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MAKERERE UNIVERSITY BUSINESS SCHOOL

PERCEIVED EASE OF USE, PERCEIVED USEFULLNESS, TRUST AND ADOPTION OF MOBILE BANKING BY CUSTOMERS OF COMMERCIAL BANKS IN UGANDA

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PLAN A

NOVEMBER, 2023

DECLARATION

I, Namatovu Caroline Awori declare that this dissertation is my original work and that it has never been published, presented, and or submitted to any institution for any ward.

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APPROVAL

This is to certify that this dissertation has been submitted for examination with our guidance as Makerere University supervisors.

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DEDICATION

This piece of work is dedicated to my parents Jan Peter Kruiger and Marleen Kruiger.

My late mother Teddy Nangirinya Kintu, my husband Wadada Davidson Bob and my children Derrick, Teddy, Christebel and Queen Lorna Wadada.

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I also thank to all the respondents who participated in questionnaire answering. Their views led to quantitative and empirical findings upon which references could be drawn from the study.

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LIST OF ABBREVIATIONS

BOU	Bank of Uganda
CVI	Content Validity Index
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
SPSS	Statistical Package for Social Sciences
STP	Straight Through Processes
TAM	Technology Adoption Model

ABSTRACT

The study focuses on perceived ease of use, perceived usefulness, trust and adoption of mobile banking by customers of commercial banks in Uganda. The specific objectives include; assess the relationship between perceived ease of use and adoption of mobile banking, examine the relationship between perceived usefulness and adoption of mobile banking, determine the relationship between trust and adoption of mobile banking and to establish the predictive potential of perceived ease of use, perceived usefulness and trust on adoption of mobile banking. The study used cross sectional survey design with a quantitative approach. A population of 20,000 customers was used and unit of inquiry were active users on mobile banking from these commercial banks. Out of 377 issued out questionnaires, 338 of them were returned fully filled making 89.7%.

The key findings show that perceived ease of use influences adoption of mobile banking; perceived usefulness influences adoption of mobile banking; Trust and adoption of mobile banking are positively associated and the predicative power of perceived ease of use, perceived usefulness, and trust is 63.9% of the variations in adoption of mobile banking by customers in commercial banks.

The study recommends that; to maintain and enhance mobile banking adoption, banks should prioritize user feedback and iterative app development for improved ease of use while investing in strong security measures to build and maintain customer trust. This includes regular updates based on feedback, user-friendly features, and robust security measures like encryption and multi-factor authentication. Transparent communication about security and the provision of educational resources within the app further bolster trust. These efforts collectively contribute to a more user-friendly and secure mobile banking experience, encouraging adoption and customer confidence.

CHAPTER ONE
INTRODUCTION

1.0 Background of the Study

Adoption of mobile banking is defined as demonstrable willingness to employ mobile banking technology for the tasks it has been designed to support (Fadila, Sastrawinata, Badri, Anggoroseto, bin Ahmad, & Ankus, 2022). According to Fadila et al (2022) adoption of mobile banking involves knowledge awareness, frequency of use and customer's interest. Mobile banking is important because it allows customers to conveniently access various banking features through their mobile devices (Owusu Kwateng et al., 2019). Mobile banking helps commercial banks to reduce on long lines in the banking halls and stationery costs. Mobile banking offers a wide array of services, including information retrieval, account management, bill payments, and fund transfers (Raza et al., 2019). However, there is low adoption of mobile banking globally based on studies conducted in Germany (Hassan, 2021) and China (Siyal, 2019). This is the same situation in Africa like Morocco, Egypt, and Algeria, which have had low adoption of mobile banking (Malaquias & Hwang, 2019; Raza et al., 2019; Singh & Srivastava, 2018). In Uganda there is very low adoption rates as shown by the Deposit Protection Fund of Uganda's report (2022) indicates that while there was a slight upward trend in mobile banking users from 2021 to 2022, the adoption rate of mobile banking in Uganda remains relatively low at 11.5% compared to the total number of account users (Financial Stability Review Report 2022).

Several interventions like technological skills trainings, the formulation of effective strategies to encourage customers to embrace mobile banking (Malaquias & Hwang, 2019), have been

put in place to ensure adoption of mobile banking. However, a few customers have managed to adopt and use mobile banking. This could be attributed to perceived ease of use, perceived usefulness, and trust not efficient.

There are scholars that have attempted to examine the concept of adoption of mobile banking like a study by Lule, and Mwololo (2012) in Uganda explored adoption of mobile banking using qualitative approach however, this study did not cover customers of commercial banks but rather used banking staff as the unit of inquiry ~~to answer the set of questions~~. Other studies done by Lule et al., (2012); Fadila et al, (2022; and Cruz, Barretto, et al., (2010) on adoption of mobile banking have been conducted in countries outside Uganda. like a recent study in Kenya on mobile banking adoption at KCB Bank (Sachombe, 2017) recommends that similar studies be carried out in other banks to compare the findings and make generalized conclusions. The study will also respond to calls by previous scholars for more research in the adoption of mobile banking.

Theoretically, this study used the TAM proposed by Davis (1989) to explore the combination of perceived ease of use, perceived usefulness, and perceived trust on the adoption of mobile banking. This model has been widely employed in the banking industry (Aziz et al., 2019; Jamshidi and Hussin, 2016; Priya et al., 2018). However, considering the intricacies involved in the process of technology adoption, scholars (Malaquias and Hwang, 2019; Raza et al., 2019) suggest the importance of continued efforts to systematically investigate the phenomenon of mobile banking adoption.

1.2 Statement of the Problem

In Uganda, there are 14 million bank accounts as per Deposit protection fund of Uganda report (2022). This number has made every commercial bank in Uganda to have a goal of ensuring their customers use mobile banking because of its various advantages to both the bank and the customers such as; less time is spent in the bank by customers, customers can access their bank account anytime, banks reduce on paper work and congestion in the banking halls (Bank of Uganda Annual Report, 2020; Yiga & Cha, 2016). Despite, these advantages by March 2021 Uganda had 1,130,000 people using mobile banking (Financial stability review report, 2022; Bank of Uganda Annual Report, 2021); by March 2022 Uganda had 1,530,000 customers using mobile banking (Financial stability review report 2022). This trend shows a slight increase in the number of people using mobile banking between 2021 to 2022 however compared to 14 million account users, this accounts for 11.5% adoption rate of mobile banking in Uganda (Financial stability review report 2022). Also, the number of active users on mobile banking decreased by 4.8% from 1.24 million users in June. 2021 to 1.18 million users in June 2022 (BoU Annual Financial Inclusion Indicators report, 2022). Mobile banking adoption in Uganda is still low compared to neighboring countries like Kenya and Tanzania (Financial stability review report, 2022). According to Financial Stability report of 2019 and 2021 Kenya had a 25.3% and 34.4% adoption rate respectively. In comparison with West Africa, the adoption rate in Uganda is far below; for instance, in Benin, Togo, Senegal, Burkina Faso, Cote d`luoire` the adoption rate is 74.5% 71.9%, 67%, 68.4% and 70.4% respectively (Financial stability review report 2022). The low adoption rates in Uganda explained by perceived ease, perceived usefulness and trust. The low adoption rates could lead to banks incurring more costs in terms

of employing more staff yet the technological investment in mobile banking has been done to reduce such.

1.3 Purpose of the study

The purpose of the study was to examine the relationship between perceived ease of use, perceived usefulness, trust and adoption of mobile banking by customers of Commercial banks in Uganda.

1.3.1 Specific Objectives

i. To assess the relationship between perceived ease of use and adoption of mobile banking by customers of commercial banks in Uganda.
ii. To examine the relationship between perceived usefulness and adoption of mobile banking by customers of commercial banks in Uganda.
iii. To determine the relationship between trust and adoption of mobile banking by customers of commercial bank in Uganda.
iv. To establish the predictive potential of perceived ease of use, perceived usefulness and trust on adoption of mobile banking by customers of commercial bank in Uganda.

