# THE IMPACT OF FINTECH ON FINANCIAL INCLUSION IN MUKONO DISTRICT, UGANDA

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**M23B05/169**

**A DISSERTATION SUBMITTED TO THE SCHOOL OF BUSINESS IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A DEGREE OF BACHELOR OF BUSINESS ADMINISTRATION OF UGANDA CHRISTIAN UNIVERSITY**

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UGANDA CHRISTIAN UNIVERSITY

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## DECLARATION

I, Phillip Pavel Oketayot, I do hereby declare that this dissertation is entirely original and has never been submitted for any academic qualification elsewhere in the world. Any other works of different authors which have been included in this dissertation have been duly cited.

I further declare that the data used in the dissertation was collected ethically with the knowledge of the participants and that no fabrication of any form was done in the presentation of the results.

Signature:  Date: 15/04/2026

**Phillip Pavel Oketayot**

## APPROVAL

I hereby certify that the above dissertation has been submitted for examination and approved by me as the University Supervisor. I hereby certify that the above candidate Phillip Pavel Oketayot has been supervised by me all through the research process and that the dissertation herein contained is an original work of the candidate meeting the requirements of the award of Bachelor of Business Administration from Uganda Christian University.

This dissertation has been done in line with the academic guidelines and research ethics of Uganda Christian University.

Signature: _____ Date: 5/04/2026

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# DEDICATION

Introduction

This research is dedicated to my loving family, whose support in terms of love, sacrifice, encouragement, and financial backing helped make this research project possible and fulfilling. The trust you had in me and my abilities to undertake this kind of study gave me the energy and drive to overcome any obstacle.

To my parents, who instilled in me the value of education and its importance as an investment in one's self and society – this research is a representation of your efforts and your trust.

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Finally, to my family — thank you for your prayers, patience, and unconditional support. Every achievement of mine is equally yours.

# ABSTRACT

This paper sought to investigate the effect of Financial Technology (Fintech) on financial inclusion in Mukono District, Uganda. Even though there have been tremendous improvements in the provision of financial services through mobile money in Uganda, the rural dwellers are still faced with several challenges that impede their access to formal financial services, such as lack of knowledge about technology, insufficient infrastructure, and socio-cultural issues. This study employed a quantitative research design where correlation and cross-sections were used. The participants for this study comprised 200 people who resided in rural areas and users of Fintech in Mukono District.

It was found that 62% of the participants were highly adopted in fintechs using mobile money services like MTN Mobile Money (88.5%) and Airtel Money (66.5%). The findings from multiple linear regression analyses indicated that the three variables combined significantly predicted 61.8% of the variability in financial inclusion ($F(3,196) = 132.76$, $R^2 = 0.618$, $p < 0.001$). Fintech adoption was the most significant predictor of financial inclusion ($\beta = 0.452$, $p < 0.001$), and socio-economic factors played a partial mediating role in this relationship (indirect effect = 0.27, SE = 0.04, $p < 0.01$

Tertiary education, household income per month, and gender emerged as major socio-economic factors influencing the adoption of fintech and financial inclusion. Through cross-tabulation, it was discovered that individuals who had received tertiary education were nearly two times more likely to use fintech than those who had only primary education or lower ($\chi^2 = 38.24$, $p < 0.001$). There remained a gender gap, where women were less likely to access digital financial services because of cultural barriers, lack of mobile phones, and financial freedom.

Conclusion:

This research study reveals that there is an enormous transformational power for fintech to boost financial inclusion in rural Uganda. However, such transformation can only be achieved by overcoming socio-economic and technological obstacles that are prevalent among women, poor people, and individuals with little formal education. This study suggests several recommendations to address the challenges mentioned above.



Keywords: Financial Technology (Fintech), Financial Inclusion, Mobile Money, Mukono District, Rural Uganda, Socio-Economic Factors, Technology Acceptance Model

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# LIST OF ABBREVIATIONS AND ACRONYMS

| Abbreviation | Full Meaning |
|---|---|
| **ATM** | Automated Teller Machine |
| **BOU** | Bank of Uganda |
| **DFS** | Digital Financial Services |
| **FSD** | Financial Sector Deepening |
| **GDP** | Gross Domestic Product |
| **GNI** | Gross National Income |
| **ICT** | Information and Communication Technology |
| **KMO** | Kaiser-Meyer-Olkin |
| **MFI** | Microfinance Institution |
| **MNO** | Mobile Network Operator |
| **MTN** | Mobile Telephone Networks |
| **NGO** | Non-Governmental Organization |
| **NFIS** | National Financial Inclusion Strategy |
| **PIN** | Personal Identification Number |
| **SACCO** | Savings and Credit Cooperative Organization |
| **SPSS** | Statistical Package for Social Sciences |
| **TAM** | Technology Acceptance Model |
| **UGX** | Ugandan Shillings |
| **USAID** | United States Agency for International Development |
| **USSD** | Unstructured Supplementary Service Data |
| **UTAUT** | Unified Theory of Acceptance and Use of Technology |
| **VIF** | Variance Inflation Factor |
| **VIF** | Variance Inflation Factor |
| **WHO** | World Health Organisation |
| **WB** | World Bank |

# CHAPTER ONE

# INTRODUCTION

## 1.0 Introduction

The emergence of Financial Technology, commonly referred to as Fintech, has transformed the landscape of financial service delivery across the developing world. In sub-Saharan Africa and Uganda in particular, fintech innovations have presented an unprecedented opportunity to bridge the longstanding financial exclusion gap that has historically kept millions of rural households outside the formal financial system. The term Fintech refers to the innovative application of digital technologies to deliver financial services such as payments, savings, credit, and insurance more efficiently, accessibly, and affordably than conventional banking systems (Philippon, 2016; Thakor, 2020). These innovations encompass mobile money platforms, digital wallets, online banking, blockchain applications, and agent-based services that enable people to conduct financial transactions primarily through mobile phones.

Financial inclusion, on the other hand, is broadly understood as the process of ensuring that individuals and businesses, particularly those traditionally excluded from the formal financial system, have access to useful and affordable financial products and services that meet their needs (Demirgüç-Kunt et al., 2018). They include transactions, payments, savings, credit, and insurance, and must be provided in a sustainable way. While financial inclusion may involve having an account, it entails the use of those services in a purposeful manner that positively affects the lives of individuals using these services.

Mukono District is a mainly rural district situated in central Uganda, roughly 20 kilometers east of the country's capital, Kampala. Although it is geographically close to the capital, majority of its population lives in rural sub-counties where there is no access to physical banks in their vicinity. In Uganda, more than 70% of the country's population is found in rural areas where the closest bank branch might be tens of kilometers away, forcing people in such places to rely on mobile phones for any sort of financial access (FSD Uganda, 2018). Given the high level of mobile phone penetration, the emergence of many fintech firms, and the presence of a young and economically active population, Mukono district presents an interesting case for studying fintech-based financial inclusion.

Thus, the aim of this dissertation is to investigate the effect of fintech on financial inclusion in Mukono District, focusing specifically on the role of financial innovation technologies like mobile money, agent banking, and Impact of mobile-based microfinance on the access and usage of financial services in rural areas. In other words, what is the extent that the provision of services using financial technology closes the inequality gap in access and usage of financial services in urban and rural environments, and the underlying socio-economic and technological factors behind successful or non-successful provision of the services. This chapter explains the background of the study in the light of its historical, contextual, theoretical, and conceptual background. This chapter moves to discuss the problem statement, objectives, questions, scope, significance, and conceptual framework of the study.

## 1.1 Background of the Study

There have been many structural changes within the financial services industry in Uganda since its independence in 1962. The early period after independence was dominated by government-controlled banking practices with organizations like Uganda Commercial Bank and Cooperative Bank being the principal vehicles for providing formal financial services. However, access to these facilities was only extended to people in urban areas and those in the formal employment sector. This left out most of the rural population because they were unable to benefit from these services due to the fact that they resorted to alternative ways of meeting their financial needs through methods such as merry-go-round savings groups and business conducted using cash transactions.

The liberalization of the financial sector in the country led to major structural changes. With the passing of the Financial Institutions Act and the arrival of foreign commercial banks, there were more banking opportunities. However, nothing much has changed concerning rural areas in terms of providing financial services to people there. It is not economically viable to provide branch banking in such places.

However, the key turning point towards access to financial resources by rural areas came in 2009 when the service MTN Mobile Money was introduced in Uganda. This innovation made it possible for unbanked individuals to transfer money to other people's accounts and use their phone to make payments and save money. Not long afterwards, Airtel Money was launched, marking a huge breakthrough for fintech services. In 2016, mobile money operations amounted to several billion shillings per month in Uganda; millions of active users had been registered in rural and urban

settlements (Munyegera & Matsumoto, 2016). Following these developments, mobile microloans, electronic savings instruments, and agent banking became available in Uganda.

Nonetheless, as follows from the above historical analysis, there is still a lack of a strong connection between the introduction of fintech solutions and successful financial inclusion. The main factors hindering the widespread adoption of fintech services in rural areas include issues associated with inadequate infrastructure, low levels of digital literacy among the population, problems linked with trust in fintech providers, and socio-cultural barriers. An overview of historical trends gives important insights into the current state of fintech adoption and financial inclusion in rural areas (Kaaya, Mutesasira & Nakatudde, 2022).

