagues, and religious fellows motivate customers to embrace mobile banking.

As customer complaints about mobile banking continue to rise, it becomes increasingly important to understand the user interface, processing time, and occurrence rate of unsuccessful transactions. Although mobile banking has the potential to provide customer satisfaction, value discovery, and delight, it has not yet reached its full potential. Therefore, financial institutions must exercise caution and invest time, energy, and resources to ensure that customers can enjoy access convenience, transaction convenience, and possession/post-possession convenience. By doing so, they can increase customers' intention to adopt mobile banking, leading to greater adoption and utilization of mobile banking.

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