1.3.2 Research Questions

i. What is the relationship between perceived ease of use and adoption of mobile banking by customers of commercial banks in Uganda?
ii. What is the relationship between perceived usefulness and adoption of mobile banking by customers of commercial banks in Uganda?
iii. What is the relationship between trust and adoption of mobile banking by customers of commercial bank in Uganda?

iv. What is the predictive potential of perceived ease of use, perceived usefulness and trust on adoption of mobile banking by customers of commercial bank in Uganda?

1.4 Scope of the study

1.4.1 Geographical scope

The study focused on commercial banks located in Kampala Capital City Authority. Kampala Capital City Authority was selected because it was the headquarters of all these banks with customers using mobile banking (Bank of Uganda Annual Report 2022), it was the busiest operational area in terms of mobile banking users as opposed to any other geographical area (BoU Annual Report, 2022).

1.4.2 Subject scope

The study was limited to perceived ease of use, perceived usefulness, trust and adoption of mobile banking by customers of selected commercial banks in Uganda. Perceived ease of use, preceived usefulness, and perceived trust was the independent variables while adoption of mobile banking was dependent variable. These variables were further conceptualised in figure 1.

1.4.3 Time scope

This study was carried out within one year hence adoption of cross-sectional design.

1.5 Significance of the study

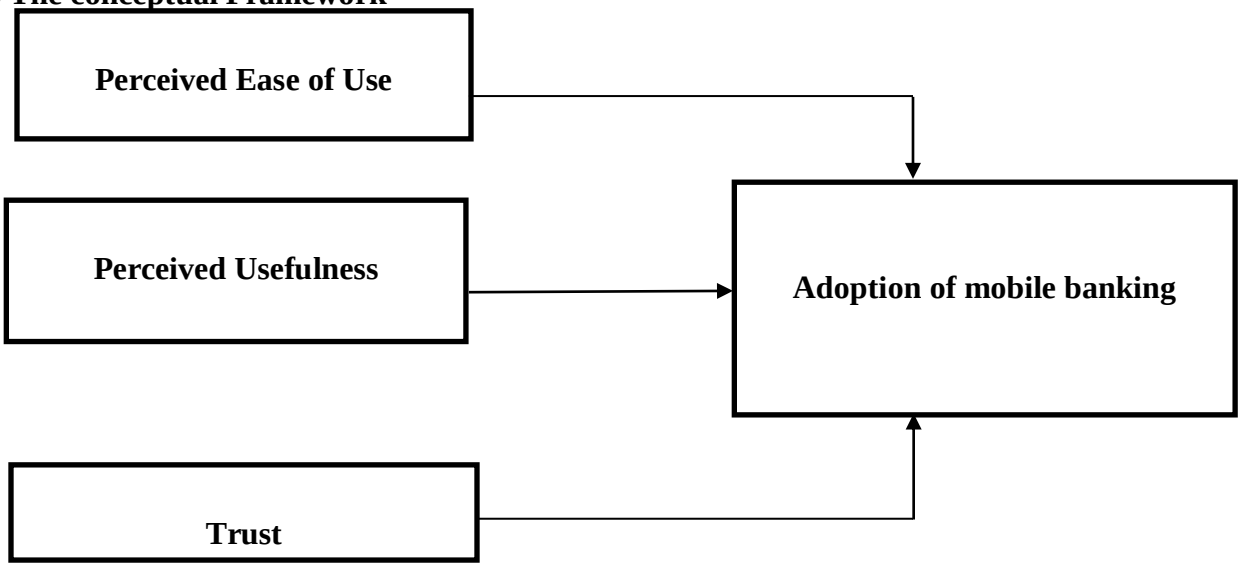
The study helps policy makers, regulators and managers in understanding challenges of using mobile banking by customers and derive solutions to mitigate such challenges to ensure that there exist improvement in service delivery.

The study adds on the existing research for academicians in relation to perceived ease of use, perceived usefulness, trust and adoption of mobile banking.

The study intended to show the importance of adoption of mobile banking as central player in improving financial inclusion in the country.

The study enables the researcher to accomplish the master's program leading to the award of Master of business administration of Makerere University.

1.6 The conceptual Framework



Source: Jamshidi and Hussin, (2016); Venkatesh et al., (2003); Bongomin and Ntayi, (2020); Baganzi and Lau (2017); Luo et al. (2010); Alalwan *et al.,* (2018); Al Tarawneh, Nguyen, Yong, & Dorasamy, (2023); Ibrahim and Sadiq (2012).

Figure 1.1: Conceptual model of Perceived ease of Use, Perceived Usefulness, Trust and Adoption of Mobile Banking

1.6.1 Explanation of the conceptual frame work

The independent variables were perceived ease of use, perceived usefulness and trust. Adoption of mobile banking was the dependent variable. In this study, it was believed that perceived ease of use, perceived usefulness and trust could cause variations in adoption of mobile banking. Perceived ease of use was measured using variables such easy to learn, user

friendly and interactive. Perceived usefulness was measured by variables such as benefits, effectiveness and efficiency. Trust was measured by variables such as ability and integrity. Adoption of mobile banking was measured using questions such as; I have been using mobile banking services confortably. I access mobile banking services any time of the day. I use mobile banking services all the time to do different kinds of banking transactions. I encourage my friends to use mobile banking services. I am aware this bank offers mobile banking services. I am familiar with mobile banking. I am willing to continue using mobile banking.

All the study variables were measured using a uni-dimensional approach as adopted from previous scholars. For instance, trust was measured using items adopted for Baganzi and Lau (2017); Luo *et al.* (2010); Bongomin and Ntayi, (2020), perceived ease of use and perceived usefulness were measured using items adopted from Jamshidi and Hussin, 2016; Venkatesh *et al.,* (2003) whereas adoption of mobile Banking was measured using items adopted from Al Tarawneh et al, (2023); Ibrahim and Sadiq (2012).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presented highlights of the reviewed literature regarding the study variables. It showed how this research was related to the existing body of knowledge and identified the gaps existing in the current body of knowledge.

2.1 Theories

2.1.1 Technology Acceptance Model

TAM is one of the most extensively used models in information systems research, partly because of its simplicity and understandability (King & He, 2016). It examines the impact of technology on human behaviour. The model was originally proposed by Davis (1989) and has its roots in cognitive psychology. It was adapted from a psychological theory, a theory of reasoned action (Fishbein and Ajzen, 1975) that explains human behaviour in accepting an information system (Hu et al., 1999). Davis (1989) articulated that the intention of using an information system drives the actual use. The perceived ease of use (PEOU), trust and perceived usefulness (PU) explain the intention of a user to use the system. PU and PEOU are defined as “the degree to which a person believes that using a particular system would enhance his or her performance” and “the degree to which a person believes that using a particular system would be free of effort”, respectively. The adoption of information systems and services such as mobile banking has been extensively explained by using TAM and its new, advanced extensions, such as the TAM2 (Venkatesh and Davis, 2000), TAM3 (Venkatesh and Bala, 2008) and the unified theory of acceptance and use of technology (Venkatesh et al., 2003).

TAM and TAM2 have received considerable attention as predictors of the acceptance of information systems (Sun and Zhang, 2016). Comparative studies have also confirmed the supremacy of TAM over other models and theories on behavioral intention to adopt mobile banking (Mathieson, 2015). The major element affecting adoption of mobile banking as an information system is the trust which is affected by PEOU and PU, which are the major beliefs of a user. Characteristics of the system or external factors affect the cognitive factors PEOU and PU (Davis, 1989).

The Technology Acceptance Model (TAM) is a widely used theoretical framework that helps to understand user acceptance of technology also in relation to understanding mobile money services acceptance and use. It has been used to examine the adoption of many technologies, such as mobile money services (Ekow Kelly & Palaniappan, 2022). TAM suggests that the attitudes of potential users towards the technology are the most important determinants of acceptance and the model posit that users' behavioural intentions to use technology are determined by their belief of how useful the technology is and how easy it is to use (Kelly & Palaniappan, 2023).

