

**EXAMINATION OF FACTORS INFLUENCING THE INTENTION TO USE  
MOBILE PAYMENT IN TANZANIA: A CASE OF BUKOBA MUNICIPAL  
COUNCIL**

**BRASIO INNOCENT**

**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS  
ADMINISTRATION IN FINANCE (MBA)  
DEPARTMENT OF ACCOUNTING AND FINANCE  
OF OPEN UNIVERSITY OF TANZANIA**

**2025**

## CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation titled: **“Examination of factors influencing the intention to use mobile payment in Tanzania: A case of Bukoba Municipal Council”** in partial fulfillment of the requirements for the degree of Master of Business Administration (MBA).

.....  
Dr. Mato Magobe

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.....  
Date

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I, **Brasio Innocent**, declare that, the work presented in this dissertation is original. It has never been presented to any other University or Institution. Where other people's works have been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfillment of the requirement for the Degree of Master of Business Administration (MBA).

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Signature

.....  
Date

**DEDICATION**

I would like to dedicate this work to Almighty my creator, my strong pillar, my source of inspiration, wisdom, knowledge and understanding. Also I dedicate this work to my family which has encouraged me all the way and whose encouragement has made sure that I give it all it takes to finish that which I have started.

God bless you.

## **ACKNOWLEDGEMENTS**

The journey to completion of this study has been full of challenge. But looking at the horizon there has always been a light calling for me to keep going and thank God I didn't lose the focus on the goal. I am forever indebted to the almighty god for his blessings and grace that I have been able to reach this far in my education. I know there is a lot distance to cover ahead and am forever going to look up to him as his greatest cheerleader. My sincere extended appreciation and thankful also goes to my lecturers at The Open University who made sure that I do the best in my study.

I would like to appreciate to my supervisor Dr. Mato Magobe who has given me invaluable advice and guidance throughout the project period. Thank you for putting in the time even in your busy schedule. I also appreciate my colleagues and friend thank you for the time we spent together sharing and working towards achieving our goal.

## ABSTRACT

The study examined the factors influencing the intention to use mobile payment in Tanzania: a case on Bukoba Municipal Council. Specifically, it examined the influence of contextual factors and demographic factors on the usage of mobile payment in Tanzania and explored the challenges facing customers facing when using mobile payment. The study used 110 respondents in Bukoba Municipal Council, Kagera sampled using Simple Random Sampling Questionnaire and structured interview tools were used to collection data, and analyzed using Descriptive statistics and inferential statistics. The results of the findings revealed the factors influencing mobile payment, performance expectancy, effort expectancy, social influence, facilitating conditions, and perceived risk. Analysis showed these predictors explained only 5% of the variance in adoption intentions, with none having a significant impact. However, demographic factors such as age and education were significant, with younger and more educated individuals more likely to adopt mobile payments. The study also, showed that mobile payment was challenged by issues with mobile money agents, lack of understanding of the technology, language barriers, and inadequate access due to insufficient national identification and uneven distribution of agents. The study recommended enhancing agent training, improving user education, and addressing regulatory and identification challenges to facilitate broader adoption and better service accessibility. The implications of this study underscore the need for targeted interventions to boost mobile payment adoption in Tanzania. For mobile payment service providers, it is vital to focus on the younger and more educated segments of the population, as they demonstrate a higher propensity to use these services.

**Keywords:** *Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions.*

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### **LIST OF ABBREVIATION**

APPS	Applications
B2B	Business to Business
B2C	Business to Customer
C2B	Customer to Business
C2C	Customer to Customer
DSTV	Digital Satellite Television
FSDT	Financial Sector Deeping Trust
IBM	International Business Machines
ICT	Information Communication Technology
ID	Identification
MBA	Master of Business Administration
MFS	Mobile Financial Services
MMT	Mobile Money Transfer
NIDA	National Identification Authority
P2B	Person to Business
P2P	Person to Person
SIM	Subscriber Identification Module
SMS	Short Message Services
SPSS	Statistical Package for the Social Sciences
TTCL	Tanzania Telecommunications Corporation Limited
US	United States

USD	United States Dollar
USSD	Unstructured Supplementary Service Data
UTAUT	Unified Theory on Acceptance and Use of Technology Model

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

In the 21st century, the convergence of technology has resulted in a significant demand for various products and services. The continuous growth of Information Communication Technology (ICT) has made many individuals to conduct transactions. The outcomes stemming from the introduction of new technologies, innovations and heightened customer demand have prompted a shift in the business landscape (Mutalemwa, 2016). The growth and expansion of mobile money services has introduced both challenges and opportunities for businesses and individuals alike. The extensive and expanding reach of the internet has facilitated seamless business transactions through smartphones, tablets and computers (Mutsikiwa, 2021). Also, for the small and large companies must involve e-commerce technology in their business. Having e-commerce transactions may help companies to create better environment for sales opportunities.

Mobile money transfer involves the electronic movement of funds via mobile phones, allowing users to perform financial transactions remotely without relying on conventional banking systems. This innovation has transformed how individuals manage and access their finances, especially in areas where formal banking services are scarce. Mobile money payment helps users to send and receive funds from various areas, or from friends, family, in making different bills payment, purchasing as well as accurate use of financial services directly from mobile devices (Aker, 2019).

Mobile money providers collaborate with local telecom companies to process various transactions, leveraging mobile networks to reach users worldwide (Mlambiti, 2019). The simplicity, accessibility, and security of mobile money transfer have made it a popular financial tool, especially among unbanked and underbanked populations in emerging markets. Mobile payment is one of the many mobile financial services (MFS) available today. It is seen as a gateway to other mobile financial services such as mobile banking, insurance, credit/lending, and investment products (Partners, 2017).

Recently, more people are using cryptocurrency for various purposes like payments, trading, saving, and investing. Mobile payments can be made in different ways, such as person-to-person (P2P), consumer-to-consumer (C2C), or even between consumers and businesses (C2B, B2C, B2B). P2P payments are often called mobile money transfers (MMT), while the more commercial transactions like C2B, B2C, and B2B are typically referred to as mobile payments.

Mobile money services in Tanzania were introduced in 2008 with the inception of Vodafone MPesa, aiming to serve the affluent, the marginalized, and those without bank accounts (Lema, 2014). In that same year, Zantel Tanzania rolled out Z-Pesa and enhanced its Ezy-Pesa service in 2012. In alignment with the established trend were Tigo, Airtel, and afterward Halotel Tanzania. At this juncture, a diverse range of mobile money services is being made available by telecom enterprises, such as Vodacom M-Pesa, Tigo-Pe.sa, Airtel Money, Ezy-Pesa and Halopesa. This has created opportunities for customers and businesses to choose a favorable mobile money service, fostering competition among providers. As a result, there has been a

strong increase in mobile service transactions (Maganga, 2019).

In recent times, there have been a growing number of successful mobile payment platforms around the world such as SEQR and Swish in Sweden, Square Cash, PayPal in the US, M-Pesa in Kenya, as well as global services such as Apple Pay and Google Wallet. In 2012, cooperation between six of the biggest banks in Sweden led to the launching of a new mobile app that offered easy and fast transfers between different individuals' bank accounts (Ibidunmoye, 2018). On the other hand, many authors around the world have shared knowledge of mobile payment. A study was conducted by Ibidunmoye (2018) in Sweden to understand the factors that influence the adoption of payment systems among consumers. The study showed that Information Technology has evolved over the years and is still evolving. One of the areas where ICT has been constantly experiencing change and growth is the way people handle transactions from physical (money) hand-to-hand payment to digital form.

This research explored a specific aspect of m-commerce, focusing on payment methods. Mobile payment refers to the capability to settle transactions for products, services, and bills via a mobile device by utilizing wireless and various other communication technologies. Despite the significant acceptance this system has gained since its launch, attributed to its numerous benefits like flexibility and convenience, it still faces limited adoption among consumers, merchants, and organizations.

As posited by Zhang et al. (2013), the employment of mobile devices for financial transactions not only enhances the efficiency of traditionally laborious payment

processes but also enables consumers to execute payments at any time and from any location. According to emarketers (2016), global smartphone usage is projected to increase by (61.1%) in 2018. This translates to a total of 4.57 billion individuals using smartphones for their daily activities. With the worldwide surge in smartphone usage in recent years, mobile application software (apps) has experienced a similarly significant rise in popularity (Hsiao et al, 2016). It is thus unsurprising that the money payment system has gained traction and is becoming increasingly prominent.

In July 2021, the Tanzanian Government rolled out a new levy on mobile money transfer transactions, referred to as the ‘money transfer levy,’ aimed at expanding the tax base and enhancing revenue collection. This initiative was enacted through an amendment to the National Payment Systems Act (Cap 437) (Act) and the issuance of the National Payment Systems (Mobile Money Transfer and Withdrawal Transactions Levy) Regulations, 2021. These regulations were later revised on 31 August 2021 via the National Payment Systems (Mobile Money Transfer and Withdrawal Transactions Levy) (Amendment) Regulations, 2021 (in conjunction with the 2021 Regulations). The amendments made in August 2021 lowered the rates of the levy but did not introduce any other significant changes. In July 2022, the Government released the National Payment Systems (Mobile Money Transaction Levy) Regulations, 2022 (2022 Regulations) (MMASI, 2022).

The new tax on mobile money in Tanzania has caused a significant shock among the population, particularly because of the sharp increase in transaction costs. Nearly 26 million people, or about half of Tanzania’s population, use mobile money, making the increase in charges widely felt. The tax, which raised the costs of sending,

withdrawing, and transferring funds, has sparked outrage from many consumers (Sippy, 2021). Considering the various factors affecting monetary transactions, the researcher investigated one factor that influences the intention to adopt mobile payment in Tanzania.