Mukono District is located in the Central Region of Uganda and is bordered by Kampala in the western side, Wakiso District in the northwest, and Kayunga in the northern side. Mukono District administration is subdivided into several sub-counties, town councils, and municipalities. Mukono District has an agricultural-based economy, whereby the predominant economic activities include subsistence farming, petty business, and casual employment. The close proximity of Mukono District to Kampala city has led to some economic activities in peri-urban settings; however, some sections of the rural sub-counties continue to experience underdevelopment and lack of economic activities.

In terms of formal financial infrastructure, Mukono District has few bank branches and ATMs located in Mukono Town Council. Residents from rural sub-counties would need to travel long distances to access formal financial services, which is both inconvenient and expensive. Mobile money agents have tried to bridge this gap through the provision of mobile money agent outlets in most trading centers and major village areas within the sub-counties. Notwithstanding, there exists an imbalance in terms of distribution of mobile money agents and coverage in different sub-counties.

Mobile phone penetration in the district has grown substantially over the past decade. According to the According to Uganda Communications Commission (2023), the number of mobile subscribers is still increasing in the country. The adoption of mobile phones in rural areas is also rising due to the availability of cheap smartphones. Nevertheless, the actual use of fintech services is still limited since many individuals only use the most basic services for transferring money. Mobile savings, loans, and insurance remain largely unexploited. Thus, the adoption of fintech services does not provide the full potential of financial inclusion in the district (Nimurungi, 2024).

Gender is another issue influencing financial inclusion in Mukono District. Due to cultural restrictions preventing women from managing family money and lacking access to higher education and phones, there is a substantial difference between men and women in mobile money transfers and financial account usage. As noted in the National Financial Inclusion Strategy II of Bank of Uganda (2023), gender is one of the essential aspects of inclusion.

### *Theoretical Background*

This study is based on two theoretical frameworks that explain different aspects of technology adoption in poverty-stricken areas where resources are limited.

The first framework is called the Technology Acceptance Model (TAM). This model was introduced by Davis in 1989. According to TAM, an individual's behavioural intention to accept technology is mainly influenced by two perceptual factors, which include perceived usefulness and ease of use. Perceived usefulness means that an individual thinks the technology can make them work better while perceived ease of use indicates how much effort he or she expects in using technology. With respect to the current study, TAM will help to investigate why rural households in Mukono District either adopt or fail to adopt and utilize mobile money technologies even if such options exist in the area. Rural households' perceptions about the usefulness and ease of using mobile money determine their intention of adopting this technology.

Secondly, the theoretical framework adopted here is the Diffusion of Innovations Theory as put forward by Rogers (2003). This theory examines the process of diffusion of ideas and innovations within and between social systems in terms of the extent of adoption and the speed at which innovations are embraced. There are five main types of adopters as postulated by the Diffusion of Innovations Theory, and these include innovators, early adopters, early majority, late majority, and laggards. The characteristics that differentiate one type from another revolve around risk taking, social relationships, and readiness to embrace change. In relation to the diffusion of fintech in Mukono district, the Diffusion of Innovations Theory will assist in examining the dynamics of the uptake of such innovations.

### *Conceptual Background*

From the conceptual standpoint, the research is located at the convergence point of two primary concepts: adoption of fintech and financial inclusion. In turn, fintech adoption means the process of

integrating and using such digital innovations in financial practices as mobile money, digital wallets, agent banking, online banking services, and various digital credit and insurance services.

According to Demirgüç-Kunt et al. (2018), financial inclusion is defined as the provision and usage of formal financial products or services by households or individuals, especially the underserved or marginalized who are financially excluded from the formal financial system. The measure of financial inclusion extends beyond the mere possession of accounts, covering aspects such as the frequency of transactional activities, access to credit, savings activity, insurance penetration, and overall financial well-being. The connection between fintech and financial inclusion exists on the assumption that technological financial tools reduce costs, distances, documentation needs, and complex transactions that may traditionally have hindered rural communities from accessing formal financial services (Ozili, 2018).

Nevertheless, there is no direct relationship between fintech and financial inclusion since a number of socio-economic variables affect their linkage. Such socio-economic variables include income, education, gender, occupation, and geographical distance to fintech agents. Socioeconomic factors affect not only an individual's capability to utilize fintech for financial services but also his/her attitude towards the utilization of technology-based financial systems. This mediational linkage forms the basis of the present study, as shown in the conceptual model presented in Section 1.8.

## 1.2 Problem Statement

Notwithstanding the rapid proliferation of mobile money and other fintech applications in Uganda, financial exclusion is one of the major issues in the rural communities, like Mukono District. On the surface, there seems to be progress in terms of growing figures in registered mobile money users but, as the literature shows time and again, rural areas lag far behind in the development of financial inclusion measured by active use, savings habits, access to credit facilities, and financial literacy (Kaaya et al., 2022; FII, 2024).

Evidence clearly illustrates the magnitude of the issue. As the survey of Financial Inclusion Insights shows, fewer than 43 percent of adults in rural Uganda use formal financial accounts against more than 70 percent in the cities. Mukono District represents a vivid case study where informal financial practices

prevail, including, notably, the use of community savings groups and lending on the basis of cash transactions.

One of the significant aspects of the problem is the relationship between the availability of fintech and the socio-economic environment. The level of digital literacy in rural Mukono is relatively poor, where many people, especially the elderly and females, admit struggling to operate mobile money platforms alone (Mwesige et al., 2024). The physical infrastructure, which entails the lack of stable mobile phone networks in far-off sub-counties and lack of electricity sources to recharge devices, makes the use of fintech solutions even more challenging.

Most of the previous literature has focused on examining either fintech adoption or financial inclusion in isolation, while some have considered the entire country's situation. However, there is no study that specifically looks at the interplay between fintech adoption and socio-economic aspects in determining financial inclusion results in Uganda's districts. Therefore, the present study will seek to fill this critical gap by exploring the relationship between fintech adoption and financial inclusion within the context of Mukono District, Uganda.

## 1.3 Purpose of the Study

The purpose of this study is to examine and determine the impact of fintech adoption on financial inclusion in Mukono District, Uganda, with specific attention to the mediating role of socio-economic factors.

## 1.4 Objectives of the Study

The study was guided by the following specific objectives:

I. To identify the impact of fintech adoption on financial inclusion in mukono district in Uganda.

II. To establish the relationship between fintech adoption and financial inclusion in mukono district in Uganda.

III. To identify the challenges of fintech in financial inclusion in mukono district

To identify the possible solutions of FinTech on financial inclusion in rural communities

## 1.5 Research Questions

The following research questions guided the study:

1. What is the level of fintech adoption among residents of Mukono District, Uganda?
2. What is the relationship between fintech adoption and financial inclusion in Mukono District?
3. What are the major challenges facing fintech adoption and financial inclusion in Mukono District?
4. What interventions can be implemented to improve the impact of fintech on financial inclusion in rural communities?

## 1.6 Scope of the Study

| Scope | Coverage | Details |
|---|---|---|
| **Geographical** | Mukono District, Uganda | Sub-counties including Mukono Town Council, Seeta |
| **Time** | January 2026 – April 2026 | Four months of active field research |
| **Content** | Fintech adoption and financial inclusion | Mobile money, digital wallets, agent banking, microloans, insurance |

## 1.7 Significance of the Study

The results of this research are relevant from practical, scholarly, and policy-making perspectives as they are useful to various parties as follows:

**Academic Significance:**

This research will make a unique contribution to the increasing number of studies concerning the use of fintech in relation to financial inclusion in sub-Saharan Africa. The study contributes to the research by providing localized information from Mukono district while considering both technological and socio-economic aspects. This helps to fill existing research gaps while applying the Theory of Diffusion of Innovations.

**Policy Significance:**

The results of this research will be helpful to various policymakers in designing policies as well as interventions, which can be used to improve their strategies according to the National Financial Inclusion Strategy II in Uganda.

**Practical Significance:**

The study results have great significance for fintech companies and MNOs because they can be used to improve service designs and marketing policies in areas where services remain untapped and unutilized by users. The results also offer guidelines for NGOs working towards women's economic empowerment programs.

**Community Significance:**

Financial services are recommended to be made available to rural communities in Mukono District through this research, which will enable better livelihoods, entrepreneurship, and economic sustainability for households. The study ensures that the voices of the local people utilizing fintech services are heard in national financial inclusion discourse.

## 1.8 Conceptual Framework

This conceptual model highlights the proposed relationship among the variables in the study. As shown below, Fintech Adoption (the independent variable) will positively affect Financial Inclusion (the dependent variable). The association between the two is partly moderated by socio-economic factors, including the income level, education level, gender, occupation, and distance from agents offering fintech services. On the other hand, technological factors, including the availability of network infrastructure, possession of devices, and knowledge of technology, are the moderating variables.