Using TAM help mobile money service providers to understand their users' technology acceptance and usage behaviour. Measuring users' perceived usefulness and ease of use, mobile money service providers should design better products and services that meet the needs of their users ((Kelly & Palaniappan, 2023). Additionally, TAM help mobile money service providers to identify factors that influence the adoption and use of the services. This helps to identify any barriers to adoption and use, such as lack of trust security, and privacy also play a

major role in determining users' acceptance (Ekow Kelly & Palaniappan, 2022; Lim & Lee, 2014).

2.2 Concepts

2.2.1 Perceived ease of use

Perceived ease of use refers to an individual's perception of the effortlessness involved in using a specific technology or system (Cudjoe et al., 2015; Davies, 1989; Hanafizadeh et al., 2014). Püschel et al. (2010) share a similar perspective, describing perceived ease of use as the belief that using a particular innovation would be effortless for consumers. This perception of ease of use has a significant impact on perceived usefulness, as noted by Mathieson (1991). The Technology Acceptance Model (TAM) is a primary theory that utilizes perceived ease of use to predict the adoption of new information technologies by individuals. In essence, perceived ease of use relates to a user's judgment of whether performing a specific technical task would require mental effort (Rouibah et al., 2017).

The Technological Acceptance Model incorporates the ease of use of technology as a significant factor that influences its adoption (Davis, 1989; Luarn & Lin, 2005; Venkatesh & Davis, 1996, 2000; Wang & Liao, 2007). This factor has a positive correlation with the adoption of mobile banking transactions. Perceived ease of use is defined as the level of ease associated with using a system, which plays a crucial role in encouraging customers to accept and adopt new systems (Zacharis, 2012). According to Carlos Roca et al. (2008), perceived ease of use is a crucial factor for the effectiveness of online trading systems, while Choraria (2012) highlights that ease of use is essential for businesses operating online.

According to Du et al. (2012), a company's innovativeness directly contributes to enhancing perceived ease of use (PEOU). This, in turn, influences consumers' decision to adopt mobile banking (Montazemi and Saremi, 2018). In this study, we define perceived ease of use (PEOU) as users' overall perception of the convenience of using a mobile system through their mobile phones to access mobile banking services. Previous research has consistently identified PEOU as a key factor for examining and evaluating user acceptance of specific technologies. Revels et al. (2010) further highlights that PEOU plays a significant motivational role in consumers' technology usage.

2.2.2 Perceived usefulness

Perceived usefulness refers to the extent to which an individual believes that using a particular technology or innovation would improve his/her job performance (Alalwan et al., 2016; Davis, 1989; Hanafizadeh et al., 2014; Liao et al., 2012; Ramdhony and Munien, 2013). The main theory that uses perceived usefulness as an antecedent of the adoption of new information technologies by individuals is the Technology Acceptance Model (TAM) by Davis (1989).

Jamshidi and Hussin (2016) argue that perceived usefulness suggests how effective the technology fulfills the needs of the adopter. Past studies related to technology adoption have confirmed the validity and reliability of this construct (Jamshidi and Hussin, 2016; Priya et al., 2018). Malaquias and Hwang (2019) insist that perceived usefulness also refers to the benefit offered by the technology. In a similar vein, other scholars (Wallace and Sheetz, 2014) believe that perceived usefulness is an individual’s trust that a certain technology could upsurge his or her need. The perceived usefulness of technology is also related to its value that is a relative comparison between procurement costs, compared to the benefit offered (Suhartanto & Leo,

2018). In mobile banking, the more the users perceive the value of mobile banking, the more their intention to adopt. On the contrary, if mobile banking is perceived as low value, then it is less likely that the technology will be adopted.

2.2.3 Trust

Trust can be defined as the willingness to make one vulnerable to actions taken by a trusted party based on the feeling of confidence or assurance (Gefen, 2000). Mayer et al. (1995) defined trust as the "trustor's intention to take a risk and proposed the trustor's perception about a trustee's characteristics". Masrek et al. (2012) defined trust in mobile banking as "the belief that allows individuals to willingly become vulnerable to the bank, the telecommunication provider, and the mobile technology after having the banks, and the telecommunication provider's characteristic embedded in the technology artefact". Trust thus plays a significant role in the adoption of mobile banking, helping customers overcome the fears of security/privacy risks and fraudulent activities in the mobile environment (Gu et al., 2009; Zhou, 2011; Afshan & Sharif, 2016). Trust is enhanced by the security mechanisms provided by mobile banking services. Customers are more likely to trust the new service if adequate security is provided for their transaction data.

2.2.4 Adoption of Mobile banking

Mobile banking (m-banking) is a service that allows customers to conduct banking transactions via mobile phones or smart phones (Fadila et al, 2022). It is one of the electronic banking or internet banking services. Mobile banking services can be used using existing services such as USSD (Unstructured Supplementary Service Data) or through applications that can be downloaded and installed by customers (Fadila et al, 2022). This mobile banking service is

mobile or data is used wherever and whenever desired. Mobile banking services allow customers to check balances and history of banking transactions, pay for financial transactions from person to person, provide information on the location of the nearest ATM or bank branch office, provide reports and summaries of financial activities according to customer requests, inform financial transaction activities and provide payment services, electronic billing or other multi payments (Fadila et al, 2022).

The adoption of mobile banking services in Africa remains notably lower when compared to mobile operator-led transfer services facilitated through mobile phones (Lule, Mwololo, & Timothy, 2012). Researchers from the past have raised questions about whether the banking sector truly comprehends the needs and behaviors of individuals who are not yet part of the banking system (Lule et al., 2012). Notably, a prevailing observation is that consumers tend to approach new technology with caution, a sentiment well-documented in literature that delves into users' initial resistance towards technological progress and evolution (Fadila et al, 2022). Despite a swift expansion of mobile services throughout the past decade, the utilization of mobile transactions, encompassing both mobile payments and banking, has not reached the anticipated levels (Cruz, Barretto, et al., 2010).

A recent study in Kenya found out that technology, social, cultural and economic factors influence mobile banking adoption at KCB Bank (Sachombe, 2017). The study recommends that similar studies be carried out in other banks to compare the findings and make generalized conclusions. Most of m-banking and m-payment services providers in Africa reported that most barriers to their growth related to; uncertainties over customer adoption, which is common in

an early phase of market development and secondly specific regulatory issues such as remote customer due to diligence requirements and access to the payments system (Porteous, 2006).

There is a perception that mobile banking can spread fast amongst people. From observation in Europe and the United States, markets witness the limited use of mobile payments going contrary to the expectations (Porteous, 2006). Among bigger risks towards the development of mobile banking is for example attributed to the fragmentation of European market creating unviable proprietary platforms (Porteous, 2006). Mobile payments are far more spread out in Asia than in the US and Europe, reaching early ‘break out' stage in Korea and Japan (Fadila et al, 2022). It is suggested that for mobile banking to take off there must be a large player who controls it and (Cruz, Neto, et al., 2010; Fadila et al, 2022). This study embarked on finding out whether for mobile banking adoption to take off there must be a large player who controls it.

2.3 Empirical Literature

2.3.1 Perceived ease of use and adoption of mobile banking

Perceived ease-of-use is a well-established construct in TAM model, which refers to the user feeling of free from trouble when using technology (Ratten, 2015). The perceived ease-of-use concept also indicates an adopters’ trust that in using a technology will not make him or her in trouble (Wallace & Sheetz, 2014). The user ‘perceived ease-of-use on a technology means that its operation is not complicated and uses minimum efforts, mentally and physically. In other words, a technology is considered as stress-free to operate if the users believe that they are capable of operating the technology without any difficulties. A person inclines to accept less complex technology compared to a complicated one. If a potential user perceives that a

technology is not easy to use, the probability of his or her adopting the technology is small even if the technology is reasonably priced.