## **1.2 Statement of the Problem**

Mobile payments carried out via devices like smartphones or tablets have garnered considerable attention lately. Numerous people opt for mobile money services to simplify their everyday transactions (Mbamba, 2017). Various elements can affect the acceptance or rejection of technological innovations like mobile payments. While multiple studies have indicated the factors that affect the rollout of mobile money services, challenges such as a lack of knowledge and inadequate technology continue to impede mobile banking users from embracing these options (Nyambura et al, 2013). A key barrier to the adoption of mobile money services is the lack of awareness regarding the potential uses of these services, along with unreliable connections in certain regions, particularly rural areas (Ibidunmoye, 2018).

Although Communication Services have significantly contributed to making financial services accessible to a large population, the P2B mobile money payment option has not reached its full potential when compared to other mobile financial services like Mobile Money transfer (P2P) and Mobile Banking. There is limited knowledge regarding the factors that affect the intention to use mobile payment (P2B) in Tanzania. This study was designed to evaluate the factors that influence the adoption of mobile payment in Tanzania.

### **1.3 Objectives of the Study**

This study has general and specific objectives.

#### **1.3.1 General Objective**

The main objective of this study was to examine factors influencing the intention to use mobile payment in Tanzania: a case of Bukoba Municipal Council.

#### **1.3.2 Specific Objective**

- i. To examine the influence of contextual factors on the usage of mobile payment in Tanzania.
- ii. To investigate the influence of demographic factors on the usage of mobile payment in Tanzania.
- iii. To explore the challenges facing customers when using mobile payment.

### **1.4 Research Questions**

- i. What are the contextual factors influencing the use of mobile payment in Tanzania?
- ii. What are the demographic factors influencing the usage of mobile payment in Tanzania?
- iii. What are the challenges facing customers when using mobile payment in Tanzania?

### **1.5 Significance of the Study**

This research study explored the factors that affect the intention to utilize mobile payment systems in Tanzania, notably within the scope of the Bukoba Municipal Council. The results of this research will enhance understanding and inform policy

implementation regarding the influence of mobile money on the development of micro, small, and medium enterprises in Tanzania; in addition to benefiting small business stakeholders, this study will also foster gender equality within our communities. The research will enrich the current body of literature and identify gaps for future inquiries on this topic or related subjects by highlighting areas that warrant further exploration. It is not sufficient merely to gather the perspectives of interviewees, such as through sampling and to analyze the data without further purpose. Consequently, the impact of this current study will primarily hinge on how the research findings will influence the Tanzanian community regarding the utilization of mobile transactions as a means of employment.

### **1.6 Scope of the Study**

This study is confined to Bukoba Municipal Council in Kagera Region, Tanzania. Bukoba was chosen as the study area for several reasons. First, Bukoba Municipal is an urban center with relatively high penetration of mobile phones and mobile money agents compared to rural districts. This makes it an appropriate setting to examine factors influencing the adoption and continued usage of mobile payments. Second, the Municipality has a diverse population in terms of age, income levels, and occupations, which provides a good basis for analyzing the role of demographic factors in mobile payment adoption.

The variation among residents helps capture how different social groups use or perceive mobile payment systems. Third, Bukoba is the regional commercial hub of Kagera Region, where mobile payment services are increasingly integrated into trade, business transactions, and daily life. Studying this area offers practical insights

into how contextual factors, such as business environment and service availability, shape mobile payment usage.

Lastly, the Municipality has experienced both opportunities (increased access to financial services) and challenges (network issues, service charges, and security concerns) in the adoption of mobile payment systems. This makes it a relevant and feasible case for exploring not only drivers but also challenges facing customers.

### **1.7 Organization of the Study**

This study covers five chapters, the first chapter comprises background information of the study, statement of the problem, objectives of the study, research questions also significance of the study and organization of the study. The second chapter will consist of a definition of key terms, a theoretical literature review, an empirical literature review, a research gap and a conceptual framework. The third chapter includes an introduction, research philosophy, research approach, research design and strategy, area of the study, population of the study, sample and sampling techniques, data collection methods, data collection tools, data analysis, variables and measurement procedures, validity, reliability and ethical consideration. Chapter four comprise findings and discussion and lastly chapter five covers the summary of the main findings, conclusions, recommendations and areas for future researches.

## CHAPTER TWO

### LITERATURE REVIEW

#### **2.1 Overview**

This chapter presents the literature review that this research is based on. This chapter explains the definition of key terms, a review of theories on factors influencing mobile payments and empirical literature as well as the research gap of the study.

#### **2.2 Definition of Key Terms**

The following section articulates the definitions pertinent to the key terms applied in this study. Mobile Money; refers to a transaction conducted via the customer's account stored on their mobile device. It functions through a menu on their SIM card, enabling them to perform a range of financial operations (Suri, 2017). The mobile money transfer enables digital person-to-person (P2P) payments, allowing users to make different bills, savings and managing funds, conduct person-to-business (P2B) transactions, and receive payments from different parts the world using their mobile devices.

**Mobile Payment:** Mobile payments refer to transactions conducted via a mobile device, specifically using mobile phone (Pihlajamäki, 2004). The most significant of using mobile payment is to enhance the efficiency of microfinance and other financial institutions by leveraging mobile technology to facilitate transactions that are accurate, quicker, more affordable and more secure. (Kim and Lee, 2009) describes mobile payments as M-payment, which serves as an alternative method for settling payments for goods, services and bills/invoices. This system employs mobile

devices (such as mobile phones, smartphones or Personal Digital Assistants) and wireless communication technologies (including mobile telecommunications networks or proximity technologies).

**Mobile Money Interoperability:** The concept of interoperability refers to the capability of various products, services, or systems to collaborate in a manner that generates value for businesses and/or consumers. This is generally accomplished through the exchange of information or the application of a certain level of standardization among the involved organizations (Rattel, 2024). Naji (2020) defines interoperability as the ability provided by Mobile Money Operators to facilitate money transfers between two accounts across different mobile money platforms. In other words, mobile money interoperability can be described as a process of integration that establishes connections between operators and other payment services.

### **2.2.1 Mobile Money**

Mobile payment is the use of mobile phones to conduct a transaction. This process involves money being transferred from a one person to another receiver directly via a mobile app. M-payments can be considered as substitutes for cash, credit cards, and online banking (Ibidunmoye, 2018). Mobile payment is in its early stage and was cooperated by banks, companies, and wireless carriers amongst others. The adoption of smartphones has led to online banking and online shopping for consumers before it transitioned to using Smartphones for transactions. In the early 21st century, mobile banking originated from SMS text messaging, which was supported by the 2G mobile technology.

SMS mobile banking was a way to make the user's cellular phone a banking tool through text messaging or push and pull messages (Micheni, 2020). However, with the advent of 3G, 4G and recently 5G mobile technology, users started to use internet banking with their Internet-enabled mobile devices. Mobile users use wireless internet access for their payment.

### **2.2.2 Mobile Payment**

**Mobile Payment Systems in Tanzania:** In Tanzania, mobile payment solutions offer a means for P2P money transfers, as the use Tigopesa, Airtel money, M-Pesa, Halopesa along with mobile banking services. All of these platforms ensure users to send money using their mobile devices. By 2020, mobile money penetration in Tanzania reached 53%, with 29.7 million subscriptions and a transaction value of USD 81 billion. In June 2020, 272,339,270 was found as mobile money transactions totaling USD 4.6 billion.

Additionally, there are six money payment operating companies in Tanzania: Vodacom with M-Pesa (39%), Tigo with TigoPesa (30%), Airtel with Airtelmoney (20%), Halotel with Halopesa (7%), TTCL (3%), and Zantel with EzyPesa (1%) (TanzaniaInvest, 2021). Despite of mobile money, mobile money companies started to offer additional mobile financial services and mobile insurance such as Tigo launched the first mobile insurance service in Tanzania, TigoBima, in 2012, which covers life and hospital expenses for their users. Additionally, Tigo clients were innovators in utilizing a global mobile money transfer service with immediate currency conversion, available in both Tanzania and Rwanda.

**Tanzania Mobile Money Uses:** Mobile money has evolved from traditional payment mechanisms such as domestic remittances and airtime top-ups to more advanced financial services. According to the 2017 FinScope report by the Financial Sector Deepening Trust (FSDT), among the (43%) of adults in Tanzania who save, (35%) utilize their mobile wallets for this purpose. Moreover, of the (44%) of adult Tanzanians who take loans, (4%) rely on mobile money and (3%) turn to banks. The report further reveals that from 2013 to 2017, the total number of adults using the services grew to (15%), while those utilizing mobile financial services surged by (38%). Mobile money is also used by Tanzania's in paying various bills such as water, rent, school fees and over (70%) of electricity bills in the nation are now settled using mobile money services (TanzaniaInvest, 2021). In Tanzania, the Dar Es Salaam Water and Sewerage Corporation facilitated water payments through mobile money as early as 2009. In 2013, mobile money payments had created revenues of USD 45,000 for every month.

**Tanzania Mobile Money Interoperability:** In September 2014, mobile money providers in Tanzania started to interconnect their services through a bilateral agreement between Tigo and Airtel, which was officially launched in February 2015. Also, Vodacom revealed its partnership with Airtel and Tigo after joining with Zantel in December 2014 and February 2016. In 2016, Tanzania was recognized as the pioneering nation globally to attain full interoperability, meaning that customers of using different mobile services could transact directly with one another.

Tanzania was seen as the first nation worldwide to accomplish full interoperability, meaning users of different mobile money services could engage in transactions

directly with each other. International interoperability has also become a reality in Tanzania due to the collaborations of mobile money operators with global money transfer services such as MoneyGram and Western Union. Vodacom Tanzania facilitates operator-to-operator international money transfer interoperability through its alliance with Safaricom in Kenya. Additionally, Airtel and Tigo permit their users to send money internationally to subscribers of Airtel or Tigo in Kenya, Rwanda, and Uganda. In 2021, Vodacom Tanzania launched the second phase of its International Money transfer expansion plan, enabling direct money transfers from M-Pesa to all bank accounts across East Africa.