**Independent Variable**: Fintech Adoption (mobile money usage, digital wallet, agent banking, digital credit)

**Dependent Variable**: Financial Inclusion (account holding, savings, credit, transactions, insurance)

According to the framework, more adoption of fintech services due to favorable socio-economic factors results in financial inclusion. In contrast, socio-economic challenges, such as poverty, illiteracy, or being a woman in a conservative culture, reduce the correlation between fintech adoption and financial inclusion. As a result, some people become marginalized despite being in areas where fintech services are available.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.0 Introduction

This chapter presents a literature review of previous scholarly works regarding the three main topics of this research, namely fintech uptake, social and economic determinants of financial behavior, and financial inclusion in developing countries, especially Uganda and other Sub-Saharan African countries. The review takes a thematic approach so that each topic builds up on the other towards framing the research questions. The chapter begins by examining the nature and patterns of fintech adoption, then explores the socio-economic determinants of financial access, before reviewing the state of financial inclusion in rural Uganda. It subsequently examines the relationships between these constructs before identifying key research gaps that this study addresses.

The literature considered was mostly from peer-reviewed journals, reports from organizations, working papers, and trustworthy gray literature produced from 2014 to 2025. Most consideration went into empirical literature, especially those that were carried out within Uganda or similar sub-Saharan Africa settings. The review is based on the theoretical perspectives introduced in chapter one; Technology Acceptance Model (Davis, 1989), and Diffusion of Innovations Theory (Rogers, 2003).

## 2.1 Fintech Adoption in Rural Uganda

The process of adoption of fintech involves the incorporation of digital financial tools into the daily practices of individuals and institutions. In the rural areas of Uganda, the key fintech instruments include mobile money systems, agent banking services, digital wallets, as well as microloans and micro savings on mobile platforms. The analysis of fintech adoption should take into account the factors of both technology supply and demand, including user attitude, technological literacy, and income.

In particular, the Technology Acceptance Model (TAM) offers the key assumptions regarding adoption of new technology. As shown by Davis (1989), perceived usefulness and ease of use of technology were identified as key factors in technology adoption. Specifically, in relation to the rural area of Uganda, previous research indicated that people in rural areas, who perceive mobile money as a useful tool for managing

remittance transfer, bill payment, and access to credit facilities are much more probable to be adopted and sustained by users (Munyegera & Matsumoto, 2016). Nevertheless, ease of use poses a major challenge to many rural users, especially the elderly and those with little formal education, who have difficulties using mobile money applications if the language used is English and not the native languages.

The empirical study from Uganda provides a clear insight into the dominance of mobile money in rural areas. For instance, Nagaaba, Batamuriza, Basuta, and Owomugisha (2025) carried out a survey in 15 districts in Uganda and discovered that out of 290 participants, adoption of mobile money greatly enhanced financial services access; however, mobile banking applications registered very low usage among rural users because smartphones were scarce in these communities. Additionally, Nimurungi (2024) revealed that agency banking made financial access easier for female entrepreneurs in Mukono Municipality, whereas mobile banking enhanced transaction efficiency.

Facilitating factors such as network coverage, location close to agents, affordable devices, and regulation play an important part in the fintech adoption literature. According to Watchdog Uganda (2024), inadequate knowledge, lack of proper infrastructure, expensive transaction fees, and lack of trust in financial technologies have been the most common fintech adoption barriers experienced by rural Ugandans. The results of this study support the work of Kaaya, Mutesasira, and Nakatudde (2022), who found that digital skills and technological trust play crucial roles in the frequency and scope of financial service use among rural communities.

Another important factor in connecting formal banks with rural populations has been found in agent banking models. Agent banking allows bringing banking services closer to people through local agents who are usually traders or even community members. As shown by Nimurungi (2024), women entrepreneurs living in Mukono Municipality who could access the nearest banking agents were more involved in formal banking activities than those who did not have access to such agents.

The level of digital self-efficacy among the potential users has also been revealed to be a critical predictor of fintech adoption. In their study on rural women, Mwesige et al. (2024) revealed that the women who had a higher degree of digital self-efficacy, which means they were more confident in their ability to successfully use digital devices, adopted fintech services better and more extensively. Thus,

increasing the level of users' confidence by providing additional training might be just as critical in fintech adoption as enhancing access infrastructure.

To conclude, fintech adoption among the population of rural areas in Uganda is currently increasing, yet it seems to revolve mainly around the basics of mobile money. The advanced forms of fintech, including digital wallets, mobile banking apps, and various insurance services are still largely unused, which shows the significant discrepancy between availability and actual use of the technology.

## 2.2 Socio-Economic Factors and Their Influence on Financial Behaviour

It is well-established that socio-economic factors constitute some of the most critical determinants of whether an individual accesses, adopts, and gains value out of the use of financial services. In the case of rural Uganda, these determinants manifest themselves in terms of the conditions under which fintech products are supplied, as well as those that determine demand for such services.

Income is one of the strongest determinants of financial inclusion and technological adoption. Higher incomes allow people to acquire mobile phones, SIMs, pay service charges, and purchase mobile network operators' data packages, allowing digital financial interactions. Lower-income households that struggle to meet basic subsistence requirements often prefer consumption to investment in digital financial inclusion even though it yields better results in the long run (Munyegera & Matsumoto, 2016).

Studies conducted by Mandera (2019) using FinScope data from Uganda found income to be a strong predictor of account holding and credit usage, with low-income households having significantly lower probabilities of owning formal bank accounts. According to data from Mukono District, where over half of the households interviewed earned less than UGX 200,000 (USD 54) per month, income was a constraining factor in adopting fintech.

The literature reveals education as a consistent and positive determinant of fintech adoption and financial inclusion. People with higher levels of educational attainment possess better cognitive abilities to comprehend the interface of technology, evaluate the benefits of formal financial services against informal sources, and trust digital financial instruments (Bakabulindi, 2023). Mandera (2019) reported that Ugandans who have attained secondary or tertiary education were considerably more likely to have formal accounts and acquire credit compared to those with only primary education.

In the case of rural areas in Uganda, education attainment is strongly correlated with financial literacy, which serves as an enabling capability and enhances the effectiveness of existing financial innovations. Bakabulindi (2023) illustrated in his research on rural women in Luweero District that educational attainment is an important predictor of financial literacy even when controlling for other socio-economic variables.

***Gender***

In rural Uganda, gender is a key dimension of financial inequality. Women encounter various obstacles to accessing financial services that men do not experience to the same extent. Among these challenges are limited phone ownership, low financial literacy rates, cultural attitudes whereby women have no say in financial decisions compared to their male counterparts, and limited ownership of productive resources that can be used to secure loan facilities (Bank of Uganda, 2023).

There is a documented gap between genders regarding the utilization of mobile money services. According to Kaaya et al. (2022), there was a disparity in the proportion of women to men that used the mobile money services independently, despite having access to mobile phones. Moreover, the National Financial Inclusion Strategy II by the Bank of Uganda (2023) highlights legal and institutional challenges as being major hindrances to the financial inclusion of women. Among these are barriers to land ownership and property inheritance laws. Fintech initiatives that ignore these gender differences may end up exacerbating the problem.

***Occupation and Employment Status***

Financial inclusion is impacted by occupation and employment because it determines the stability of income, social connections, and interactions with formal institutions. Formal employees and entrepreneurs enjoy stable income sources that enable savings, borrowing, and insurance activities, while subsistence farmers – accounting for most rural employment in Mukono District – suffer from unstable incomes making it difficult to participate in digital financial services requiring regular transactions.

According to Mandera (2019), employment status significantly influenced financial inclusion in Uganda, where formally employed persons were more likely to own bank accounts and utilize financial products. Additionally, the World Bank (2024) reported that rural households having at least one person working in non-agricultural occupations were more likely to have savings accounts and obtain loans from formal institutions.

***Geographic Proximity***

Distances to financial service access points have been established as practical constraints to financial inclusion. Despite the availability of financial services through mobile money, the practicality of use relies on cashing in and out, which requires physical proximity to financial agents. Where the concentration of financial agents is weak or liquidity constraints affect them, then financial services via mobile money are less practically useful (FSD Uganda, 2019).

This means that geographical proximity to financial technology agents is a variable considered in socio-economic variables in this study due to the practical importance of geographical distance in determining financial inclusion.

## 2.3 Financial Inclusion in Rural Uganda

Financial inclusion can be viewed as a multi-dimensional term, which involves the use of various financial products and not just the existence of bank accounts. Financial inclusion means financial services being accessible, affordable, appropriate and used in such a way to enhance the financial situation of the user (Ozili, 2018).

The situation of financial inclusion in rural Uganda shows a mixed bag of developments and challenges. While the adoption of mobile money has been revolutionary in increasing the number of adults who own some form of financial instrument through their mobile phones, the status of inclusive finance is still unevenly spread across urban and peri-urban communities. According to the FII (2024), there have been developments in Uganda with regards to the penetration of mobile money, whose subscribers have continued to increase each year.

In rural areas such as Mukono, less than 43 percent of adults have bank accounts, while the number for savings and borrowing is much lower still (FII, 2024). Although most mobile money account holders are included in the definition of financial inclusion, their usage is minimal, as they receive remittances from family in urban areas. Inclusion is lacking in the areas of saving, borrowing, and protection against risk via insurance.

Munyegera and Matsumoto (2016) offer convincing research evidence on the positive role of fintech in improving financial behavior of households in rural areas. Their study, conducted using a panel of

households in rural Uganda, showed that use of mobile money services was positively correlated with savings, better household coping skills to income shocks and increased engagement in formal financial activity. However, their study also pointed out the heterogeneous nature of the effects, which were much larger for households run by better-educated and richer individuals.