Past research studies have confirmed that the perceived ease-of-use is a valid and reliable construct when tested in many technology contexts and supported the notation of its predictive power on user technology adoption (Priya et al., 2018; Singh & Srivastava, 2018; Wallace & Sheetz, 2014). Skill and knowledge needed to operate a technology are important factors for evaluating the technology. To use technology such as mobile banking, users have to know well on how to use it to fulfill his or her needs (Ratten, 2015).

Venkatesh et al. (2003) maintains that the process of learning prior to the adoption of a technology is affected by the accessibility of information regarding the technology. The availability of such information will influence a potential user as to whether he or she will adopt the technology (Ratten, 2015). Mobile banking, even though not a sophisticated technology, demands a skillful user to operate it to perform as expected. As many bank customers are less educated and aging (Suhartanto et al., 2018), it is anticipated that for these customers, mobile banking technology is not simple. For these customers, their mobile banking adoption is unlikely as the technology is considered as less useful. Because of a small keypad and screen size, the browsing and use of some services on a mobile banking device become tedious. Thus, a user-friendly interface with suitable graphical layouts and content, visible interface and clear commands are required to encourage users to adopt mobile banking (Jamshidi and Hussin, 2016; Raza et al., 2019). In other words, it is expected that there is a positive association between perceived ease-of-use and intention to use, and perceived the usefulness of mobile banking:

2.3.2 Perceived usefulness and adoption of mobile banking

Jamshidi and Hussin (2016) argue that perceived usefulness suggests how effective the technology fulfills the needs of the adopter. Past studies related to technology adoption have confirmed the validity and reliability of this construct (Jamshidi and Hussin, 2016; Priya et al., 2018). Malaquias and Hwang (2019) insist that perceived usefulness also refers to the benefit offered by the technology. In a similar vein, other scholars (Wallace and Sheetz, 2014) believe that perceived usefulness is an individual's trust that a certain technology could upsurge his or her need. The perceived usefulness of technology is also related to its value that is a relative comparison between procurement cost, compared to the benefit offered (Suhartanto and Leo, 2018). In mobile banking, the more the users perceive the value of mobile banking, the more their intention to adopt. On the contrary, if mobile banking is perceived as low value, then it is less likely that the technology will be adopted.

The user's lifestyle is another factor that influences user assessment of the technology benefit. Ratten (2015) notes that a user will perceive that a technology is valuable if the user believes that the technology matches their lifestyle. A person will also consider adopting a technology if the technology can effectively assist him or her to fulfill needs (Davis et al.,1989; Malaquias and Hwang, 2019). In mobile banking, the effectiveness of technology is linked to a comparison between services with mobile technology and services without mobile technology (with conventional services alone). If mobile banking services perform as expected, the adoption behaviour is likely; in contrast, if the service performance is not as expected, the intention to adopt will be unlikely. Past studies examining this construct in various

technologies uncover that perceived usefulness is the main factor for adopting a technology (Ratten, 2015; Singh and Srivastava, 2018)

Perceived Usefulness (PU) is defined as the degree to which a person believes that using a system would enhance or increase his or her performance (Glavee-Geo, Shaikh & Karjaluoto, 2017). PU allows users to perform tasks faster and to increase work productivity, performance and efficiency (Davis, 1989). The amount of information individuals received from mobile banking is an important factor that influenced adoption of this service. Also, it refers to the benefits that allow users to decide whether to adopt mobile banking in their lives (Gandhi, 2017). Hence, PU is the belief that a user adopts new technology, if the user perceives it as useful (Premkumar, 2008). During the last few years, mobile banking services have been considered effective tools to conduct transactions online as compared to traditional offline transactions (Mortimer, 2015). Mobile banking offers consumers many facilities such as conducting transactions with faster speed, avoiding waiting times, access to services 24/7, information transparency, and convenience (Akturan & Tezcan, 2012; Riquelme & Rios, 2010).

It is well known that usability is a significant quality attributed to mobile phones, and, thus, assessing usability is becoming increasingly important in the mobile phone industry (Heo*et al.*, 2019). On the other hand, PU refers to the extent to which target customers believe that using IT will create significant value for them (Rouibah *et al*., 2017). PU is defined as the degree to which a user believes that using a particular system would enhance his or her job performance, which also positively impacts on the user's intention to use or adopt to a system (Chen *et al*., 2017; Ajzen, 1991). In this study, we define PU as the overall assessment and perception on the part of mobile banker of the usability of his or her phone to adapt to mobile banking. In

addition, different stages have been implemented for adding value through mobile commerce activities, which will ultimately lead to perceived usefulness and advancement (Wang and Lu, 2018). The high rates of usage of mobile devices for mobile banking are very useful for people in different cultures (Matos and Madeira, 2015). Nevertheless, people weigh up the specific outcomes and advantages of mobile usage against the conventional methods of banking. In this case, the perceived usefulness is measured as a uni dimensional variable basing on the items developed by Jamshidi and Hussin, (2016).

Many studies have highlighted on the perceived usefulness as one of the key determinants of mobile banking adoption (Bhatti, 2007; Chan and Gupta, 2007; Kim et al., 2007; Pavlou, 2003; Venkatesh and Morris, 2000). These studies explained that there is a positive association between perceived usefulness and intention of adopting mobile banking. Chau and Lai (2003) investigated the factors contributing to the consumer's adoption of internet banking. They focused perceived usefulness as a significant factor that encourages a positive attitude of customers' towards adopting internet banking services. Some other studies highlighting on mobile banking also established a significant and positive association between the usage and perceived usefulness of mobile banking services (Gefen et al., 2003; Venkatesh and Morris, 2000).

2.3.3 Trust and adoption of mobile banking

Dass and Pal (2015) argue that trust is a psychological expectation that a trusted part will not behave opportunistically. The higher levels of trust in a service provider will therefore lead to greater motivational efforts on the part of the user to adopt mobile banking transactions (Masinde, 2018). According to Bångens and Söderberg, (2018), he argues that a financial system and its actors must be trusted and must act on the principles which promote trust to

customers. Dass and Pal (2015) in their study on the adoption of mobile financial services among the rural unbanked found that villagers preferred channels which can be trusted to conduct monetary transaction. Lee (2005) examined the effect of mobile interactivity on user trust. Mobile interactivity includes user control, responsiveness, personalization, connectedness, ubiquitous connectivity and contextual offer. Chandra et al. (2010) reported that there is a positive and significant effect of trust on user adoption of mobile payment systems. Juwaheer, et al., (2012) found out that both trust and security aspects are deemed crucial factors to explaining internet banking adoption in Mauritius.

Trust is at the heart of all kinds of relationships (Li et al., 2015), which is a crucial determinant of adoption of mobile banking and numerous other fintech services (Hu et al., 2019). It determines users' expectations from their service providers (Xu et al., 2019). It helps in resolving uncertainty about the motives, intentions, and prospective actions of other persons on whom they are reliant (Xu et al., 2019). It also helps in saving on money and reduces the multiplicity of efforts (Shankar et al., 2019). Users' trust in the confidentiality and safety features of mobile banking services by banks increases the acceptance rate of mobile banking [Gu et al., 2019; Li et al., 2015; Sharma and Sharma, 2019]. Kwateng, Atiemo, and Appiah (2019) also stated in their study on mobile banking acceptance and use in Ghana that trust along with habit and price value is a critical determinant of adoption and usage of mobile banking. In our model, we have used the construct of trust for examining its impact on mobile banking adoption.

Trust reflects a willingness to be in vulnerability based on the positive expectations towards another party's future behavior (Mayer et al., 1995). Trust often includes three dimensions:

ability, integrity and benevolence (Benamati*et al*., 2010). Ability means that mobile service providers have enough knowledge and skills to fulfill their tasks. Integrity means that mobile service providers keep their promises and do not deceive users. Benevolence means that mobile service providers will concern users' interests, not just their own interests. This study will therefore adopt these three dimensions in understanding the study phenomenon.