In 2013, B-Pesa was launched in Tanzania as the first prepaid card in the country. It lets customers make transactions at any B-Pesa member bank or merchant. With B-Pesa, customers can easily transfer money between cards, withdraw cash, deposit money, and pay bills. In November 2015, BitPesa, an online platform that helps convert digital currencies like bitcoin into local African currencies, expanded to Tanzania. Since then, BitPesa has been offering fast payments to and from mobile money networks and over 60 banks across Nigeria, Kenya, Uganda, and Tanzania (Magali, 2018).

### **2.3 Theoretical Literature Review**

This section explores the theoretical concepts that are relevant to the research. The study centers around the specific theory known as the Unified Theory of Acceptance and Use of Technology Model (UTAUT).

#### **2.3.1 Unified Theory on Acceptance and Use of Technology Model (UTAUT)**

This theory was formulated by Venkatesh et al (2003). The model proposes that

performance expectancy, effort expectancy, and social influence predict behavioral intention toward the acceptance of information technology (Taiwo and Downe, 2013). The theory further proposes that facilitating conditions and behavioral intention predict use behavior in the acceptance of information technology (Taiwo and Downe, 2013).

### **2.3.1.1 Performance Expectancy**

Performance Expectancy (PE) refers to the degree to which an individual believes that technology will assist them in accomplishing particular tasks and enhance their overall effectiveness (Venkatesh et al., 2012). Within the framework of this research, mobile payments present a streamlined method for conducting financial transactions. Moreover, individuals can utilize mobile payment services through the widespread use of mobile phones (Slade et al., 2015). When people see that technology offers real financial benefits and makes things more convenient and satisfying, they're more likely to start using it.

### **2.3.1.2 Effort Expectancy**

Effort Expectancy (EE) refers to the level of simplicity related to consumers' utilization of technology (Venkatesh Et Al., 2012). Therefore, it is anticipated that as mobile payment systems become more user-friendly, the likelihood of users adopting these behaviors will increase (Al-Saedi et al. 2020). However, given the character of the mobile payment systems, they require a certain degree of skills and knowledge. Therefore, the user's willingness to adopt such technology could be mostly influenced by effort expectancy (Alalwan et al, 2017). Besides; numerous studies have shown effort expectancy to be one of the most important factors affecting

payment adoption (Al-Saedietal, 2020).

### **2.3.1.3 Social Influence**

Social Influence (SI) is about how much the way someone uses technology is shaped by what others around them, like family, friends, or colleagues, think or say (Martin, 2008). Research study shows that social groups are likely to form a common base for interactions to exchange service experiences within the same group of users. In other words, members of a particular social community are likely to exchange shared service experiences and that information paired with the encouragement of surrounding people would raise potential customers ‘awareness and the intention to adopt (Dawi, 2019).

### **2.3.1.4 Facilitating Conditions**

Facilitating Conditions (FC) refers to “the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system (Abbad, 2021). As mentioned earlier, mobile payments require the asset of skills and knowledge, apart from that, they also require a supported device and assistance. Thus, the behavior intention to adopt mobile payment would increase if the users believe Mobile payment services are compatible with other technology they already use, and if they have access to a certain level of support and resources (Oliveira, 2016).

### **2.3.1.5 Perceived Risk**

Consumer’s perceived risk was originally theorized by Bauer (1960) as the undesirable outcome that a consumer anticipates that it can follow his current

actions. Mitchell (1999) divides it into two components: uncertainty about the consequences of a wrong choice and uncertainty about the outcome. In the technology adoption process, perceived risk was usually represented as a detractor factor (Slade et al., 2015). Moreover, the terms perceived are performance risk, security/privacy risk, time risk, social risk, and financial risk as defined by Lee and Chung (2009). According to past studies, the perception of risk is regarded as a crucial factor that hinders M-payment adoption (Al-Saedi et al., 2020).

According to Kabir (2013); Performance risk refers to losses caused by failures of mobile payment servers. Security risk is defined as a potential loss resulting from fraud or a hacker violating a mobile banking user's security. Social risk refers to the possibility that using mobile banking would be frowned upon by one's peers, relatives, or coworkers. Financial risk is defined as the potential for financial loss due to transaction errors or bank account misuse. Time risk refers to a loss of time and any inconvenience incurred due to payment delays or navigational difficulties. Therefore, perceived risk hurts the intention to adopt mobile payment services.

## 2.4 Empirical Literature Review

This section presents the established scholarly work that illustrates factors that influence the intention of mobile payment. It provides the findings that have been used in the previous studies on each independent variable of the study. The mobile payments must be accessible online 24 hours per day, that is the task arrangement of mobile installment ought not to present disappointments whenever (Mbwayo, 2019).

The increase in mobile payments is so rapid that it can change the payment culture in cash transactions into electronic money, speed and convenience in transactions,

expected performance and effort expected from mobile payments, conditions of mobile payment facilities, and the surrounding environment and behavior or culture are driven by variables that have an impact and influence on increasing the use of mobile payments (Wijaya et al., 2021). The results of their study (Wijaya et al., 2021), showed that mobile payment is a significant predictor of comfort and willingness to pay.

Moreover, Ibidunmoye (2018) examined the factors influencing the adoption of mobile payments in Sweden. The study identified the impact of the system on day-to-day activities, and showed that mobile payment systems were very useful because of their ability to pay bills, send monetary gifts, book flights and so much more. However, on the other hand, some people felt that as long as there are alternatives, they do not find the system useful. According to the findings showed that the system was convenient, safe, and fast. The study elaborates more that if mobile payment system is fast, a lot of people will continue using it. The convenience, flexibility, and safety it provides environment for the people to adopt the system. This reduces people from carrying paper money and also reduce the theft rate in community (Ibidunmoye, 2018).

Furthermore, Abrahao, et al., (2016) found that (76%) of behavioral intention was explained through performance expectation, effort expectation, social influence, and perceived risk, while perceived cost was not statistically significant at the (5%) level. The researchers suggested that, the findings could guide participants in the payments market to develop a mobile payment service that is high-performing, easy to use, secure, and socially influential at a fair price, meeting the needs and expectations of

modern mobile phone users. Additionally, findings of the study revealed that development of communication and marketing strategies emphasize positive attributes to encourage the widespread adoption and the use of mobile payments.

According to Kumar, et al., (2023), in the study on the role of perceived financial cost, perceived risk, and trust in the adoption of mobile banking services by young Indian customers, found that performance expectancy, effort expectancy, social influence, and perceived financial cost positively impacted behavioral intentions. However, facilitating conditions had no effect on the actual use of mobile banking services. They also discovered that perceived risk and perceived trust moderated the relationship between behavioral intention and actual use of mobile banking services. Similarly, Martins et al., (2013) combined the Unified Theory of Acceptance and Use of Technology (UTAUT) with perceived risk to explain behavioral intention and usage behavior of Internet banking. The results supported relationships among variables of interest in UTAUT, such as performance expectancy, effort expectancy, and social influence, and identified risk as a strong predictor of intention to use Internet banking.

Furthermore, Adesinasi (2012), in the study on Mobile Banking Adoption and Consumer Behavior in Nigeria, found that there was a high level of consumer knowledge about mobile payment systems but the current rate of mobile adoption in Nigeria was very low compared to the number of customers who had mobile facilities. It was observed that awareness, perceived usefulness, perceived ease of use; perceived financial cost, self-efficacy, and social influence were important factors that had a positive influence on consumer decisions to adopt mobile

payments in Nigeria.

On the other hand, Masele and Taluka (2016) reported that their study on the influence of perceived trust in rural consumer mobile payment service adoption found that perceived trust strongly and positively influences the adoption of mobile payment services in rural areas. However, they found that the moderation effects of gender and age were not statistically significant. Therefore, the findings suggested that mechanisms should work more in order to reduce uncertainties that customer meets when using mobile payment systems in all demographic characteristics such as age, gender and etc. Since these factors equally effect the perception of trust.

According to Lema (2014) investigated factors affecting the execution of mobile financial services for the unbanked population in Tanzania. The study revealed that perceived usefulness, perceived price, and social influence had a major impact on the implementation of mobile financial services in Tanzania. Additionally, the study showed insignificant differences in the adoption and the use of mobile financial services between males and females among the unbanked. Furthermore, Abdnoor and Mbamba (2017) carried out a study on to assess the adoption of mobile financial services in Tanzania. Their findings indicated that adoption was positively influenced by individual awareness, perceived usefulness, and perceived benefits, while negatively affected by cost concerns. Additionally, the study found that demographic characteristics such as sex, age, and income level moderate the adoption of mobile financial services.

According to Ntauakira, et al., (2021), in the study on factors that determines continuous intention to use mobile payments in Malawi. The findings of the study

revealed that young adults (57%) were the majority users of mobile payments. This could be because young people were the ones who are most likely to be technologically savvy and are happy to try new things. Furthermore, women (60.3%) used mobile payments more than men. It is most likely that most of these female users are still in school and, therefore, tend to use mobile payments to receive and send money from and to their family and friends. There was no big difference between those with lower education and those with higher education in terms of usage of mobile payments.

According to Vasantha and Sarika (2019), in their empirical analysis of demographic factors influencing the intention to use mobile wallets, the objective of the study was to investigate how demographic variables, specifically gender and age, impact the motivations behind users' intentions to adopt mobile wallets. The results showed that regarding gender, the factor of personal innovativeness significantly influences the intention to utilize mobile wallets, while other factors such as perceived enjoyment and subjective norms do not show substantial differences. Furthermore, age notably affects the intention to use mobile wallets.

In another study, Anthony and Mutalemwa (2014) examined the factors that affect the use of mobile payments in Tanzania, particularly focusing on insights from Zantel's Z-pesa services. The analysis of their findings highlighted several barriers to the adoption and utilization of the Z-pesa service, including perceived ease of use, perceived usefulness, perceived cost, perceived mobility, perceived trust and perceived expressiveness. The study concludes by offering recommendations to overcome the challenges related to the adoption and use of Z-pesa services.