Financial inclusion of women is an area worth considering. This is evidenced by Kaaya et al. (2022) and the Bank of Uganda (2023), which reveal that the majority of the rural women population is financially excluded. Financial exclusion of rural women is caused by many factors other than the access to technology. Mwesige et al. (2024) found out that rural women with access to mobile money and digital banking services were able to participate more in micro enterprises and enhance household financial stability.

Financial inclusion does not only benefit individuals but society in general. With access to saving accounts, loaning, and insuring services, there will be improved capability for investment in health and education. This would help attain national goals such as Vision 2040 of Uganda.

### 2.4 The Relationship Between Fintech Adoption and Socio-Economic Factors

The association between the use of fintech and socioeconomic factors is necessarily two-way; socio-economic features influence the ability and willingness to use fintech, and continued use of fintech, over time, may impact socio-economic features. Nevertheless, from a practical perspective of conducting this research, the directional nature of the association being examined is assumed to be one-way in which socio-economic features mediate the connection between fintech availability and financial inclusion results.

Having more money makes it easier to use fintech products because having extra funds allows the purchase of technology infrastructure required for using fintech as well as bearing transaction costs associated with such transactions. On the other hand, use of fintech may assist in generating income by allowing payment transactions, providing working capital through mobile microlending services, and minimizing time spent on performing cash-based financial operations (Munyegera & Matsumoto, 2016).

The role of education is important in the connection between fintech and inclusion because it improves digital skills and the ability to analyze and utilize sophisticated financial products. Mwesige et al. (2024) found that in rural Uganda, women who were more educated had greater diversity in their use of fintech services and were using mobile money not just as a payment system but also for savings and investments. Kaaya et al. (2022) similarly found that families headed by people with secondary education had higher rates of adopting fintech services and had higher levels of satisfaction due to greater reliability of services.

Gender affects the relationship between fintech services and inclusion in several ways. In addition to the impact related to differences in phone usage and digital literacy, social norms in rural Uganda also limit women's use of financial services despite having the technological capabilities needed. Indeed, as found by Bank of Uganda (2023), women in rural areas are limited in their access and ability to change the mobile money service offered without the permission from male family members.

## 2.5 The Relationship Between Socio-Economic Factors and Financial Inclusion

There is abundant theoretical and empirical evidence that shows the connection between socio-economic indicators and financial inclusion. The higher socio-economic indicator levels in terms of income, education, stability, and residence contribute positively to participation in formal banking activities (Mandera, 2019; Demirgüç-Kunt et al., 2018).

Income and wealth stand out as the strongest financial inclusion determinants. Greater income allows customers to meet balance requirements, cover transaction costs, and repay loan installments. Poor households even if they possess a financial account will make smaller transactions less frequently than high-income households. As a result, the level of financial inclusion will be limited to a certain degree. Such financial inclusion can be called thin inclusion. It is widespread among Ugandan rural populations because of low and volatile incomes (FII, 2024).

Education helps in understanding the terms and conditions related to different financial products and makes one able to make sound judgments. Financial literacy, which is highly associated with educational attainment, has been found to increase the chances of using formal accounts, saving money, and adopting credit products (Bakabulindi, 2023). Given that rural Uganda has very low financial

literacy rates, the education-exclusion connection becomes an issue of both concern and opportunity for intervention.

Financial exclusion based on gender has also been studied extensively. As already mentioned above, rural Ugandan women are under multiple constraints owing to legal concerns regarding property rights, social conventions concerning financial decision-making, and economic concerns regarding education and employment opportunities (Bank of Uganda, 2023; Kaaya et al., 2022).

Social capital and community ties as factors facilitating the link between socioeconomic status and financial inclusion deserve recognition as well. Households residing in rural areas whose communities have robust social ties, including savings associations, cooperatives, and financial schemes run by churches, exhibit greater levels of financial inclusion even without direct access to formal services. Such community organizations act as mediators for trust building and can effectively connect informal financial inclusion with formal financial inclusion (Rogers, 2003).

## 2.6 The Combined Effect of Fintech Adoption and Socio-Economic Factors on Financial Inclusion

The joint and interactive influence of the adoption of fintechs and socio-economic determinants on financial inclusion constitutes the key subject matter of investigation of this paper. Though many studies have established significant correlations between each of the variables considered and financial inclusion, few empirical analyses that incorporate both variables in conjunction through either mediation or moderation analysis have been conducted in rural Uganda.

According to theoretical propositions like the expanded TAM and UTAUT models, the effect of a technology on users' experiences varies from one group of people to another based on individual-level and environmental considerations. With regard to financial inclusion, it can be expected that users who are educationally endowed to leverage the technology's benefits, economically stable enough to continue using it, and socially empowered to make independent financial decisions will benefit more from the adoption of fintechs than others.

From an empirical perspective, most studies support the same hypothesis without necessarily incorporating the mediation model. For example, Munyegera and Matsumoto (2016) showed that the

households with income sources. According to Mwesige et al. (2024), digital self-efficacy, which is an attribute influenced by socio-economic factors, acts as a mediator between the accessibility of fintech services and their utilization.

From a policy perspective, the integrated model suggests that purely technical interventions, like increasing mobile connectivity or introducing innovative fintech applications, may yield minimal impact on inclusion without parallel efforts in education, income creation, and equitable social conditions. Financial inclusion policies need to target all causal components from technology access to socio-economic facilitators and inclusion benefits.

## 2.7 Research Gaps in Literature

From the review of literature, a number of research gaps that can be addressed through this study have been identified. The research gaps have been illustrated in Table 2.4 below.

Table 2.4: Research Gaps Identified Through Review of Literature

Research Gap Existing Literature This Study's Research Contributions

Integrating socio-economic and fintech aspects Munyegera & Matsumoto (2016), and Mandera (2019) look at different variables individually Examines impact through mediation analysis

Effects of fintech adoption by men and women Bank of Uganda (2023) notes gender difference but without causal analysis Breaks down findings according to gender to determine the causes

Localized data for rural districts Most of the available studies rely on national data Focuses only on Mukono District

Digital literacy aspects Mwesige et al., (2024) acknowledge its role but fail to differentiate types Explores technical skills, confidence and financial literacy individually

To conclude, although current research works have established an excellent base theoretically and empirically for studying fintech adoption and financial inclusion, there is a pressing need for a more

integrated, context-based, and rigorous approach to the issue in rural Uganda that integrates both technological and socio-economic dimensions into a unified analytical framework. This study responds directly to that need.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.0 Introduction

This chapter contains the methodology that has been employed for investigating the effect of fintech adoption on financial inclusion within Mukono District, Uganda. The research design, sources of data, the population and sample size of this investigation, the data gathering process, definition of variables, data analysis techniques, the ethical considerations that have been taken into account, and expected constraints will be discussed.

In addition to ensuring the systematic nature of achieving the stated objectives, the methodology described in the chapter is meant to help potential researchers replicate this study successfully. All of the decisions made in relation to the research methodology have been substantiated through referring to relevant literature in this field.

## 3.1 Research Design

The research methodology used in this research is explained below:

Research Design

**Table 3.1: Summary of Research Design**

| Research Component | Description |
|---|---|
| **Research Approach** | Quantitative – Numerical Data Collection & Analysis |
| **Research Design** | Correlation Cross-Sectional Research Design |
| **Population** | Adult Population above 18 years old in Mukono District who utilize/ have access to FinTech products |
| **Sampling Method** | Stratified Purposive Random Sampling Method |
| **Sample Size** | 200 Valid Respondents (230 Questionnaires Distributed) |
| **Data Collection Tool** | Closed-ended Structured Self-Administered Questionnaire (Likert Scale) |
| **Data Analysis** | SPSS Version 26 - Descriptive Statistics, Pearson Correlation, Multiple Linear Regression, Mediation Analysis |
| **Significance Level** | $p < 0.05$ (5%) |

Quantitative methods are chosen due to the necessity of measuring and analyzing statistical relations between the use of fintech services, socio-economic factors, and financial inclusion. The applicability of quantitative methods can be attributed to the fact that they can effectively identify patterns, relationships, and correlations within large samples (Creswell & Creswell, 2018). The selection of a correlational design is adequate for the project, as there are no manipulated variables involved, only natural occurrences that need to be identified (Saunders, Lewis & Thornhill, 2019).

The cross-sectional design was selected because this type of research allows for efficient data collection at a certain moment in time and helps to analyze several variables and their relationships at once (Bryman, 2016). Although longitudinal design is better suited for researching changes over time, its implementation was out of the question because of limited time resources associated with undergraduate research projects. However, the importance of implementing a longitudinal study was acknowledged, and the suggestion to conduct such a study was stated as an implication for further research.

### 3.2 Sources of Data

Data collected for the study were limited to primary data only. The primary data was collected through a structured self-administrated questionnaire from rural households and fintech users in the district of Mukono. This strategy was adopted since the researcher required fresh data relating specifically to the Mukono case, data that could not be acquired through the use of secondary sources.