However, compared to the abundant research on online trust, there exists less research on mobile trust. Siau and Shen (2003) conceptualized mobile trust into initial trust and continuous trust, both of which are affected by the factors related to mobile vendor and technology. Trust often includes three dimensions: ability, integrity and benevolence (Benamati et al., 2010). Other scholars like Koufaris and Hampton-Sosa (2015) and Lee (2005) conceptualized trust in terms of trust propensity and Initial trust. As such, this study will adopt measures by Koufaris and Hampton-Sosa and Lee (2015).

Due to the great uncertainty and risk involved in online transactions, trust has received considerable attention in the electronic commerce context. Trust has been found to affect user adoption of various services, such as online news services (Chen and Corkindale, 2018), Internet banking (Flavian et al., 2015), health web sites (Fisher et al., 2018), and mobile shopping (Lu and Su, 2009). Trust includes initial trust and continuance trust. As the first stage of trust development, initial trust is significant for user behavior and various factors have been identified to affect initial trust. The first category of factors is associated with website. Due to the lack of previous experience, users will rely on their perception of website quality to build initial trust (Lowry et al., 2018). Other factors such as website appeal and usability also affect online consumers' initial trust (Hampton-Sosa & Koufaris, 2015).

2.3.4 Perceived ease of use, perceived usefulness and Trust on adoption of mobile banking

There are hardly any studies on the joint effect of perceived ease of use, perceived usefulness and trust on adoption of mobile banking. A study by Keni (2020) found that both perceived ease-of-use and perceived usefulness had a significant role on adoption of mobile banking through trust within the Indonesian e-commerce sector. Moreover, a similar study conducted by Wilson (2019) also found out that both perceived usefulness and perceived ease-of-use positively and significantly intention to adopt mobile banking through trust.

Furthermore, another study conducted by Chinomona (2013) also discovered that both perceived ease-of-use and usefulness significantly affected the consumers' levels of trust toward a system or technology, which ultimately affected and determined the formation of loyalty in the consumers' minds. In this case, it was important for companies to note that in the world of technology, consumers' trust toward any kinds of systems, technologies or features offered by a company would not only be affected by how sophisticated or how far such technologies would increase or affect the consumers' preferences. From the above discourse, this study reasons that perceived ease of use, usefulness and trust can create variations in adoption of mobile banking. Thus, this study intends to fill this gap.

2.4 Conclusion

This study provides empirical data which could be used for policy decision making. The study contributes to academic field by bridging the gap that exists as identified in the reviewed sections of the research objectives. The next chapter provided the methodology upon which this study was based to aid come up with clear results from the field.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter illustrated how the research was conducted. It described the research design, study population, sampling procedure and sample size, data sources and collection instruments, measurement of variables and data analysis.

3.1 Research Design

Research design refers to the way in which the study was planned, conducted, and the procedures and techniques designed to answer the research questions (Snyder, 2019). This study adopted a cross sectional survey design because it enabled the researcher to collect data within a short time. The researcher used quantitative approach that helped to answer to the study objectives. The quantitative approach was used because it provides numerical numbers that can be analysed using SPSS where statistical results were obtained for the study.

3.2 Study Population

The study population was made up of 75,000 customers who were active users of mobile banking in the 25 banks; of these 20,000 were active users of mobile banking in Kampala (Bank of Uganda Annual Report, 2022).

3.3 Sampling Technique

It was not possible to obtain the list of mobile banking customers per bank as this information is considered to be confidential by most banks. The researcher divided the population of 20,000 (in Kampala) customers equally across the 25 banks to give an estimated population of

800 mobile banking customers per bank. The total sample was 377 customers according to Krejcie and Morgan (1970) giving a sample of 15 customers per bank. The customers per bank were selected purposively from the banking halls targeting those that had adopted mobile banking.

3.4 Data source and Data collection procedure

Primary data was obtained through the use of a self-administered questionnaire to the respondents following systematic procedures. Because this study intends to collect quantitative data, a structured questionnaire measured on Likert scale (Likert, 1932) of 5-point scale was used with responses ranging from strongly disagree (1) to strongly agree (5). A Likert scale was used because it helped the researcher to measure the attitudes of the respondents by asking them to respond to a series of statements in terms of the extent to which they agree with them.

3.5 Measurement of the Variables

Majority of the studies on adoption, trust, perceived usefulness and perceived ease of use have considered these variables as unidimensional variables and most of the scholars have used items from prior studies. Perceived ease of use was measured based on the questionnaire items of Jas etc. Giovanis et al., (2019) and Afshan and Sharif (2016). The items they used in their prior researches were; easiness to learn mobile banking; ability to interface with mobile banking applications; easiness in correcting errors encountered while using mobile banking. Perceived usefulness was measured by items such as; effectiveness of mobile banking; efficiency of mobile banking; transaction time incurred using mobile banking (Bongomin and Ntayi, 2020; Malaquias and Hwang ,2016; Lal and Sachdev;2015). Trust was measured using items such as; security while using mobile banking; confidentiality while using mobile

banking; experience from previous transactions on mobile banking as used by Baganzi and Lau (2017); Luo *et al.* (2010);Bongomin and Ntayi, (2020); Malaquias and Hwang (2016); Lal and Sachdev (2015). Adoption of mobile banking was measured by previous scholars using items such as; conformability while using mobile banking; accessibility to mobile banking platforms and services; recommendations to use mobile banking among different bank customers as used by Al Tarawneh, Nguyen, Yong, & Dorasamy, (2023) and Ibrahim and Sadiq (2012). The items as adopted from previous scholars were shown in Table 3.2. These items were modified to suit the local context under study.

Table 3. 1: Variable and sample questions

Variable	**Author**	**Sample questions**
Trust	Baganzi and Lau (2017); Luo *et al.* (2010);Bongomin and Ntayi, (2020); Malaquias and Hwang (2016); Lal and Sachdev (2015).	1) I have no fear for using mobile banking services. 2) I have confidence in mobile banking services and their agents.
Perceived Usefulness	Jamshidi and Hussin, (2016); Venkatesh *et al.*, (2003);Suhartanto et al., (2019); Huh et al. (2009); Giovanis et al., (2019); Gu et al. (2009); Afshan and Sharif (2016)	1) Mobile banking saves my time 2) Mobile banking is a useful mode of doing banking transactions.
Perceived ease of use	Jamshidi and Hussin, 2016; Venkatesh *et al.*, (2003); Suhartanto et al., (2019); Huh et al. (2009), Giovanis et al., (2019); Gu et al. (2009); Afshan and Sharif (2016)	1) Mobile banking can be learned quickly. 2) It is clear to follow all the steps to use mobile Banking.
Adoption of mobile Banking	Al Tarawneh, Nguyen, Yong, & Dorasamy, (2023); Ibrahim and Sadiq (2012).	1) I have knowledge of existence of mobile banking. 2) I often use mobile banking. 3) I have been using mobile banking services for the last 3 years 4) I use mobile banking services all the time to do different kinds of banking transactions 5) Throughout my life, mobile banking has been advantageous to me.

3.6 Reliability and Validity of Instrument

Sekeran (2000) argues that reliability is the extent to which the research instrument contains no variable errors and appears to be inconsistent from observation to observation during any measurement attempt or that vary any time that a given unit is measured using the same instrument. Validity is the extent to which an instrument measures what it is intended to measure (Tavakol & Dennick, 2011). A content validity index was computed to determine if the items in the instrument were valid at threshold of 0.7 as recommended by (Field, 2009) and Sekaran, (2003). All the subject items had a content validity indext of above 0.7. For Reliability (internal consistency and stability) of the instruments was tested using Cronbach's Alpha Coefficient, and all the variables had values above threshold of 0.72 as recommended by Mugenda and Mugenda (2003). The results of validity and reliability were shown in Table 3.2.