## 2.5 Research Gap

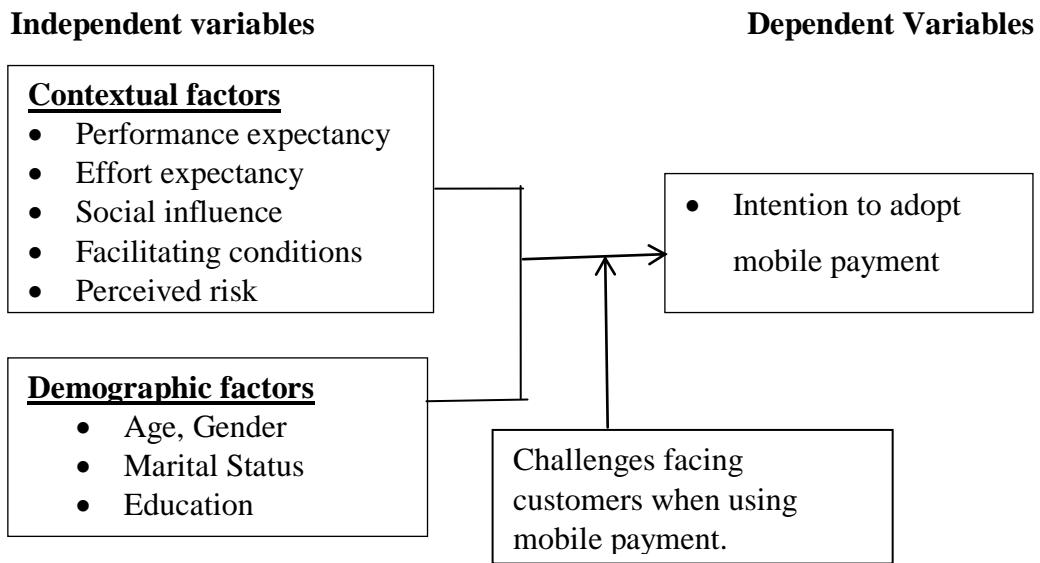
Various studies have showed their interest in the adoption of mobile money services in Tanzania (Lema, 2014; Isaga, 2015). Furthermore, majority of studies conducted by various researchers across regions in Tanzania had only focused on factors derived solely from the technological acceptance model, neglecting other significant elements that also greatly impact the adoption of mobile money services.

This study aims to follow Pako (2015) and broaden its analysis beyond the technology acceptance model by including community-based factors such as geographical location and social amenities like access to tap water and electricity, as well as customer-specific factors including demographic characteristics (age, gender, occupation, income level, and education level). The literature review reveals that while numerous studies have been conducted on mobile payments in Tanzania, only a few have explored trust as an influential factor in adoption. While trust is often mentioned, research has not explored all aspects of trust in mobile payments in detail. This leaves a gap in understanding the role trust plays in the adoption of mobile payment system.

## 2.6 Conceptual Framework

According to Regoniel (2020), the conceptual framework embodies the researcher's integration of the literature aimed at elucidating a phenomenon. It delineates the actions necessary for the progression of the study, based on the researcher's prior understanding of other researchers' perspectives and the researcher's insights regarding the phenomenon under investigation (Regoniel, 2020). The conceptual framework is comprised of five independent variables along with a single dependent

variable.



**Figure 2.1: Conceptual Framework**

**Source:** Research Study (2024).

The proposed conceptual model aims to explore the elements that affect the intention to utilize mobile payment in Tanzania. The five variables illustrated on the left (Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, and Perceived Risk) are shown as independent variables, while the dependent variable is the intention to adopt mobile payment, with Age, gender, marital status and Education considered as demographic factors.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Overview**

This chapter defined the research framework and provided a detailed explanation of the fieldwork procedures. The research also evaluated the forms of data applied and their origins, emphasizing the elements that influence the inclination to utilize mobile payments in Tanzania, with the researcher drawing attention to the relevant characteristics of the subject area. The research covered the target population, research instruments, including data collection methods, sampling procedures, and the techniques used for data analysis.

#### **3.2 Research Philosophy**

#### **3.3 Research Design**

The term research design describes the systematic outline that defines the methodology and strategic framework for inquiry, which seeks to collect relevant data to accomplish the research goals and answer the research questions (Kothari C., 2012). In this investigation, the researcher adopted a case study framework, which consists of analyzing or acquiring information within a particular social environment.

Several factors have played a role in this selection of a case study, notably the ease with which case studies can be understood by audiences outside the specialized field of the research topic; a case study allows for an in-depth exploration of a particular aspect in a limited time frame, and it ensures clear and fair documentation since evidence can be corroborated from the site of investigation. Additionally, due to the inherent flexibility of case studies, they can also capture anticipated outcomes

(Kothari, 2014).

### **3.4 Research Approach**

The research methodology functions as a strategic framework that includes a spectrum of overarching assumptions culminating in specific methodologies for the collection, analysis and interpretation of data (Creswell, 2017). The researcher utilized a quantitative methodological framework for the collection of data suitable for statistical evaluation and comparison. The questionnaire was disseminated among the intended participants within the Bukoba Municipal Council.

#### **3.4.1 Quantitative Approach**

This approach uses numerical data or data that are quantified. The researcher applied this to analyze and describe numerically the factors influencing the intention of money payment in Tanzania.

### **3.5 Area of the Study**

This research was carried out in Bukoba Municipal Council located in the Kagera Region of Tanzania. Bukoba Municipal District is one of the eight districts that make up the Kagera Region in Tanzania. The Bukoba Municipal Council serves as the central district, hosting numerous mobile money services such as Vodacom, Tigo, Airtel and others; thus, the researcher chose this location to gather pertinent information for the study compared to other districts, as it offers a higher concentration of people and businesses essential for fulfilling the requirements of this research.

### **3.6 Target Population**

The study population is a group of individuals' selected based on inclusion and exclusion criteria that relate to the variables being studied (Kothari C, 2012). The target population included local agents and customers who use mobile money payments.

### **3.7 Sampling Techniques**

Sampling techniques are the process used to select respondents from the population study (Prof. John Bacon-Shone, 2020). In this study the following sampling techniques were used;

#### **3.7.1 Simple Random Sampling**

A simple random sampling involves selecting a random subset from a population, ensuring that every individual has an equal opportunity to be chosen. This approach is the simplest, as it entails only one random choice and minimal prior awareness of the population. Due to its reliance on randomization, any research conducted on this sample is expected to exhibit high internal and external validity (Lauren Thomas, 2020). The researcher employed this method to gather insights from participants chosen by the researcher that are pertinent to the study. The findings from this research were applicable to the entire population.

In other words, the researcher anticipates consistent results throughout the entire group without needing to gather data from every individual (which is often impractical for larger populations). Simple random sampling is a technique in which every item within the population has an equal opportunity and probability of being

chosen. In this approach, the selection of items relies solely on chance or probability, ensuring that each individual has the same likelihood of being included in the sample from the population (Acharya, 2013).

Consequently, this sampling method can be classified as a form of chance sampling. Simple random sampling is a widely utilized method in scientific research. This technique is particularly chosen for populations that are highly homogeneous, where participants in the study are selected randomly (Bhardwaj, 2019). Additionally, in this method, researchers create a numeric list of all sample sizes by employing a computer program to generate random numbers, especially when handling large sample sizes (Rahi, 2017; Omair, 2014), which provides them with a comprehensive list of the population for their specific research project.

### **3.7.2 Sample Size**

The sample for this study considered respondents of customers and businesses; this is due to the time and costs needed for this study. The study took a list of many users of mobile services, from which a random selection will be made. The decision on sample size was based on the fact that it won't be possible to involve all the users in the study due to involved costs in terms of money and time. The researcher used 110 samples due to time, and costs, and the pandemic is still going on, so due to these the researcher used 110 samples for the safety of the researcher and respondents. The population was chosen because it's a convenient location for the researcher, to maximize the response rate within the limited resources and short timeframe for the study.

To arrive at a representative sample, the study by Nyabwari, (2017) was used; the formula  $n = N/1 + N (e)^2$

Where n is the sample size,

N is the population size

e is the level of precision at (95%) confidence level.

Then the sample size of the study will be:  $150/1+150(0.05)^2 = 110$

**Table 3.1: Sample Size Distribution**

Sample Unit (Mobile services users)	Population	Sample Size
Airtel Money	30	22
TigoPesa	40	33
M-Pesa	70	50
Halopesa	10	5

**Source:** Researcher Computation (2024).

### **3.8 Data Collection**

#### **3.8.1 Type of data collected**

#### **3.8.2 Primary Data**

Primary data refers to information that is gathered anew and for the initial time, making it inherently original in nature (Researchguides, 2023). This type of data encompasses firsthand experience and observation, thereby minimizing distortions from other observers, which ensures its reliability. The data was collected through interviews carried out by the researcher and questionnaires designed by the researcher.

### **3.9 Data collection Tools**

#### **3.9.1 Questionnaires**

The researcher adopted a questionnaire framework as a strategy to obtain essential data and insights pertinent to the investigation. A combination of closed-ended

questions and open-ended questions that encouraged free responses was utilized. To minimize the potential for human error in the questionnaire, the researcher personally administered it. This approach allowed the researcher to address any questions that emerged during the administration of the research tool.

### **3.10 Data Analysis**

Data analysis can be defined as a structured methodology that involves the tasks of editing, coding, classifying, and tabulating information (Kothari, 2004). The study implemented both descriptive and correlational analyses. Descriptive analysis entails the quantitative simplification of datasets or the summarization of characteristics from the data, enabling the researcher to obtain a comprehensive view at both macro and micro levels of the datasets. Tables and pie charts were utilized to showcase the findings. Furthermore, the research incorporated multiple linear analysis to investigate the connections between contextual factors and the intention to adopt mobile payment, as well as the relationship between demographic characteristics and the intention to adapt to mobile payments.