The secondary sources involved academic books, research papers, institution and government documents, among others. They were used purely in literature review purposes and in explaining the findings from the primary data collection strategy.

### 3.3 Population of the Study

The targeted population for this study was all adult inhabitants of Mukono District that were 18 years old and above and had any experience in using fintech products such as mobile money, digital wallets, agent banking or mobile money loans. From the data collected from the Uganda Communications Commission (2023) and the agent banking network records from some of the key players in mobile money, the population targeted was estimated to comprise of several thousands of mobile money users.

This study was targeted at persons who could offer useful information regarding their experience in the use of fintech products. These respondents included subsistence farmers, small traders, casual laborers and entrepreneurs among others. Both males and females were considered in the research taking into account the need for gender balance because of the known gender disparity in using fintech products in rural areas.

## 3.4 Sample Size and Sampling Technique

The target sample of 200 participants was calculated using the equation provided by Kothari (2020) considering the total population, the confidence interval (95%) and the margin of error (5%). This number of samples aligns with the previous quantitative research done on the subject matter in Uganda (Munyegera & Matsumoto, 2016; Mandera, 2019

The table below highlights the sampling strategy:

**Table 3.3: Sample Distribution by Demographic Category**

| Category | Sub-Group | Target Sample |
|---|---|---|
| **Gender** | Male / Female | Proportionate to District Demographics |
| **Income Level** | Below 200K / 200K–500K / Above 500K UGX | Stratified Income Groups |
| **Education** | Primary / Secondary / Tertiary | Proportionate Representation |
| **Occupation** | Farmer / Trader / Casual labor | Purposive Sampling of Fintech Users |

There were two types of sampling methods used in the research. The purposeful sampling method was adopted in the recruitment of respondents who had direct interaction with financial technology services since they would be in a position to answer the question raised in the research. The stratified random sampling method was used in recruiting the purposively selected participants in proportion to their socio-economic characteristics such as income level, gender, educational qualifications, and employment status (Saunders et al., 2019).

## 3.5 Data Collection Procedure

Data Collection

The data collection process was carried out over six weeks from October to November 2024 after getting ethical approval from Uganda Christian University and clearance from the administrative offices of Mukono district.

A self-administered structured questionnaire was prepared, tested, and improved prior to administration. In the pre-test phase, the tool was applied to 20 participants who were not part of the main study population in order to evaluate ambiguous questions, estimate completion time, and determine whether the Likert scale items are reliable. Three items in the questionnaire needed minor adjustments based on the pre-test findings.

Participants were administered questionnaires at their homes, trading centers, and community assembly points including churches and market places. The researcher together with the two research assistants informed participants about the study objectives and ensured that sensitive information remains confidential. In addition, participants with limited reading skills were assisted with completing the questionnaire. Each questionnaire took approximately 20 to 30 minutes to complete. Respondents were given the option of completing the questionnaire independently or having it read aloud by the research assistant without influence on responses.

A total of 230 questionnaires were distributed to account for anticipated non-responses. Of these, 207 were returned, of which 200 were found to be fully completed and usable, yielding an effective response rate of 87%. The remaining 7 questionnaires were excluded due to excessive missing data.

## 3.6 Operationalization and Measurement of Variables

Table 3.2 below presents the operationalization of the three primary study variables:

**Table 3.2: operationalization and Measurement of Variables**

| Variable | Type | Indicators | Measurement Scale |
|---|---|---|---|
| **Fintech Adoption** | Independent | Frequency of mobile money use; variety of platforms; perceived usefulness; ease of use | 5-point Likert scale |
| **Socio-Economic Factors** | Mediating | Income, education, gender, occupation, distance to agent | Categorical and ordinal scales |
| **Financial Inclusion** | Dependent | Account ownership, transaction frequency, savings, credit access, digital service use | 5-point Likert scale & binary |

All Likert-scale items used the standard five-point response format: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree. Composite scores were computed for each construct by averaging item scores. Demographic and socio-economic variables were measured using categorical and ordinal scales appropriate to the nature of each indicator.

## 3.7 Data Analysis Techniques

All data were entered, cleaned, and analysed using IBM SPSS Statistics version 26. The analysis proceeded in three stages:

**Stage 1 – Descriptive Analysis:**

Frequencies, percentages, means, and standard deviations were computed to describe the socio-demographic profile of respondents and the distribution of key variable scores. Cross-tabulations were produced to examine relationships between categorical variables.

**Stage 2 – Inferential Analysis:**

Pearson product-moment correlation coefficients were computed to assess the strength and direction of bivariate relationships between fintech adoption, socio-economic factors, and financial inclusion. Chi-square tests were used to examine associations between categorical socio-economic variables and adoption levels.

**Stage 3 – Multiple Regression and Mediation Analysis:**

Multiple linear regression was conducted with financial inclusion as the dependent variable and fintech adoption, socio-economic factors, and technological factors as independent variables. This enabled the assessment of the unique contribution of each predictor while controlling for the others. Mediation analysis was conducted using the Baron and Kenny (1986) procedure, supplemented by the Sobel test, to determine whether socio-economic factors mediated the relationship between fintech adoption and financial inclusion. All tests were conducted at the 5% level of significance ($p < 0.05$). The assumptions of normality, linearity, homoscedasticity, and absence of multicollinearity (VIF < 2.0) were verified prior to regression analysis.

## 3.8 Ethical Considerations

Research ethics were upheld at every stage of the study in accordance with Uganda Christian University's research ethics guidelines and international research ethics standards (Resnik, 2020). Ethical Principles Followed Were as Follows:

- Consent: The participants were informed verbally and in writing about the objective of the study, procedures, advantages, and disadvantages involved before asking for their participation.
- Consent forms were signed or thumb-printed by all respondents prior to questionnaire administration.
- Voluntary Participation: Participation was entirely voluntary. Respondents were informed of their right to withdraw at any time without consequence.
- Confidentiality and Anonymity: No personally identifying information was collected. Questionnaires were coded numerically, and individual responses were not shared with any third party.
- Data Security: The completed questionnaires and electronic data sets were safely stored. The paper questionnaires were safely locked away in a safe, and the electronic data sets were password protected.
- Non-Maleficence: The study posed no risk of physical, psychological, or social harm to participants. Questions were designed to be non-sensitive and non-invasive.
- Academic Integrity: All sources cited in this dissertation have been properly acknowledged, and no data has been fabricated or misrepresented.

## 3.9 Anticipated Limitations

The following are some of the limitations of this study:

• Cross-sectional design: Data were gathered at a single time point, thereby not allowing for a causal interpretation of changes in fintech adoption and financial inclusion behaviors over time. A future longitudinal design could yield stronger evidence.

• Self-reported data: Participants could have been affected by social desirability bias, meaning that they would answer according to what they thought the investigator wanted to know rather than their real experience. Anonymity was stressed.

• Digital exclusion of non-users: Non-fintech users may have had low odds of being selected from a purposive sample, since they had never used fintech.

• Limited geographical scope: The study concentrated on one district; thus, results may be somewhat biased by differences in other rural districts in terms of infrastructure, culture, and economy.

• Recall bias: A few questions related to past financial behaviors and could suffer from recall biases.

# CHAPTER FOUR

# PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

## 4.1 Introduction

This chapter will discuss, analyze, and interpret the quantitative data collected from 200 participants residing in Mukono District between October and January 2025. Data analysis and interpretation in this chapter will be organized systematically based on the study research objectives, employing descriptive, inferential statistics, and regression analysis. All analyses were performed using IBM SPSS Statistics software version 26. Results are presented in tables and explained descriptively with interpretations in relation to the study theoretical framework and review of literature in Chapter Two.

The chapter will begin with Section 4.2 on response rate and quality of data, followed by Section 4.3 on demographics of the participants. Sections 4.4 to 4.6 will focus on analyzing the main variables in the study. Bivariate analysis will be covered in Section 4.7, while Section 4.8 deals with multiple regression and mediation. In addition, obstacles to fintech adoption will be discussed in Section 4.9, ending with a conclusion in Section 4.10.

## 4.2 Response Rate and Data Quality

Overall, 230 questionnaires were administered in selected rural sub-counties in the district of Mukono. 207 out of these responded back, giving a response rate of 90%. After the cleaning process, 7 questionnaires containing more than 20% of missing data were identified and eliminated from analysis. 200 valid questionnaires remained, thus providing a final response rate of 87%.

The response rate of 87% is considered high and has been achieved through the employment of professional research assistants, administering questionnaires personally, and conducting follow-up sessions with respondents who did not complete their questionnaires in the first week (Saunders et al., 2019).

Reliability was determined by conducting internal consistency checks with the help of Cronbach's alpha for multi-item Likert scale constructs

Fintech Adoption scale (8 items): $\alpha = 0.83$ — Good reliability

- Socio-Economic Factors scale (7 items): α = 0.79 — Acceptable reliability
- Financial Inclusion scale (9 items): α = 0.87 — Good reliability

All three constructs exceeded the minimum recommended threshold of α = 0.70 (Bryman, 2021; Saunders et al., 2019). Validity of construct was determined by conducting principal component factor analysis (KMO = 0.81; Bartlett's test of sphericity $p<0.001$) where all the items loaded significantly on their corresponding factors with loadings of over 0.60. Normality, linearity, homogeneity of variance and no presence of multicollinearity (all variables had VIF < 2.0) was observed, hence the applicability of multiple linear regression.