Table 3.2: Validity and Reliability Statistics

Subject	No. items	Cronbach Alpha value	Content Validity Index
Perceived ease of use	13	0.91	0.89
Perceived usefulness	13	0.86	0.78
Trust	6	0.82	0.76
Adoption of mobile banking	13	0.86	0.81

Source: Primary data (2023)

3.7 Data Processing and Analysis

Before data analysis, diagnostic tests such as identifying missing values, outliers, normality tests, linearity, and Homogeneity and multi-co linearity of variance was carried out to manage the data (Field, 2009). Statistical treatment of captured primary data involved prior sorting, editing, classifying and coding into a coding sheet, processing and analyzing using a statistical Package for Social Scientist (SPSS) version 29.0. Equally, descriptive and inferential analysis of measurable relationships between study variables was conducted. According to the study objectives, Pearson`s correlation analysis was used for associations and predictor contributions.

A regression analysis also used to determine the predictive power of independent variables on the dependent variable.

3.8 Anticipated Limitations of the study

The study used a cross sectional study yet some issues of perceived ease of use, perceived usefulness, trust and adoption of mobile banking could be addressed using a longitudinal study.

The researcher found it difficulty by the respondents to fill the questionnaire because of their busy schedules. However, the researcher made consistent call backs reminding the respondents to fill the questionnaires. Despite these limitations, the study contributed to existing literature on adoption of mobile banking by commercial banks.

3.9 Ethical considerations

The study was based on respect, informed consent and assured confidentiality with participants. A copy of introductory letter from MUBS Graduate and Research Center was attached to the questionnaire for personal identification and data collection respectively.

CHAPTER FOUR

PRESENTATION OF DATA, ANALYSIS AND INTERPRETATION OF THE RESULTS

4.0 Introduction

This chapter grants the data presentation, analysis and interpretation of the findings. Generally, the study examined the relationship between perceived ease of use, perceived usefulness, trust and adoption of mobile banking by customers of selected Commercial banks in Uganda. The specific objectives were; to assess the relationship between perceived ease of use and adoption of mobile banking by customers of selected commercial banks in Uganda, to examine the relationship between perceived usefulness and adoption of mobile banking by customers of selected commercial banks in Uganda, to determine the relationship between trust and adoption of mobile banking by customers of selected commercial bank in Uganda and to establish the predictive potential of perceived ease of use, perceived usefulness and trust on adoption of mobile banking by customers of selected commercial bank in Uganda.

4.1 Response rate

The study evaluated the response rate of the responses to check if the collected data was sufficient enough to proceed with data analysis.

Table 4.3: Response rate

Total number of questionnaires issued	Actual responses	Response rate
377	338	89.7

Source: Primary data (2023)

Table 4.3 above illustrates that out of 377 issued out questionnaires, 338 of them were returned fully filled making 89.7% response rate. Holbrook et al, (2007), recommends that the response

rate lower than 54% is minimally less accurate. Therefore, since 89.7% was above that, it was considered accurate are hence proceeded with data analysis.

4.2 Background information of the respondents

This research looked at the biodata of the respondents in terms of gender of the respondent, age brackets, highest levels of education obtained and respondent's time worked with the mobile banking. Findings in form of tables are presented below;

4.2.1 Gender of the respondents

This research determined the gender of the respondents looking at male and female. Findings on this variable were presented in table 4.4 below;

Table 4.4: Gender of respondents

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	209	61.8	61.8	61.8
Female	129	38.2	38.2	100.0
Total	338	100.0	100.0	

Source: Primary data

Study findings in table 4.4 above show that most of the respondents 209(61.8%) were male. On the other hand, 129(38.2%) were female. This means that most commercial banks in Uganda are not gender sensitive. This opposes the traditional belief where ladies were thought of to handle money matters better than men.

4.2.2 Age of the respondents

The study aimed at establishing the age bracket of the respondents. Findings on this are presented in table 4.5 below;

Table 4.5: Age of Respondents

Age Brackets	Frequency	Percent	Valid Percent	Cumulative Percent
<30yrs	37	10.9	10.9	10.9
31-40yrs	80	23.7	23.7	34.6
41-50yrs	120	35.5	35.5	70.1
51 and above	101	29.9	29.9	100.0
Total	338	100.0	100.0	

Source: Primary data

Table 4.5 above demonstrates that majority of the respondents 120(35.5%) belonged to 41-50 years. These were followed by the age bracket of 51 years and above who were 101(29.9%), 80(23.7%) were of 31-40 years and 37(10.9%) belonged to 30 years and below age bracket.

4.2.3 Years respondents have been using Mobile Banking

The study examined the years respondents have been using mobile banking in Uganda. Results on this are presented in table 4.6 below;

Table 4.6:Years respondents have been using Mobile Banking

Year		Frequency	Percent	Valid Percent	Cumulative Percent
	<2 years	58	17.2	17.2	17.2
	2-4 years	93	27.5	27.5	44.7
	4 years & above	187	55.3	55.3	100.0
	Total	338	100.0	100.0	

Source: Primary data

Results in table 4.6 above illustrates that 187(55.3%) had been using mobile banking for the period of 4 years and above. 93(27.5%) of the respondents had been using mobile banking between 2-4 years and 58(17.2%) had been using mobile banking for less than 2 years. This means that majority of the respondents had been using mobile banking for a period of 4 years

and above. This implies that they had acquired enough experience to understand why they should use mobile banking.

4.2.4 Highest level of education

The study found out the highest level of education for the respondents in form of certificate, Diploma, Bachelor's Degree and Postgraduate. The findings are presented in table 4.7 below;

Table 4.7: Education Level

Qualification		Frequency	Percent	Valid Percent	Cumulative Percent
	Certificate	37	10.9	10.9	10.9
	Diploma	78	23.1	23.1	34.0
	Degree	121	35.8	35.8	69.8
	Post Graduate	102	30.2	30.2	100.0
	Total	338	100.0	100.0	

Source: Primary data

Study results from table 4.7 above reveal that most of the respondents 121(35.8%) had Bachelor's Degree. Those with Postgraduate 102(30.2%) followed this, next 78(23.1%) had Diplomas and lastly were 37(10.9%) who had certificates. This means that majority of the respondents could write and read well. This implies that this education can help in easy adoption of mobile banking.

4.4 Correlation Analysis

Correlational analysis was carried to examine the relationship between perceived ease of use, perceived usefulness, trust and adoption of mobile banking by customers of selected Commercial banks in Uganda. The study results are interpreted as; 0- 0.19= Very weak, 0.20-0.39=weak, 0.40-0.59=moderate, 0.60-0.79= strong and 0.80-0.99 =very strong (Carole, 2016). Findings about these dimensions are presented table 4.8 below;

Table 4.8: Correlation Statistics

		1	2	3	4
Perceived Ease of Use (1)	Pearson Correlation	1			
	Sig. (2-tailed)				
Perceived Usefulness (2)	Pearson Correlation	.313**	1		
	Sig. (2-tailed)	.000			
Trust (3)	Pearson Correlation	.386**	.122*	1	
	Sig. (2-tailed)	.000	.024		
Adoption of Mobile Banking (4)	Pearson Correlation	.421**	.151**	.789**	1
	Sig. (2-tailed)	.000	.005	.000	
	N	338	338	338	338
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

Source: Primary data

4.4.1 Relationship between perceived ease of use and adoption of mobile banking by customers

Findings in table 4.8 reveal the correlation coefficient between perceived ease of use and adoption of mobile banking by customers as r= 0. 421**, p<.01 at the level of significance 0.000 (2-tailed) given by the Pearson correlation. This implies that there is a moderate positive relationship between perceived ease of use and adoption of mobile banking by customers. A change in perceived ease of use would cause a positive and moderate change in adoption of mobile banking. The findings further imply that when customers find mobile banking easy to learn, make less or no errors, less mental effort required, then adoption of mobile banking by customers is enhanced.