As noted by Aggarwal (2020), multilinear regression analysis serves as a statistical methodology employed to examine the relationship between a singular dependent variable and multiple independent variables. This technique assists in comprehending how various factors concurrently impact an outcome (Aggarwal, 2020). Mathematically,

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_p X_p$$

Alternatively, the formula for linear multiple regression is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_n X_n + \epsilon$$

Whereby;

$Y$  = the predicted value of the dependent variable

$\beta_0$  = the y-intercept (value of y when all other parameters are set to 0)

$\beta_1 X_1$  = the regression coefficient ( $\beta_1$ ) of the first independent variable

$\beta_2 X_2$  = the regression coefficient ( $\beta_2$ ) of the second independent variable

$\beta_n X_n$  = the regression coefficient of the last independent variable

$\epsilon$  = model error (a.k.a. how much variation there is in our estimate of  $y$ )

Whereby  $Y$  is the dependent variable; Benefits of using mobile payment

$X_1$  = Performance Expectancy

$X_2$  = Effort Expectancy

$X_3$  = Social Influence

$X_4$  = Facilitating Conditions

$X_5$  = Perceived Risk

All statistical data were analyzed by using the Statistical Package for Social Sciences (SPSS) version 25 computer software.

## **CHAPTER FOUR**

### **FINDINGS, ANALYSIS AND INTERPRETATION**

#### **4.1 Overview**

This chapter articulates the insights obtained from the participants concerning the factors that influence the propensity to adopt mobile payments, particularly within the context of Bukoba Municipal Council. Initially, the chapter describes the mobile payment habits of all participants involved in the study. Following this, it details the findings, interpretations and discussions related to the research objectives which include examining how contextual factors impact mobile payment usage in Tanzania, exploring the effects of demographic factors on mobile payment utilization in Tanzania and identifying the challenges customers encounter while using mobile payments. Furthermore, the study includes model analysis, hypothesis testing and ultimately discusses the insights obtained from the participants.

#### **4.2 Demographic Characteristics**

In this section, the researcher sought to comprehend the nature and attributes of the participants in the study. It presents the descriptive findings that aided the researchers in outlining the essential profile of the respondents involved in the research and in bolstering the final analysis. According to Babu (2023), concentrating on demographic traits is vital as it establishes a systematic framework for grasping the makeup and variety of the study population.

This data enables researcher to investigate how various demographic elements such as age, gender, education, income and geographic location impact the research results (Babu, 2023). The findings presented in Table 4.1 show that 71 percent of the

study was of the age of 18-34 and 29 percent were of the age of 35-64. The results show that age is one of the crucial indicators as people of different ages perceive and see things differently. Also, the study shows that 80.90 percent of the respondents were single respondents, 18.20 percent were married as well and 0.9 were widowers.

**Table 4.1: Demographic Distribution of Respondents**

Characteristics	Frequency	Percent
<b>Age of the respondents</b>		
18 – 34	78	71.00
35-64	32	29.00
<b>Marital Status</b>		
Single	89	80.90
Married	20	18.20
Widow/widowed	1	0.90
<b>Highest Educational</b>		
No Formal Education	1	0.9
Primary School	5	4.50
Secondary	52	47.30
Post-Secondary School	52	47.30
<b>Mobile money users</b>		
Airtel Money	22	20
Tigopesa	33	30
M-pesa	50	45.5
Halopesa	5	4.5

**Source:** Field Data (2023).

The results indicate that 0.9 percent of the surveyed population lacked formal education, while a significant portion of the respondents, 47.30 percent each, possessed either secondary or post-secondary education and 4.5 percent had completed primary education. The research shows that individuals with higher education levels are more likely to utilize mobile payment systems, as they are better

equipped to comprehend the transactions being promoted and advertised. This suggests that the primary users of mobile payment services in Tanzania are those who have achieved advanced educational qualifications. Consequently, this characteristic is vital for developing descriptors for the specified population. The data regarding age groups allows the researcher to determine whether the results are representative of various age brackets or are exclusively related to a particular demographic.

Additionally, the results showed that most of the respondents were using M-Pesa as a medium transaction network were by 45.50 percent of the respondents were seen, 30.00 percent of the respondents were using Tigopesa, 20.00 percent of the respondents were using Airtel Money as well as 4.5 percent were using Halopesa. The researcher believed that knowing the rate of usage from the respondents would ensure accurate data for this study. Also, the usage of certain mobile payments shows the influential factors in using such networks in mobile payment activities.

### **4.3 Results of Analysis on Specific Objective**

#### **4.3.1 Research Objective One**

To examine the influence of contextual factors on mobile payment adoption in Tanzania: This section delineates the findings pertaining to the impact of contextual factors on mobile payment adoption. Firstly, this section starts by presenting a distribution of data as descriptive analysis was employed using mean and standard deviation to thoroughly examine and describe the key aspects of each variable. This approach provides detailed insights into the data, highlighting relevant features and offering a clearer understanding of the variables under investigation.

#### 4.3.1.1 Descriptive Analysis

The researcher offers a concise overview of essential descriptive statistics for five variables gathered from a sample of 110 participants. These variables consist of Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), Perceived Risk (PR) and benefits of adopting mobile payment (BE). For every variable, the table displays the minimum and maximum values, the mean, and the standard deviation. These descriptive statistics are crucial to the study as they illustrate the central tendencies and distribution characteristics of each variable clearly.

**Table 4.2: Descriptive Statistics**

Variable	Indicator	Mean	Standard deviation
Performance Expectancy	PE1	3.97	1.104
	PE2	4.08	.803
	PE3	4.07	1.029
	PE4	4.24	.928
	PE5	4.07	.945
<b>Overall</b>		<b>20.44</b>	<b>4.809</b>
Effort Expectancy	EE1	4.09	.773
	EE2	3.89	1.120
	EE3	3.99	1.088
	EE4	3.95	.994
	EE5	4.15	.811
<b>Overall</b>		<b>20.064</b>	<b>4.785</b>
Social Influence	SI1	4.03	.933
	SI2	3.91	.934
	SI3	4.20	.764
	SI4	3.68	1.075
	SI5	3.78	1.128
<b>Overall</b>		<b>19.60</b>	<b>4.83</b>
Facilitating Conditions	FC1	3.88	.955
	FC2	4.04	.867
	FC3	3.76	1.133
	FC4	4.05	1.070
	FC5	4.02	.986
<b>Overall</b>		<b>19.75</b>	<b>5.01</b>
Perceived Risk	PR1	3.24	1.219
	PR2	3.06	1.214
	PR3	3.36	1.163
	PR4	3.58	1.104
	PR5	3.69	1.269
<b>Overall</b>		<b>16.94</b>	<b>5.97</b>

#### **4.3.1.2 Regression Analysis**

The study utilized SPSS Version 25 to code, input and analyze the metrics of the multiple regressions derived from the survey. The coefficient of determination illustrates the degree to which variations in the dependent variable can be accounted for by changes in the independent variables or the percentage of variation in the dependent variable (the intention to adopt mobile payment with the researcher considering the benefits of adopting mobile payment as the dependent variable) that is explained by all four independent variables (Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC) and Perceived Risk (PR)).

#### **4.3.1.3 Model Summary**

Table 4.3 illustrates a consolidated model of the regression analysis regarding the intention to engage with mobile payment. The R-value of 0.22 signifies a weak positive relationship between the predictors (Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Perceived Risk) and the dependent variable (Advantages of mobile payment usage). The R Square value of 0.050 indicates that merely 5% of the variation in mobile payment adoption can be accounted for by these predictors. This small proportion underscores that these factors have a limited effect on influencing the intention to embrace mobile payment.

The Adjusted R Square value of 0.004, which is considerably lower than the R Square, accounts for the number of predictors and provides a more precise assessment of the model's explanatory capabilities. This statistic indicates that the model has very limited explanatory power. The standard error of the estimate,

measured at 0.21412, reflects a significant degree of variability in the predicted values, signifying that the model fails to capture the full range of the dependent variable's variance.

The Durbin-Watson statistic of 0.283 is well below the optimal value of 2, indicating a potential presence of positive autocorrelation in the residuals. This suggests that the residuals lack independence, which may compromise the model's reliability. In summary, these results indicate that while the predictors incorporated in the model provide some insights, they do not explain a substantial portion of the variation in the intention to use mobile payment, and additional factors not addressed in this study play a significant role in the variance.

**Table 4.3: Model Summary I**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.22	.050	.004	.21412	.283

**Source:** Field Study (2023)

- a. Predictors: (Constant), Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Perceived Risk.
- b. Dependent Variable: Benefits of adapting mobile payment

#### 4.3.1.4 ANOVA Results

Table 4.4 summarizes the outcomes of the ANOVA analysis concerning the regression model that estimates the intention to adopt mobile payment based on five essential predictors: performance expectancy, effort expectancy, social influence, facilitating conditions, and perceived risk. The regression sum of squares amounts to 0.249, indicating the variation accounted for by the model. With 5 degrees of

freedom, this yields a mean square of 0.050. The residual sum of squares is 4.768 with 104 degrees of freedom, resulting in a mean square of 0.046. This suggests that the model accounts for a very minimal amount of variance in the intention to purchase when compared to the unexplained variance.

The F-statistic is recorded at 1.085, which is relatively low, and the significance level (Sig.) is noted at 0.373, markedly surpassing the conventional threshold of 0.05. This elevated p-value indicates that the regression model does not demonstrate a notably improved fit compared to a model devoid of predictors. In simpler terms, the likelihood that the observed outcomes could emerge purely by chance is considerable, suggesting that the predictors lack a statistically significant connection with the intention to utilize mobile payment. These findings indicate that the model's explanatory capability is limited and fails to effectively capture the elements that influence the intention to embrace mobile payment.