## 4.3 Demographic Profile of Respondents

Table 4.1 shows the socio-demographic features of the 200 respondents used in the study. This data is crucial to the interpretation of results and confirms that the sample used was representative of the adult rural community of Mukono District.

**Table 4.1: Demographic Characteristics of Respondents (n = 200)**

| Variable | Category | Frequency | Percentage (%) |
|---|---|---|---|
| **Gender** | Male | 116 | 58.0 |
| | Female | 84 | 42.0 |
| **Age Group** | 18–30 years | 82 | 41.0 |
| | 31–45 years | 72 | 36.0 |
| | 46 years and above | 46 | 23.0 |
| **Education Level** | No formal education / Primary | 68 | 34.0 |
| | Secondary | 86 | 43.0 |
| | Tertiary / Post-secondary | 46 | 23.0 |
| **Monthly Income (UGX)** | Below 200,000 | 104 | 52.0 |
| | 200,001–500,000 | 66 | 33.0 |
| | Above 500,000 | 30 | 15.0 |
| **Primary Occupation** | Subsistence farming | 96 | 48.0 |
| | Small business / Trade | 66 | 33.0 |
| | Casual labour / Other | 38 | 19.0 |

| | | | |
|---|---|---|---|
| **Distance to Nearest Fintech Agent** | Less than 5 km | 112 | 56.0 |
| | 5–10 km | 58 | 29.0 |
| | More than 10 km | 30 | 15.0 |

The respondents were primarily males (58%), as is the case in household surveys carried out in rural Uganda, which shows that most of the household heads are male since men are usually the financial decision-makers in such households. Nevertheless, the 42% proportion of females is consciously high for a sample in a rural area as a result of the study's intention to purposely include female respondents due to the gender difference in access to finance.

Age wise, 77% of the respondents were aged 45 years or below, a characteristic that reflects the young demographic profile of Mukono District. Educational level wise, 34% of the respondents did not go through any formal education or completed just their primary level while 43% were at the secondary level, and 23% were at the tertiary or post-secondary levels of learning. These figures are quite similar to those of the rural Uganda educational profile.

According to income data, 52% of participants earn less than UGX 200,000 monthly. This shows that the Mukono District's rural economy is mainly dominated by people who are in the low-income bracket. The major occupation among the respondents was subsistence farming, which was reported by 48%, while small businesses and trading were 33%. Regarding the closeness of fintech agents, 56% of the respondents were within 5 km of the nearest agent, 29% were 5 to 10 km away, and 15% were over 10 km away.

## 4.4 Fintech Adoption Levels (Objective 1)

Adoption of fintech was measured using eight Likert scale questions regarding usage frequency, types of platforms used, usefulness, and ease of use. The adoption of fintech can be seen in Table 4.2 below.

**Table 4.2: Levels of Fintech Adoption (n = 200)**

| Adoption Level | Frequency | Percentage (%) | Mean Score (SD) |
|---|---|---|---|
| High (daily/weekly use across multiple services) | 124 | 62.0 | 4.18 (0.62) |
| Moderate (monthly/occasional use) | 52 | 26.0 | 3.41 (0.71) |
| Low (rare or no use) | 24 | 12.0 | 2.25 (0.68) |

| | | | |
|---|---|---|---|
| **Overall Mean Score** | **200** | **100.0** | **3.78 (0.67)** |

The findings indicate that 62% of the study participants had adopted fintech highly, based on the fact that their interactions with the mobile money app were either daily or weekly for various uses. Moderate adoption levels were shown by 26%, who did occasional transactions through the mobile apps. Low adopters comprised only 12% of the participants. The total mean of 3.78 (standard deviation of 0.67) indicates a fairly positive attitude towards fintech amongst the participants.

As far as the usage of the different fintech platforms is concerned, the most adopted platform was MTN Mobile Money used by 88.5% of the participants. Airtel Money came second with 66.5%. Agent banking is used by 53% of the participants, whereas digital wallets and mobile banking applications were used only by 29%. Therefore, it can be concluded that even though other fintechs exist, people have mostly used the mobile money option.

The findings of the analysis on the sub-constructs of TAM indicated that perceived usefulness (M=4.18) was statistically rated higher compared to perceived ease of use (M=3.65). The difference indicates that although the residents in rural areas have appreciated the benefits of fintech applications, usability issues remain a hindrance to their active participation. The result is in line with Davis (1989), confirming the views presented by Kaaya et al. (2022) about the influence of digital literacy on adoption quality.

## 4.5 Socio-Economic Factors (Objective 2)

The effect of socio-economic factors on fintech adoption was assessed using the chi-square test and cross-tabulation. Table 4.3 shows the cross-tabulation of the level of fintech adoption by educational level.

**Table 4.3: Cross-tabulation of Fintech Adoption by Education Level ($\chi^2 = 38.24$, df = 4, p = 0.000)**

| Education Level | High Adoption (%) | Moderate (%) | Low (%) | n |
|---|---|---|---|---|
| Primary or below | 39.7 | 41.2 | 19.1 | 68 |
| Secondary | 65.1 | 26.7 | 8.2 | 86 |
| Tertiary | 80.4 | 15.2 | 4.3 | 46 |

As evident from the chi-square test results, there is a very strong statistically significant relationship between educational level and fintech adoption ($\chi^2 = 38.24$, df = 4, $p < 0.001$). Individuals with a primary or lower educational level showed a high fintech adoption rate of 39.7%, which is lower than that of individuals with secondary (65.1%) and tertiary educational levels (80.4%). These results confirm that educational level is an important determinant of fintech adoption.

Moreover, income level also showed a strong association with the levels of adoption. The group of people whose monthly income was over UGX 500,000 had adoption rates which were almost twice the level of adoption among individuals with income below UGX 200,000 ($\chi^2 = 29.81$, $p < 0.001$). In terms of gender, men had higher levels of adoption compared to women, with the rate being statistically significant ($\chi^2 = 14.67$, $p < 0.01$), where 71% of the males qualified as high adopters against 50% of the females.

Distance to the closest fintech agent was found to be a statistically significant determinant as well. Individuals residing closer to the agent within 5 km had a high rate of adoption of 74%, while those who were at distances of 5 to 10 km from the agent had adoption levels of 54% and those more than 10 km away having low levels of 37% ($\chi^2 = 22.43$, $p < 0.001$).

## 4.6 Financial Inclusion Levels

Financial inclusion was measured using a nine-item composite index covering account ownership, transaction frequency, savings engagement, credit access, and digital financial service use. Table 4.4 presents the distribution of financial inclusion levels.

**Table 4.4: Levels of Financial Inclusion (n = 200)**

| Inclusion Level | Description | Frequency | (%) |
|---|---|---|---|
| High | Active use of 3+ financial products | 92 | 46.0 |
| Moderate | Use of 1–2 financial products | 72 | 36.0 |
| Low | Account only or no formal access | 36 | 18.0 |
| **Total** | | **200** | **100.0** |

It is evident from the findings that just 46% of respondents were considered highly financially included, implying their regular use of three or more formal financial services. Another 36% were moderately included, having one or two products, while 18% had poor inclusion. This data reflects the existence of an existing gap between urban and rural financial inclusion noted in Chapter Two (FII, 2024; Bank of Uganda, 2023).

Breakdown of financial inclusion by gender shows notable differences, as 54% of male respondents were found to be highly financially included while only 35% of female respondents fell into the same category. There were similar gaps noted in financial inclusion based on educational attainment as well, with 72% of respondents holding a tertiary qualification being highly financially included compared to only 24% not having one.

Savings involvement was the most frequently mentioned financial inclusion activity, where 63 percent of the respondents claimed to have a habit of saving using mobile money. The least prevalent aspect was credit availability, with just 38 percent of the respondents claiming to have access to credit in any form via fintech. This indicates that although fintech has managed to provide rural customers with basic savings solutions, credit for development purposes still remains out of reach.

## 4.7 Bivariate Relationships (Pearson Correlation)

The Pearson product-moment correlation test was employed for evaluating the bivariate relationship between the main constructs of the study. The results of the correlation test are provided in Table 4.6 below.

**Table 4.6: Pearson Correlation Matrix**

| Variable Pair | r (Pearson) | p-value | Interpretation |
|---|---|---|---|
| Fintech Adoption ↔ Financial Inclusion | 0.682 | 0.000 | Strong positive |
| Fintech Adoption ↔ Socio-Economic Factors | 0.614 | 0.000 | Strong positive |
| Socio-Economic Factors ↔ Financial Inclusion | 0.571 | 0.000 | Moderate positive |
| Technological Factors ↔ Financial Inclusion | 0.523 | 0.000 | Moderate positive |

All correlations are positive and highly significant at the 1% level of significance, falling within the expected range of values. The most significant correlation was found between fintech adoption and financial inclusion, with r = 0.682, which suggests that there is a strong correlation between the two variables; the more the level of fintech adoption, the more financial inclusion.

The above results offer preliminary support to all the four research questions proposed in the study and also fit into the theoretical framework provided in chapter one. The results are also in line with those obtained empirically by Munyegera & Matsumoto (2016), Mandera (2019), and Mwesige et al. (2024) among others.