4.4.2 Relationship between perceived usefulness and adoption of mobile banking by customers

Findings in table 4.8 reveal the correlation coefficient between perceived usefulness and adoption of mobile banking by customers is r= .151**, p < 0.01 at the level of significance 0.005 (2-tailed) given by the Pearson correlation. A change in perceived usefulness would cause a positive and very weak change in adoption of mobile banking. The findings also imply

that when customers find mobile banking saving time, saving costs then adoption will be enhanced.

4.4.3 Relationship between trust and adoption of mobile banking by customers

Findings in table 4.8 reveal the correlation coefficient between trust and adoption of mobile banking by customers is r= .789**, p<.01 at the level of significance 0.000 (2-tailed) given by the Pearson correlation. A change in trust causes a positive and strong change in adoption of mobile banking. This further implies that there is a strong positive relationship between trust and adoption of mobile banking by customers. The findings suggest that when more emphasis is put on trust, adoption of mobile banking by customers is enhanced.

4.5 Regression analysis

In order to assess the predictive potential of perceived ease of use, perceived usefulness and trust on adoption of mobile banking by customers of selected commercial bank in Uganda, linear regression analysis was conducted in order to establish how the variation in the independent variables caused a variation in the dependent variable adoption of mobile banking. The results from regression analysis were presented in Table 4.9 and Table 10.

Table 4. 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.799[a]	.639	.636	.49795
a. Predictors: (Constant), Perceived Ease of Use, Perceived Usefulness, Trust				

Source: Field study (2023)

Table 4.9 above show that the independent variables of perceived ease of use, perceived usefulness and trust significantly and positively predict 63.9% of the variations in adoption of mobile banking by customers in commercial banks. The remaining 36.4% could be explained by other factors not considered under this study.

Table 4.10 coefficient of regression

Coefficients[a]							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.579	.256		-2.259	.025		
Perceived Ease of Use	.207	.059	.130	3.484	.001	.779	1.283
Perceived Usefulness	.030	.050	.021	.597	.551	.902	1.109
Trust	.849	.041	.737	20.671	.000	.851	1.175
a. Dependent Variable: adoption							

Source: Primary data

The above results in Table 10 shows that all variable inflation factors (VIF) values are below 5, hence there were no multicollinearity that existed among the study variables (Hair et al., 2019). Trust was a stronger predictor variable of adoption of mobile banking by customers in commercial banks (Beta = .737, sig. = .000), which implied that a unit increase in trust would result to corresponding 73.7% increase in adoption of mobile banking with a significant effect. This is followed by perceived ease of use (Beta = .130, sig. = .001) which implies that a unit increase in perceived ease of use would result in a 13.0% increase in adoption of mobile banking with a significant effect. And lastly the least predictor is perceived usefulness (Beta = .021, sig. = .551) which implies that a unit increase in perceived usefulness would lead to 2.1% increase in adoption of mobile banking and its effect is insignificant.

In the regression table results above, it shows that perceived usefulness was not significant, prompting the researcher to perform a hierarchical regression as shown in Table 4.11 to establish if the influence of each variable on adoption of mobile banking.

Table 4.11 Hierarchical Regression Analysis

Variable Name	Model 1	Model 2	Model 3
(Constant)	2.892	.989	-.579
Perceived usefulness	.151*	.022	.021
Perceived ease of use		.414**	.130**
Trust			.737**
Model summary			
Model F	7.893	62.837	427.271
R	.151[a]	.421[b]	.799[c]
R Square	.023	.177	.639
Adjusted R Square	.020	.172	.636
Std. Error of the estimate	.81679	.75064	.49795
R Square change	.023	.154	.462
Sig F Change	.005	.000	.000
Durbin Watson			1.697

a. Predictors: (Constant), usefulness
b. Predictors: (Constant), perceived usefulness, Perceived ease of use
c. Predictors: (Constant), perceived usefulness, Perceived ease of use, trust
d. Dependent Variable: Adoption of Mobile Banking
Source; Primary data, (2023)

Model 1 indicates that perceived usefulness has a significant and positive effect on adoption of mobile banking by customers (Beta value =.151; R Square change = .023; Sig F change = .005). This means that a unit improvement in the perceived usefulness causes a significant improvement of 2.3% in adoption of Mobile banking. Perceived usefulness was the least contributor to adoption of mobile banking among all the variables that this study looked at as independent variables

Model 2 indicates that perceived ease of use has a significant and positive effect on adoption of mobile banking (Beta =.414; R Square change =.154; Sig F change = .000). This means that a unit improvement in the properties of perceived ease of use causes about 15.4% improvement in adoption of mobile banking. Perceived ease of use was the second contributor to adoption of mobile banking.

Model 3 indicates that trust has a significant and positive effect on adoption of mobile banking (Beta =.737; R Square change = .462; Sig F change = .000). This means that a unit improvement in the trust properties causes about 46.2% improvement in adoption of mobile banking. Trust was the greatest contributor to adoption of mobile banking.

The overall results imply that perceived usefulness singularly influences adoption of mobile banking but doesn't influence in the presence of ease of use and trust.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.0 INTRODUCTION

Chapter five focused on the discussion of findings, conclusion and recommendations. This was based on study objectives which were; to assess the relationship between perceived ease of use and adoption of mobile banking by customers of selected commercial banks in Uganda, to examine the relationship between perceived usefulness and adoption of mobile banking by customers of selected commercial banks in Uganda, to determine the relationship between trust and adoption of mobile banking by customers of selected commercial bank in Uganda and to establish the predictive potential of perceived ease of use, perceived usefulness and trust on adoption of mobile banking by customers of selected commercial bank in Uganda.

5.1 Discussion of the findings

5.1.1 Relationship between perceived ease of use and adoption of mobile banking by customers

The regression results have indicated that perceived ease of use influences adoption of mobile banking by customers. The findings suggest that when customers find the use mobile banking application easy to learn, make less errors, offers a number of services; this will influence the adoption of mobile banking. This finding is in line with Ratten, (2015) who established a positive relationship between Perceived ease-of-use and adoption of mobile banking. According to Ratten, (2015) if a potential user perceives that a technology is easy to use, the probability of his or her adopting the technology on mobile banking is greater and the reverse is true. Scholars

like Jamshidi and Hussin, 2016; Raza et al. (2019) assert that a positive association between perceived ease-of-use and adoption of mobile banking exist and that user-friendly interface and its perceived ease of use with suitable graphical layouts and content, visible interface and clear commands are required to encourage users to adopt mobile banking.

5.1.2 Relationship between perceived usefulness and adoption of mobile banking by customers

The results are discussed from the hierarchical Regression results that have indicated that perceived usefulness singularly influences adoption of mobile banking. The results imply that when users find mobile banking advantageous in terms of saving time and costs, they will adopt. This finding is in line with Jamshidi and Hussin (2016) argue that perceived usefulness suggests how effective the technology fulfills the needs of the adopter. Malaquias and Hwang (2019); Suhartanto and Leo, (2018) argue that in mobile banking, the more the users perceive the value of mobile banking, the more their intention to adopt and use. On the contrary, if mobile banking is perceived as low value, then it is less likely that the perceived usefulness will less likely to occur.

5.1.3 Relationship between trust and adoption of mobile banking by customers

The regression results have indicated that trust significantly influence adoption of mobile banking. Findings revealed that trust has a strong positive relationship with adoption of mobile banking by customers. The findings imply that when more emphasis is put on trust, adoption of mobile banking by customers is enhanced. This finding is in line with Dass and Pal (2015) who argue that trust is a psychological expectation that a trusted part will not behave opportunistically. The higher levels of trust in a service provider will therefore lead to greater

motivational efforts on the part of the user to adopt mobile banking transactions (Masinde, 2018). According to Bångens and Söderberg, (2018), he argues that a financial system and its actors must be trusted and must act on the principles which promote trust to customers. Kwateng, Atiemo, and Appiah (2019) also stated in their study on mobile banking acceptance and use in Ghana that trust along with habit and price value is a critical determinant of adoption and usage of mobile banking.