**Table 4.4: ANOVA Results I**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.249	5	.050	1.085	.373
	Residual	4.768	104	.046		
	Total	5.017	109			

- a. Dependent Variable: Benefits of adapting mobile payment
- b. Predictors: (Constant), Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Perceived Risk.

**Source:** Field Study (2023).

Companies and researchers ought to explore additional variables or alternative models to gain a deeper insight into the factors driving mobile payment adoption. The low F-value coupled with the high p-value suggests that the predictors

incorporated in this model do not significantly affect the result, necessitating further exploration to uncover more pertinent factors.

#### 4.3.1.5 Regression Coefficients

The researcher identified coefficients which are presented in Table 4.5.

**Table 4.5: Regression Coefficients I**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.356	.168		2.113	.037
Performance Expectancy	.050	.039	.150	1.285	.202
Effort Expectancy	-.027	.037	-.087	-.724	.470
Social Influence	.055	.038	.175	1.436	.154
Facilitating Conditions	-.034	.036	-.113	-.938	.351
Perceived Risk	.015	.032	.048	.479	.633

a. Dependent Variable: Benefits of using mobile payment.

**Source:** Field Study (2023)

From the regression findings, the substitution of the equation:

$(Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon)$  becomes:  $Y = 0.356 + 0.050X_1 - 0.027X_2 + 0.055X_3 - 0.034X_4 + 0.015X_5 + \epsilon$

Whereby Y is the dependent variable; Benefits of using mobile payment

$X_1$ = Performance Expectancy

$X_2$ = Effort Expectancy

$X_3$ = Social Influence

$X_4$ = Facilitating Conditions

$X_5$ = Perceived Risk

Table 4.5 presents the path coefficients for the model assessing the influence of various predictors on the intention of using mobile payment. The unstandardized and standardized coefficients, along with their respective t-values and significance levels,

provide insights into the relative impact of each predictor. Firstly, the constant term ( $B = 0.356$ ,  $p = 0.037$ ) is significant, suggesting that other factors not included in the model may contribute to the intention to purchase. Among the predictors, Performance Expectancy has a positive but not significant impact ( $Beta = 0.150$ ,  $p = 0.202$ ), indicating that while it has a positive effect, it does not substantially influence the intention of using mobile payment. Effort Expectancy shows a negative and non-significant effect ( $Beta = -0.087$ ,  $p = 0.470$ ), suggesting that it does not significantly impact the intention of using mobile payment and may not be a critical factor in this model.

Social Influence illustrates a positive but statistically non-significant effect ( $Beta = 0.175$ ,  $p = 0.154$ ), which implies that although it has a constructive impact, it does not meet the criteria for statistical significance in relation to the intention to use mobile payment. Facilitating Conditions demonstrate a negative and non-significant effect ( $Beta = -0.113$ ,  $p = 0.351$ ), indicating that it does not meaningfully influence the intention to use mobile payment within this framework. Lastly, Perceived Risk presents a minor positive and non-significant effect ( $Beta = 0.048$ ,  $p = 0.633$ ), implying that it does not play a significant role in shaping the intention to embrace mobile payment.

Overall, the results indicate that none of the predictors in this model exert a notable direct influence on the intention to utilize mobile payment. The noteworthy constant term suggests that there are other elements impacting the intention to use mobile payment that this model has not accounted for. This indicates that further variables or an alternative model might be necessary to gain a clearer understanding of the

factors that drive mobile payment adoption.

#### **4.3.2 Research Objective Two**

The second objective of the study was to ascertain the relationship between demographic factors and mobile payment utilization. The adoption of mobile money payment served as a dependent variable, reflecting the advantages of utilizing mobile payment. The goal was to identify the impact of each factor on the adoption of mobile money payment. The connection between these factors and their adoption was examined through Multiple Regression to assess how each factor significantly influences the adoption of the mobile money payment system.

##### **4.3.2.1 Distribution of the Data**

The mean age score stands at 1.11, suggesting that a majority of participants belong to the younger demographic (with scores fluctuating between 1 and 2). The standard deviation measures 0.313, reflecting minimal variability. The skewness registers at 2.543, indicating a significant bias in the age distribution towards younger participants while the kurtosis of 4.547 signifies a highly peaked distribution characterized by a predominance of younger respondents. The average score is 1.21, which suggests that most respondents are single (with scores ranging from 1 to 3). The standard deviation is 0.430, showing some variability in marital status. The skewness is 1.797, indicating a moderate skew towards a particular marital status, likely single. The kurtosis is 2.191, showing a somewhat peaked distribution around specific marital statuses.

The average score is 3.41, indicating that most respondents have a higher level of education (with scores ranging from 1 to 4). The standard deviation is 0.625,

reflecting some variability in education levels. The skewness is -0.796, showing a tendency towards higher education levels. The kurtosis is 0.801, indicating a relatively flat distribution of education levels with no extreme concentrations. The average score is 2.33, suggesting a moderate perception of mobile payment companies (with scores ranging from 1 to 4). The standard deviation is 1.068, showing significant variability in opinions. The skewness is -0.137, indicating a nearly symmetrical distribution with a slight lean towards more negative views. The kurtosis is -1.426, reflecting a flat distribution with a broad range of opinions. In summary, the respondents are generally young (average age score 1.11), mostly single (average marital status score 1.21), and well-educated (average education level score 3.41), with varied and slightly more negative opinions about mobile payment companies (average score 2.33).

**Table 4.6: Descriptive Statistics Summary**

	Minimu	Maximu	Mean	Std.	Skewness		Kurtosis	
	m	m		Deviation	Statistic	Std. Error	Statistic	Std. Error
Age of the respondents	1	2	1.11	.313	2.543	.230	4.547	.457
Marital status	1	3	1.21	.430	1.797	.230	2.191	.457
Highest education level	1	4	3.41	.625	-.796	.230	.801	.457
Mobile payment companies	1	4	2.33	1.068	-.137	.230	-1.426	.457
<b>N 110</b>								

**Source:** Field Study (2023)

#### 4.3.2.2 Model Summary

The model summary illustrated in Table 4.7 demonstrates that the model accounts for (44.6%) of the variation in the benefits derived from mobile payment usage, influenced by the predictors: mobile payment companies, marital status, highest

level of education, and the age of the respondents. The elevated Adjusted R Square value of (42.5%) indicates that the model is fairly proficient in capturing the impact of these predictors on the perceived advantages of mobile payment. As a result, this implies that other factors not incorporated in this analysis contribute to (55.4%) of the variance in the advantages of utilizing mobile payment.

**Table 4.7: Model Summary II**

Mode 1	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.668	.446	.425	.16267	.526

- a. Predictors: (Constant), mobile payment companies, Marital status, Highest education level, Age of the respondents
- b. Dependent Variable: Benefits of using mobile payment

**Source:** Field Study (2023)

#### 4.3.2.3 ANOVA Results

ANOVA tests were run to determine whether there is a linear relationship between mobile payment companies, marital status, highest education level, Age of the respondents, and benefits of using mobile payment, and the results are shown in table 4.8

**Table 4.8: ANOVA Results II**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.238	4	.560	21.144	.000
	Residual	2.779	105	.026		
	Total	5.017	109			

- a. Dependent Variable: Benefits of using Mobile Payment
- b. Predictors: (Constant), mobile payment companies, Marital status, Highest education level, Age of the respondents

**Source:** Field Study (2023).

Based on the findings above, the ANOVA test results are extremely significant, with a p-value of .000, which implies that the factors associated with mobile payment

companies, such as marital status, highest level of education and the age of the respondents, have a considerable influence on the advantages of using mobile payment. This minimal p-value indicates that the results of the model are very dependable, affirming that the predictors work together to significantly explain the variation in the dependent variable.

#### 4.3.2.4 Regression Coefficients

**Table 4.9: Regression Coefficients II**

Model				Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	.552	.103		5.364	.000
	Age of the respondents	.142	.062	.207	2.298	.024
	Marital status	-.005	.044	-.009	-.101	.919
	Highest education level	.051	.025	.149	2.034	.044
	mobile payment companies	-.126	.015	-.626	-8.605	.000

a. Dependent Variable: Benefits of using mobile payment

**Source:** Field Study (2023).

From the regression findings, the substitution of the equation:

$$(Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon) \text{ becomes: } Y = 0.552 + 0.142 X_1 - 0.005 X_2 + 0.051 X_3 - 0.126 X_4 + \epsilon$$

Whereby Y is the dependent variable; Intention to purchase using mobile payment

X1= Age of the respondents

X2= Marital Status

X3= Highest Education Level

X4= Mobile Payment Companies

From Table 4.9 the regression analysis reveals that age and highest education level are significant predictors of mobile money payment adoption, both positively

influencing the likelihood of adoption ( $p < 0.05$ ). Specifically, as respondents age or attain higher education levels, their propensity to adopt mobile payments increases. Conversely, the presence of mobile payment companies has a significant negative effect on adoption ( $p = 0.000$ ), suggesting that an increasing number of such companies might be associated with lower adoption rates, possibly due to market saturation or other related factors.

Marital status does not significantly impact adoption ( $p = 0.919$ ), indicating it is not a relevant factor in this context. Based on this analysis, the predictors that significantly impact the adoption of mobile money payments are age, highest education level, and the number of mobile payment companies, with age and education level having positive effects and the number of companies having a negative effect. Marital status does not contribute significantly to the model.

#### **4.3.3 Research Objective Three**

To explore the challenges facing customers when using mobile payment: The study wanted to show the challenges facing customers when using mobile payment. The researcher used multiple responses to identify the challenges faced by respondents in using mobile payment services as in table 4.10; The findings revealed that the most prevalent issue was problems with mobile money agents, which affects 67 respondents, accounting for (22.9%) of the responses. This indicated that difficulties with agents, possibly related to availability or service quality, are a significant barrier to mobile payment adoption. Additionally, another major challenge was insufficient understanding of the services, reported by 63 respondents (21.0%). This suggests that a lack of knowledge or familiarity with how mobile payment systems

work is a common issue. Also, language barriers, affecting 52 respondents (17.3%), further complicate the effective use of these services, pointing to the need for better communication and support in multiple languages.