## 4.8 Multiple Regression and Mediation Analysis (Objective 3)

A multiple linear regression analysis was done to determine how fintech adoption, socio-economic factors, and technological factors predict financial inclusion. The findings are shown in Table 4.5.

**Table 4.5: Multiple Linear Regression Results (Dependent Variable: Financial Inclusion Index)**

| Predictor Variable | Unstd. β | Std. β | t-value | p-value | VIF |
|---|---|---|---|---|---|
| Constant | 0.842 | — | 3.12 | 0.002 | — |
| Fintech Adoption | 0.418 | 0.452 | 7.12 | 0.000 | 1.38 |
| Socio-Economic Factors (Index) | 0.296 | 0.329 | 5.18 | 0.000 | 1.51 |
| Technological Factors | 0.201 | 0.218 | 3.45 | 0.001 | 1.26 |

**Model Summary:** $R = 0.786$, $R^2 = 0.618$, Adjusted $R^2 = 0.612$, $F(3,196) = 132.76$, $p < 0.001$

The regression model explains 61.8% of the variance in financial inclusion (Adjusted $R^2 = 0.612$), indicating strong overall model fit. All three predictor variables, fintech adoption ($\beta = 0.452$, $p < 0.001$), socio-economic factors ($\beta = 0.329$, $p < 0.001$), and technological factors ($\beta = 0.218$, $p = 0.001$), made statistically significant and independent contributions to financial inclusion. Fintech Adoption proved to be the most significant factor, followed by Socio-Economic Factors, and Technological Factors.

Lack of Multicollinearity (VIF values below 2.0 for all independent variables) assures that the predictors are adding value to the regression model independently without causing any issue of multicollinearity. Significant F-value ($F(3,196) = 132.76$, $p < 0.001$) ensures that the goodness of fit is satisfactory in this regression model.

Mediation Analysis based on Baron and Kenny (1986) Method along with Sobel Test proved that the socio-economic factors have partial mediation effects between fintech adoption and financial inclusion. Partial Mediation effects have been demonstrated where the indirect effect of fintech adoption via socio-economic factors was 0.27 (SE = 0.04, $p < 0.01$), whereas the direct effect was found significant ($\beta = 0.452$, $p < 0.001$).

## 4.9 Challenges of Fintech Adoption (Objective 3)

The participants were required to state the main problems that they encountered when they adopted and utilized fintech services in Mukono District. Table 4.7 below shows the frequency distribution of these problems.

**Table 4.7: Challenges of Fintech Adoption by Category**

| Challenge Category | Specific Challenge | % Respondents Reporting |
|---|---|---|
| **Digital Literacy** | Navigating the mobile money menus without assistance | 61.0% |
| | English-only language interfaces | 47.5% |
| **Infrastructure** | inconsistent availability of mobile phone networks | 58.5% |
| | Agent cash shortages | 52.0% |
| | Limited access to electricity for device charging | 44.0% |
| **Trust and Security** | Fear of fraud and SIM-swap theft | 55.0% |
| | Distrust of digital financial platforms generally | 38.5% |
| **Cost Barriers** | High transaction fees relative to income | 63.0% |
| **Gender Constraints** | Lack of personal phone ownership (women) | 49.0% |
| | Cultural restrictions on independent financial decisions | 41.0% |

Transaction costs stood out as the highest reported constraint, with 63 percent of the respondents indicating that transaction fees were too high compared to their financial situation. The above observation is crucial especially because 52 percent of the respondents earn less than UGX 200,000 per month, and therefore, even small transaction fees translate into a considerable part of monthly earnings.

The issue of digital literacy ranked second among the major obstacles reported by 61 percent of the survey respondents. Language challenges, which were identified by 47.5 percent of the respondents, were cited in relation to the use of an English-only interface on mobile money applications.

Problems related to infrastructure, such as inadequate mobile network coverage (58.5%) and insufficient liquidity of agents (52%), were among the most prominent factors preventing fintech use on a sustained basis. These results are supported by the infrastructure deficit observed by Watchdog Uganda (2024) and highlight the need for investment in physical and technological infrastructure as a precondition for advancing financial inclusion through fintech.

Fear of fraud and theft of SIM cards constituted a major barrier to financial services uptake, as indicated by 55% of the respondents. This observation is consistent with Kaaya et al. (2022), who revealed that trust was one of the key factors influencing the quality of mobile money adoption in rural Uganda. Gender-specific issues, such as the absence of an individual phone (49%) and social norms limiting autonomy in financial matters (41%), were also highlighted.

## 4.10 Summary of Key Findings

Table 5.1 offers an overview of the most important results, divided by research objective:

**Table 5.1: Summary of Key Findings by Objective**

| Objective | Key Finding | Statistical Evidence |
|---|---|---|
| Obj. 1: Fintech adoption level | 62% high usage; mobile money is the preferred means of payment | Mean score = 3.78; MTN = 88.5%, Airtel = 66.5% |
| Obj. 2: Relationship with inclusion | Fintech has a highly significant relationship with inclusion | $r = 0.682$, $p < 0.001$; $\beta = 0.452$, $p < 0.001$ |
| Obj. 3: Challenges | Transaction costs are relatively high; digital illiteracy; lack of infrastructure | 61% indicate digital literacy as a challenge; 63% cost-related issue |
| Obj. 4: Solutions | Digital literacy training; more agents; gender-sensitive designs | Mediating impact = 0.27; socio-economic index r = 0.571 |

Finally, based on the analysis above, it can be concluded that the use of fintech in Mukono district is relatively high, but it is mainly for simple mobile money operations. There are various socio-economic mediators such as education, income, and gender that have a crucial effect on how financial inclusion relates to fintech. Financial inclusion in the district is far from being complete, especially when it comes to credit.

# CHAPTER FIVE

# DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

## 5.0 Introduction

The conclusions drawn from this chapter represent a synthesis of the empirical results obtained through Chapter Four with respect to the research objectives, theoretical frameworks and the literature review done in Chapter Two. The chapter analyses the findings with regard to their implications for theory, policy and practice. Following that, the conclusions and recommendations of the study are provided. Limitations of the study and future directions for research are also highlighted.

## 5.1 Summary of Major Findings

The study investigates the effect of adopting fintech on financial inclusion in Mukono District, Uganda. The findings of the study can be outlined as follows:

- Fintech adoption was moderately high, with 62% of respondents classified as high adopters. Mobile money, especially MTN Mobile Money (88.5%) and Airtel Money (66.5%), was the preferred type of fintech technology. High levels of underutilization of advanced technologies like mobile banking applications and digital wallets (29%) were reported among respondents.
- Social economic variables such as level of education, household income, gender, and access to fintech agents have been found to be strong and significant predictors of fintech adoption rate. Highly educated respondents (tertiary) were almost two times more likely to adopt fintech services at higher rates than primary or non-educated people.
- Financial inclusion was partial among respondents, since 46% of them had been categorized as highly financially included. High participation rate was recorded among savings members (63%), while low involvement was seen in case of credit users (38%).
    - The multiple regression analysis indicated that 61.8% of variance in financial inclusion could be predicted by fintech adoption ($\beta = 0.452$), socio-economic factors ($\beta = 0.329$), and technological factors ($\beta = 0.218$).
    - Socio-economic factors acted as partial mediators for the relationship between fintech adoption and financial inclusion (mediation effect = 0.27, $p < 0.01$), thus supporting theoretical assumptions of the conceptual framework.
    - The most frequently cited challenges related to fintech adoption included high transaction costs (63%), digital illiteracy (61%), network unreliability (58.5%), and trust and security issues (55%).

## 5.2 Discussion of Findings by Research Objective

***Objective 1: Fintech Adoption in Mukono District***

The observation of 62% of the respondents adopting fintech to a high extent is relatively aligned to the trend of increasing usage of mobile money in the country, as reported by Nagaaba et al. (2025) and FII (2024). Indeed, the prevalence of mobile money over advanced financial technology products shows the same trend witnessed in other parts of rural sub-Saharan Africa. In these areas, USSD-based mobile money is preferred due to their affordability and accessibility.

The difference in means between the perceived usefulness (mean=4.18) and the perceived ease of use (mean=3.65) according to TAM analysis represents a significant theory development point. What this result tells us is that the rural users of fintech products focus more on issues of usage limitations as opposed to their ability to perceive the value of fintech products. In that regard, this study extends the findings of Davis (1989) by noting that in the context of rural areas such as Mukono, the issue of ease of use limits the adoption of the technology more so than its usefulness.

The low number of individuals who have adopted mobile wallets (29% against a significantly higher number of those who use mobile money), according to Nimurungi (2024), represents another important aspect of rural fintech adoption – that of technological stratification. The users who rely mostly on basic USSD and voice call applications on their devices face challenges in making the move towards smartphone applications.

***Objective 2: Relationship Between Fintech Adoption and Financial Inclusion***

These high values of correlation ($r = 0.682$, $p < 0.001$) and of the beta coefficient ($\beta = 0.452$, $p < 0.001$) provide empirical proof of the thesis formulated in this research regarding the significant impact of adopting new technologies on financial inclusion in rural areas of Uganda. These findings can be seen as an extension of previous research conducted by Munyegera and Matsumoto (2016) that have shown the positive welfare effect of adopting mobile money in rural Uganda with a panel data approach.