2.3.4 Predicative power of Perceived ease of use, perceived usefulness and Trust on adoption of mobile banking

Findings revealed that a strong positive predicative power exist between perceived ease of use, perceived usefulness and trust on adoption of mobile banking. This is in line with a study by Keni (2020) who found that perceived ease-of-use, perceived usefulness, and trust had a significant role on adoption of mobile banking in the Indonesian e-commerce sector. Moreover, a similar study conducted by Wilson (2019) also found out that both perceived usefulness and perceived ease-of-use positively and significantly intention to adopt mobile banking through trust. Another study conducted by Chinomona (2013) discovered that both perceived ease-of-use and usefulness significantly affected the consumers' levels of trust toward a system or technology, which ultimately affected and determined the formation of loyalty in the consumers' minds.

5.2 Conclusion

The study reveals valuable insights into the factors influencing the adoption of mobile banking by customers. The study indicates the importance of perceived ease of use, usefulness and trust in the adoption of mobile banking. Management in commercial banks should prioritize

improving the user-friendliness of mobile banking applications and focus on trust-building efforts to enhance adoption rates. These factors (perceived ease of use, perceived usefulness, and trust) collectively account for a significant portion of the variation in adoption, highlighting their critical role in shaping customer decisions.

5.3 Recommendations

To maintain and enhance the perceived ease of use, banks should establish mechanisms for collecting customer feedback on their mobile banking services. Regularly update the app based on this feedback to address any issues and incorporate new features or improvements that make it even more user-friendly. An iterative approach to app development can help maintain and enhance adoption rates over time.

To bolster trust, commercial banks should invest heavily in security measures for their mobile banking services. This includes robust encryption, multi-factor authentication, and regular security audits. Banks should communicate these security measures clearly to customers to reassure them that their financial information and transactions are safe.

Given that perceived ease of use is a significant predictor of mobile banking adoption, it is essential for commercial banks to focus on improving the user experience of their mobile banking applications. This can include simplifying the interface, providing clear instructions, and offering user-friendly features. Conducting usability testing and obtaining user feedback can help identify areas for improvement. Banks should invest in designing and maintaining mobile banking apps that are intuitive and easy for customers to navigate, reducing any barriers to adoption.

Trust plays a crucial role in predicting mobile banking adoption. To build and maintain trust, banks should prioritize security and transparency. They should implement robust security measures to protect customers' sensitive information and transactions. Additionally, clear and transparent communication about the security measures in place can help reassure customers. Offering educational materials about online security and privacy within the mobile app can also enhance trust. Moreover, providing excellent customer support and resolving any issues promptly can further strengthen the trust customers have in the bank's mobile banking services.

5.4 Limitations of the study

The researcher anticipated to face the problems of non-responsive respondents in conducting the research. The fact that the study was undertaken within business hours, these respondents were busy with their daily operational activities. The researcher created a rapport process, explaining to them why one's responses to the study are vital and therefore sparing some little time to adjust and participate in the study can be important and desirable. In cases of adjustable schedules, appointments were secured for the next time.

The study was cross sectional in nature. The results could be different if a longitudinal study is conducted.

5.5 Areas of further research

Longitudinal Studies on Mobile Banking Adoption: To understand how the factors influencing mobile banking adoption change over time, researchers can conduct longitudinal studies. These studies would track the adoption behavior of customers over an extended period, allowing for a more in-depth analysis of how factors like perceived ease of use, trust, and perceived usefulness evolve and impact adoption trends.

Cross-Cultural Mobile Banking Adoption: Mobile banking adoption is influenced by cultural factors. Future research can investigate how cultural differences affect the adoption of mobile banking services. Comparative studies across different regions or countries can provide insights into how banks should tailor their mobile banking offerings to diverse cultural preferences and behaviors.

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APPENDICES

Appendix 1: QUESTIONAIRE GUIDE

MAKERERE UNIVERSITY BUSINESS SCHOOL
DIRECTORATE OF RESEARCH AND GRADUATE TRAINING
Dear Sir/ Madam,

I am pursuing a Master's Degree of Business Administration of Makerere University Kampala. As one of the requirements for completion, I am undertaking a study on "**PERCEIVED EASE OF USE, PERCEIVED USEFULLNESS, TRUST AND ADOPTION OF MOBILEBANKING BY CUSTOMERS OF COMMERCIAL BANKS IN UGANDA"**. This study is purely for academic purposes and all your responses expressed herein will be kept with ultimate confidentiality. You are requested to fill free while filling this questionnaire presented to you. In advance, I thank you so much for your cooperation!

NAMATOVU CAROLINE AWORI

STUDENT

SECTION A: DEMOGRAPHIC CHARACTERISTICS

In the following questions, you are requested to tick the option that best suits you.

Q1. Gender

Male	Female
1	2

Q2. Age bracket

<30 yrs	30-40 yrs	41-50 yrs	51 and above
1	2	3	4

Q3. Highest Education level you have attained

Certificate	Diploma	Degree	Post graduate
1	2	3	4

Q4. For how many years have you been a customer to mobile banking?

<2 yrs	2-4 yrs	4 yrs& above
1	2	3

SECTION B:

Under this section, the researcher is interested in ascertaining information regarding Perceived ease of use, Perceived usefulness, Trust and Adoption of mobile banking by customers of commercial banks in Uganda". You are required to respond to the statements provided using the Key provided. **Key:** 1-Strongly Disagree (**SD**), 2- Disagree (**D**), 3- Not Sure,4 -Agree (A) and 5 represents Strongly Agree (**SA**).

PEOU	**Statements on Perceived Ease of Use**	S	D	N	A	S
PEOU1	I easily find it easy to learn Mobile banking					
PEOU2	It is easy for me to become skillful in the use of the Mobile banking					
PEOU3	I do not need to consult the user manual often when using Mobile banking.					
PEOU4	I can easily interface with the Mobile banking application.					
PEOU5	I don't make errors frequently when using Mobile banking					
PEOU6	I find it easy to correct errors encountered while using Mobile banking.					
PEOU7	I find it easy to get required service using Mobile banking.					
PEOU8	Interacting with Mobile banking is not frustrating.					
PEOU9	Interacting with Mobile banking requires a lot of my mental effort.					

PU	**Statements on Perceived usefulness**	SD	D	NS	A	SA
	Perceived Usefulness					
	Benefits					
PU1	I find mobile banking advantageous to me					
PU2	Using mobile banking gives me greater control over my work.					
PU3	Using mobile banking saves my time.					
PU4	I can pay for services using mobile banking with ease					
PU5	In using mobile banking, I find bank's systems efficient					
PU6	The bank tries to reach me whenever I encounter a problem while using a given platform					
PU7	Mobile banking provides timely service					
PU8	I receive feedback in timely manner					
PU9	Am sensitized on the use of the mobile banking.					
PU10	I find the mobile banking effective while using it.					
PU11	Using mobile banking enhances my effectiveness in what I do.					

	TRUST	SD	D	NS	A	SA
	Ability					
T1	I don't have any fear when using mobile banking					
T2	From the time I have used mobile banking services, I have not had bad experiences in this bank.					
T3	This bank keeps its promises.					
T4	This bank does not deceive us					
AMB	**Statements on Adoption of Mobile Banking**					
	The following questions have been used to measure adoption of mobile banking.	SD	D	NS	A	SA
AMB1	I have been using mobile banking services comfortably well					
AMB2	I access mobile banking services any time of the day.					
AMB3	I use mobile banking services all the time to do different kinds of banking transactions.					
AMB4	I encourage my friends to use mobile banking services.					
AMB5	I will continue using mobile banking					

Thank You so much for your time!

APPENDIX II: SAMPLE SIZE DETERMINATION

N	**S**	**N**	**S**	**N**	**S**	**N**	**S**	**N**	**S**
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	*360*	*186*	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Source: Krejcie, R. V., & Morgan, D.W. (1970). Note:"N" is population size and "S" is sample size