**Table 4.10: Challenges faced by Respondents in using Mobile Payment**

		Responses	
Challenges facing respondents		N	Percent
Challenges	Insufficient understanding of the services	63	21.0
	problems with mobile money agents	67	22.9
	technical issues	42	14.0
	lack of national ID	48	16.0
	language barrier	52	17.3
	inadequate of agents especially in remote areas	29	8.8
Total		300	100.0

**Source:** Filed Study (2023).

Furthermore, the findings revealed that lack of national ID, which impacts 48 respondents (16.0%), and technical issues, reported by 42 respondents (14.0%). Inadequate agents, especially in remote areas, was mentioned by 29 respondents (8.8%), highlighting the geographical disparities in service provision. These findings collectively underscore the diverse obstacles that hinder the widespread adoption and efficient use of mobile payment systems.

## **CHAPTER FIVE**

### **DISCUSSION OF THE FINDINGS**

#### **5.1 Introduction**

This chapter presents the discussions related to the findings; the fundamental goal of this study was to scrutinize the factors that govern the intention to implement mobile payment in Tanzania. The main goal of this research was to identify the contextual factors that impact the intention to adopt mobile payment within the Bukoba Municipal Council in Tanzania. To achieve this goal, three specific objectives were established to guide this study. These three objectives were to analyze the effect of contextual factors on mobile payment usage in Tanzania, examine the impact of demographic factors on mobile payment usage in Tanzania, and identify the challenges customers face when utilizing mobile payment.

#### **5.2 Discussion of Findings based on Demographic Characteristics**

Firstly, the research sought to explore the demographic traits of the participants. The results of the research offer valuable perspectives on the demographic and educational profiles of mobile payment users, emphasizing notable patterns in age, education and favored mobile payment solutions. The research initially reveals the age distribution of the respondents and the findings suggest that younger individuals (aged 18-34) are more inclined to utilize mobile payment services, aligning with the notion that younger generations are more technologically savvy and flexible.

Older individuals (35-64 years) may require more assistance with mobile payment systems. The prevalence of younger users is linked to their involvement in business and ease of adopting new technologies. This correlate with the study of Khomba,

(2021), the findings of this study have shown that young adults were the majority users of mobile payments. This could be because young people are the ones who are most likely to be technologically savvy and are happy to try new things (Khomba, 2021).

Furthermore, the research indicates that the researcher aimed to ascertain the marital status of the participants and the results demonstrate that the majority of the group were single, while a smaller segment of the respondents were married and an even smaller portion were widowers. The findings suggest that single respondents are more likely to utilize mobile money services compared to other demographics. This implies that single individuals tend to use mobile money services for transferring funds to friends, engaging in betting activities, enjoying leisure and settling utility bills.

Regarding education, the study found that individuals with secondary and post-secondary education were more inclined to adopt mobile payment services, indicating that educational background significantly impacts the acceptance of this technology. This suggests that the educational level can affect the willingness to use mobile payment services effectively. As observed from the results, the majority of the respondents were knowledgeable about how to use mobile payments.

This corresponds with the study by Maganga, (2019), on Factors Influencing the Adoption of Mobile Money Services. The data shows that the larger portion of the respondents had advanced education levels in terms of secondary and university level education, the fact that fifteen percent of the respondents that had adopted

mobile money services had primary level of education, none or any other level, could be an indication of the ease of use of mobile money services by all consumers regardless of their education levels (Maganga, 2019).

### **5.3. Discussion of Findings based on the Study's Objectives**

#### **5.3.1 The influence of Contextual Factors on the usage of Mobile Payment in Tanzania**

The findings revealed that the variables assessed performance expectancy, effort expectancy, social influence, facilitating conditions and perceived risk account for only a minor fraction of the variation in the intention to adopt mobile payment. The results demonstrated that these elements, when considered together, contribute only a limited amount to the variability in the intention to embrace mobile payments, implying that their effect is not substantial. This aligns with Wei's (2021) research, which indicated that performance expectancy, effort expectancy, perceived risk and facilitating conditions have a detrimental impact, reflecting the risk-averse tendencies of the younger generation in Taiwan.

Furthermore, social influence and perceived risk were not shown to significantly impact mobile payment adoption in this research, which is consistent with Kabata's (2016) study that examined the effect of social image on consumers' intentions to utilize mobile payment services. The outcomes indicated that social influence does not significantly affect consumers' intentions to adopt mobile payment services in Kenya (Kabata, 2016). Additionally, Khisa's (2023) research on the factors affecting consumer adoption of mobile wallet payments in Kenya found that perceived risk acts as a barrier to the adoption of mobile payment (m-payment).

### **5.3.2 The influence of Demographic Factors on the usage of Mobile Payment in Tanzania**

The second objective was to explore how demographic factors affect mobile payment usage in Tanzania. The results indicated that age and education level, along with the availability of mobile payment companies, play a crucial role in the adoption of mobile payments. In particular, younger individuals and those with higher educational qualifications are more inclined to utilize mobile payment solutions. This aligns with Vuduma's (2019) research on the factors influencing mobile banking adoption by commercial banks in Kenya, which found that individuals who are younger or possess advanced education are more open to embracing new technologies, such as mobile payments. This phenomenon is linked to enhanced digital literacy and greater financial resources within these demographics (Vuduma, 2019).

Conversely, the number of mobile payment companies in the market shows a significant negative impact on adoption rates. This counterintuitive finding suggests that market saturation or oversupply might dilute the perceived value or utility of mobile payment services, leading to lower adoption rates. Potential reasons could include consumer fatigue from too many similar services or confusion over which service to choose, thereby reducing overall adoption.

Marital status, on the other hand, does not have a significant influence on the adoption of mobile payments. This lack of effect suggests that a respondent's relationship status, whether single, married, or otherwise, does not significantly impact their propensity to embrace mobile payment solutions. This is consistent with

Banerjee's (2022) research on the Influence of demographic profiles in the adoption of digital payment systems in India: a multi-group variance analysis, which found that marital status did not significantly affect the adoption of mobile payments, indicating that a respondent's relationship status, whether single, married, or otherwise, does not play a critical role in their likelihood of adopting mobile payment solutions (Banerjee, 2022).

### **5.3.3 Challenges facing Customers when using Mobile Payment**

This section explains the findings based on the challenges facing customers when using mobile payment. The study highlights several significant challenges faced by customers when using mobile payment services. The most prominent issue was difficulties with mobile money agents. These problems likely relate to the availability and quality of service provided by agents, which hinders the effective adoption of mobile payments. Insufficient understanding of the services, reported by respondents, indicates a substantial gap in user knowledge about how mobile payment systems operate.

Additionally, language barriers complicate the use of mobile payment services and point to the necessity for multilingual support to enhance accessibility. Issues related to the lack of a national ID and technical problems were also notable .Furthermore, the challenge of inadequate agents in remote areas, mentioned by respondents, underscores geographical disparities in service provision. These findings are similar to the study of Raphael, (2020) on assessing the factors influencing the use of mobile payments on small and medium enterprise operations in Tanzania; a Case of Ubungo municipal. The finding is that not all Tanzanians can afford the use of mobile

payments, this is due to some challenges they face including high tariffs between mobile payment companies, others are not aware of the mobile (Raphael, 2020).

## **CHAPTER SIX**

### **CONCLUSION AND RECOMMENDATIONS**

#### **6.1 Introduction**

This chapter is divided into three sections: an introduction, a conclusion and recommendations. The chapter reaches conclusions that are derived from the study's findings. Following this, the chapter presents recommendations that stem from the conclusions drawn in the study. Lastly, the chapter offers suggestions for further research related to specific aspects of this study.

#### **6.2 Conclusions**

The study findings indicate that performance expectancy is a factor in adopting mobile payments; however, with a p-value suggesting no significant influence, it appears that users' expectations about the performance benefits of mobile payments do not play a substantial role in their adoption decisions. Similarly, effort expectancy, which reflects the perceived ease of use, does not notably affect users' willingness to adopt these services. Facilitating conditions also show no significant impact on the intention to adopt mobile payments, implying that the availability of necessary resources and support does not significantly influence users' adoption intentions.

Additionally, social influence has little effect on consumers' decisions to embrace mobile payment technologies. Perceived risk, with a p-value indicating no significant effect, suggests that concerns about potential risks associated with mobile payments are not major factors in users' adoption decisions. The study further explores the relationship between demographic characteristics and mobile payment

adoption, finding that in Tanzania, age and education level significantly affect adoption. Younger, more educated individuals are more likely to use these services, likely due to their greater digital skills and financial resources. Conversely, the presence of many mobile payment companies can discourage adoption, potentially leading to confusion or dissatisfaction among users. Marital status, however, does not appear to influence the likelihood of using mobile payments.

Moreover, the study identifies key challenges in using mobile payment services. Problems with mobile money agents affect a significant portion of users, highlighting the need for improved support and service. Many users also struggle to understand how mobile payments work, indicating a need for clearer instructions and education. Language barriers, technical issues, and challenges related to lacking a national ID further complicate usage. Lastly, the uneven distribution of agents, particularly in remote areas, limits access to services. Addressing these challenges could enhance the accessibility and usability of mobile payment systems for a broader audience.

### **6.3 Recommendations**

Because of the research findings, the research recommends the following;

#### **6.3.1 Money Agencies and Companies**

The money agencies such as Tigo, Airtel, Vodacom, and Halotel should understand the factors affecting the influence of mobile payment and understand their demographics. Also, since most of the respondents possess knowledge of how to use mobile payment services, agencies should strive to educate the mobile users on the

benefits that they would incur from taking up the services. The agencies also need to offer the best services to the current users to encourage those not using to use it.

Also, mobile agencies should improve agent support and training: Address the significant challenges related to mobile money agents by enhancing their training and support. Ensuring that agents are well-trained and equipped to provide high-quality service can help reduce the issues users face and improve overall satisfaction with mobile payment services. Additionally, mobile agencies and companies should develop APPS/USSD and implement comprehensive educational programs to help users understand how mobile payments work. This could include easy-to-follow guides, tutorials, and customer support resources that demystify the technology and improve user confidence.

### **6.3.2 Mobile Payment Users**

The respondents and final users should understand well the necessary information needed to engage in mobile payments. Respondents or customers should make sure that they learn about the usage of mobile payment.

### **6.3.3 Policy Recommendations**

The government of Tanzania should continue developing regulations that enhance the legal development of mobile payment solutions. The regulations would provide the required transaction features like security non-repudiation, anonymity, and divisibility among others, which will encourage mobile operators to develop mobile payment solutions with the hope that they will be embraced by the market. Also, the government agent NIDA should provide identification numbers of respondents since

lack of national ID was seen as a major challenge facing people. The government should make sure that people of the age of 18+ are registered and have their national IDs.

#### **6.4 Recommendations for Further Research**

The researcher recommends that further study be done to examine trends and perceptions in other sectors on the inefficiencies of mobile money services in their businesses or the impacts of factors influencing the use of Money payment. Also, Future research should investigate other factors that may influence mobile payment adoption beyond those studied, such as socio-economic status, technological familiarity, and regional differences.

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## APPENDICES

### **Appendix I: Questionnaire to Key Respondent**

I am **Brasio Innocent** pursuing Degree of Master of Business Administration (MBA) from The Open University of Tanzania. As a part of my studies, I am doing a research on **“Examination of factors influencing the intention to use mobile payment: A case on Bukoba Municipal Council**. In this regards, Dear respondent, I am kindly requesting you to respond to all questions in this questionnaire. Your answers will provide the researcher with necessary data for successful completion of his academic requirements. Research ethics will be strictly observed during the research process.

#### **Instruction (s)**

#### **Part One: Personal Details**

In this section please tick the appropriate box regarding your personal information

1.	Age
<input type="checkbox"/>	18-34
<input type="checkbox"/>	35-64
<input type="checkbox"/>	65 and above
2.	Marital Status
<input type="checkbox"/>	Single
<input type="checkbox"/>	Married
<input type="checkbox"/>	Widow/widower
3.	Highest Education level
<input type="checkbox"/>	No formal education

Primary school

Secondary school

Post-secondary education

4) Which mobile payment do you use often?

A.

Airtel money

B.

Tigopesa

C.

M-Pesa

D.

Halopesa

**Part two: factors influencing the intention to use mobile payments**

5) Please select and circle the most appropriate score [ranging from strongly disagree

(1), disagree (2), neutral (3), agree (4) to strongly agree (5)] for each statement that best represents your perceptions.

<b>A. Performance expectancy</b>	<b>5 Strongly agree</b>	<b>4 Agree</b>	<b>3 Neutral</b>	<b>2 Disagree</b>	<b>1 Strongly disagree</b>
01. I find mobile payment app useful in my daily life.					
02. Using mobile payment app helps me accomplish transaction.					
03. Using mobile payment increase my business.					
04. I can save time when I use mobile payment rather than normal payment process.					
05. Using mobile payment app improves my overall payment performance.					
<b>B. Effort expectancy</b>	<b>5 Strongly agree</b>	<b>4 Agree</b>	<b>3 Neutral</b>	<b>2 Disagree</b>	<b>1 Strongly disagree</b>
0.1 I find it easy to learn how to use a Mobile payment app.					
0.2 I feel the mobile payment is user-friendly.					
03. It is easy for me to become skillful at using Mobile payments.					
04. It does not take long for me to learn to use Mobile payments.					

0.5I find mobile payment systems easy to use.					
<b>C. Social Influence</b>	<b>5 Strongly agree</b>	<b>4 Agree</b>	<b>3 Neutral</b>	<b>2 Disagree</b>	<b>1 Strongly disagree</b>
01. Most people around me are using Mobile payments.					
02. People who are important to me suggest that I have to use a mobile payment app.					
03. If people around me (family/friends/colleagues) use Mobile payments, I will also try to use this service.					
04. You would use Mobile payments service if someone in the family uses it.					
05. You are interested or decided to use the Mobile payment service after observing the usage of others.					
<b>D. Facilitating conditions</b>	<b>5 Strongly agree</b>	<b>4 Agree</b>	<b>3 Neutral</b>	<b>2 Disagree</b>	<b>1 Strongly disagree</b>
01. I have the resources necessary to use Mobile payment.					
02. I have the knowledge necessary to use Mobile payment.					
03. I have proper network signal strength to complete my mobile payment transaction.					
04. I can get help from others when I have difficulties using mobile payments.					
05. Mobile payment are compatible with others technologies that I use such as Facebook , WhatsApp and etc.					
<b>E. Perceived risk</b>	<b>5 Strongly agree</b>	<b>4 Agree</b>	<b>3 Neutral</b>	<b>2 Disagree</b>	<b>1 Strongly disagree</b>
0.1 I consider any kind of online business, including mobile payment services, to be unsafe.					
02. I do not feel confident when I have to deal with an electronic technology instead of people,					
03. I think that manufacturers can control my data and have access to my personal information when providing remote support.					
04. Problems with servers will affect mobile banking experience.					
05. Entering misinformation or paying by mistake may lead to extra loss or missing amount of money.					

**Part three: Open-Ended Questions**

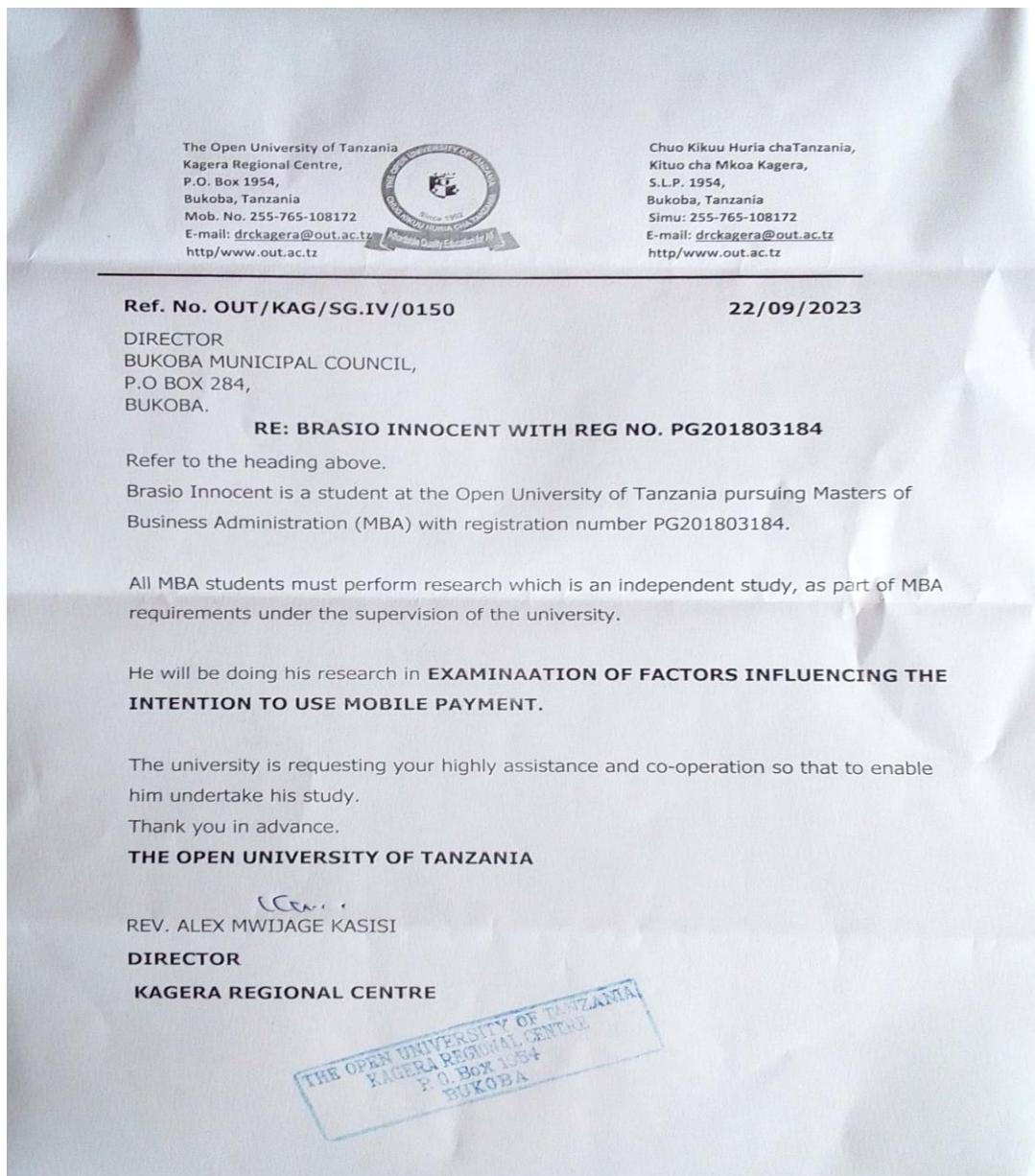
6) What are the benefits of using Mobile payment in daily activities?

- i. ....
- ii. ....
- iii. ....
- iv. ....
- v. ....

7) What are the challenges facing you towards using of mobile payment?

- i. ....
- ii. ....
- iii. ....
- iv. ....
- v. ....

## APPENDIX II: LETTER OF IDENTIFICATION



### APPENDIX III: RESEARCH PERMIT