The fact of partial mediation has great theoretical and practical value. The mediation through socio-economic factors means that besides its role as a mechanism of increasing financial access via expanding the range of available services, fintech can be a facilitator to other processes such as getting education, earning money, and achieving equal status to males. Thus, any policy measure aimed only at increasing fintech supply, i.e., providing greater network coverage without consideration of educational and financial issues, is likely to lead to only partial effects of financial inclusion.

The gender disparity in both adoption and inclusion, with female respondents showing significantly lower rates on both measures, is consistent with the structural barriers documented by the Bank of Uganda (2023) and Kaaya et al. (2022). This finding reinforces the argument that achieving gender-equitable financial inclusion requires interventions that go beyond technology access to address the underlying socio-cultural and economic factors that restrict women's financial autonomy.

***Objective 3: Challenges of Fintech Adoption***

Analysis of the data collected shows that there exists a complex and interconnected problem that cannot be solved using one method. It arises as a result of the intersection of four issues: high transaction costs (63%), digital illiteracy (61%), infrastructural inadequacy (58.5%), and lack of trust (55%).

The high cost of transactions is especially detrimental to Mukono residents because it places a heavier burden on the most disadvantaged groups who, at the same time, could potentially gain the most from becoming financially included. The fact that 52% of the respondents have monthly incomes less than UGX 200,000, while having to pay transaction fees that might amount to a considerable part of micro-transactions made, indicates the regressive nature of the fee system currently in place.

The language barrier issue, where 47.5% of the respondents report challenges with fintech interfaces only provided in English, has not been addressed enough within the Ugandan fintech policymaking process. Considering that Luganda and other local languages are the main modes of communication in such a district, using English when dealing with fintech interfaces constitutes an exclusion barrier that can be avoided and corrected easily. Localization of mobile money interfaces is highly impactful and inexpensive for fintech companies to implement.

The issues related to trust and security point out the need for a more effective infrastructure that would provide trust for digital technologies. As frauds related to the use of mobile money services, including SIM swap schemes, have become quite common in the Ugandan media, such problems have undermined the adoption of new innovations. Conducting awareness campaigns at the local level and addressing other issues within the realm of consumer protection are important steps to take.

***Objective 4: Solutions for Improved Fintech-Driven Financial Inclusion***

The mediation effects indicate that socioeconomic variables explain a large part of the influence of fintech on inclusiveness. The strategy for improving inclusiveness cannot focus solely on adopting fintech without paying attention to the underlying socio-economic environment because the results would be minimal. Instead, interventions geared towards improving education, increasing incomes, promoting gender equality, and enhancing the availability of fintech could create synergies that amplify inclusiveness.

Agent closeness was found to have significant predictive power over both adoption and inclusiveness ($\chi^2 = 22.43$, $p < 0.001$). In light of this finding, it is important to recognize that the need for physical infrastructural support for delivering financial services has not been completely eliminated by the emergence of digital finance. Efforts must be made to increase the number of agents in sub-counties in Mukono District where the need is highest, and proper float management must be prioritized.

## 5.3 Theoretical Contributions

The study contributes to the literature theoretically by adding some knowledge in the context of understanding the applicability of TAM and Diffusion of Innovation Theory to the rural context of Uganda. This has been done by empirically proving that perceived usefulness and ease of use are important predictors of adoption, and that ease of use is the key limitation factor.

This extends Davis's (1989) original TAM framework, which was developed in high-literacy, high-technology-familiarity contexts.

Second, the partial mediation model developed and tested in this study represents a theoretical contribution by providing a more nuanced account of the fintech-inclusion pathway than has been available from existing single-variable studies. By demonstrating that socio-economic factors neither fully explain nor are bypassed in the adoption-inclusion relationship, the study provides a more accurate model for use in subsequent research.

Third, the study's integration of Rogers' (2003) Diffusion of Innovations framework with TAM to explain adoption heterogeneity across socio-economic groups provides a theoretical synthesis that enriches both frameworks. The adoption distribution found in this study, with high adoption among the young, educated, and higher-income, and low adoption among the elderly, less educated, and lower-

income, maps closely onto Rogers' adopter categories, suggesting that the Ugandan rural fintech adoption curve is in its early-to-middle diffusion phase.

## 5.4 Practical and Policy Implications

Table 5.2 presents a structured summary of the study's recommendations and the responsible stakeholders for each intervention:

**Table 5.2: Policy Recommendations and Responsible Stakeholders**

| Finding / Challenge | Recommendation | Responsible Stakeholder |
|---|---|---|
| Low digital literacy | Integrate digital-financial-literacy modules into adult education and primary school curricula | MoES, NGOs, Fintech Providers |
| High transaction costs | Subsidise or cap transaction fees for low-income rural users; introduce micro-transaction tiers | Bank of Uganda, MNOs, Government |
| Infrastructure gaps | Expand rural mobile network coverage and solar-powered charging stations in remote areas | UCC, Infrastructure Investors, Government |
| Agent liquidity shortfalls | Strengthen agent float management systems and establish emergency liquidity support mechanisms | MNOs, Bank of Uganda |
| Gender gaps in inclusion | Launch targeted mobile-money literacy programmes for women; advocate for women's phone ownership | NGOs, USAID, Community Leaders |
| Trust and security fears | Expand consumer protection frameworks and awareness campaigns on fraud prevention | Bank of Uganda, NITA-U, Fintech Firms |
| Limited credit access | Develop simplified mobile microloan products with flexible repayment terms for rural users | MFIs, SACCOs, Fintech Startups |
| English-only interfaces | Localise fintech platforms in Luganda, Lusoga, and other major local languages | Fintech Providers, MNOs |

The recommendations above collectively constitute a multi-stakeholder strategy for deepening fintech-driven financial inclusion in Mukono District and, by extension, in comparable rural contexts across Uganda. They are grounded in the empirical findings of this study and informed by best practices documented in the wider financial inclusion literature.

Importantly, these recommendations take into account the fact that no individual stakeholder can alone provide solutions to all the barriers mentioned here. It is essential to have a joint effort towards making significant and sustainable financial inclusion gains, which are consistent with the goals of Uganda's National Financial Inclusion Strategy II (Bank of Uganda, 2023).

## 5.5 Limitations of the Study

• Cross-sectional methodology: The cross-sectional approach restricts causality, thus making it difficult to draw causal conclusions regarding shifts in financial behavior among the subjects over time.

• Biased responses: Self-reports based on Likert scale items could be biased due to social desirability concerns, thereby increasing scores for items concerning the use of fintech services and financial inclusion.

• Limited sample pool: The study only targeted one rural district – Mukono – which suggests that results may not extend to all other rural districts, which may vary from Mukono in terms of infrastructure, culture, and economy.

• Negative sample selection: The intentional sampling of fintech users leads to the exclusion of the most financially excluded people who have never used fintech services.

• No qualitative data: The reliance on quantitative methodology excludes personal experiences and cultural dimensions that play an essential role in influencing financial behavior.

## 5.6 Recommendations for Future Research

• Panel design study: The panel study will strengthen the causality between the financial behavior impacts of consistent fintech adoption in rural Uganda if it is carried out within 24 to 36 months.

• Combination of qualitative research methods: Qualitative methods such as focus groups and in-depth interviews will enhance the research on the dynamics of trust, cultural barriers, and fintech diffusion at a community level.

• Cross-sectional district comparison: Cross-sectional research between Mukono District and distant districts such as Kotido and Zombo will help us understand how infrastructural differences impact the relationship between fintech and financial inclusion.

• Feminist research sub-study: Women's adoption of fintech in the Mukono District needs to be explored through feminist research methods since there may be additional factors that prevent rural women from using the technology.

• Latest developments in fintech industry: Research on new financial products such as blockchain-based remittances, credit scores based on digital footprints, and insurance through the mobile phones needs to be conducted in the future.

## 5.7 Conclusion

This study set out to examine the impact of fintech adoption on financial inclusion in Mukono District, Uganda. Drawing on data from 200 rural respondents and employing robust quantitative methods including descriptive statistics, Pearson correlation, multiple linear regression, and mediation analysis, the study has produced empirically grounded and practically actionable findings.

The evidence is clear: fintech adoption, particularly through mobile money platforms, has a significant and positive impact on financial inclusion in rural Mukono. The regression model explained 61.8% of the variance in financial inclusion, with fintech adoption as the dominant predictor. However, this positive impact is conditional. It is amplified by higher levels of education, income, and gender equity, and is constrained by digital illiteracy, infrastructure deficits, high transaction costs, and socio-cultural barriers. Socio-economic factors partially mediate the relationship, meaning that the full inclusion potential of fintech can only be realised when supported by commensurate advances in human capital and social equity.

The study makes original contributions to the literature by providing localised evidence from Mukono District, extending TAM and Diffusion of Innovations Theory to a rural Ugandan fintech context, and demonstrating a partial mediation model that illuminates the mechanism through which fintech drives inclusion. The recommendations, directed at fintech providers, regulators, government agencies, NGOs, and community leaders, constitute a practical roadmap for a coordinated effort to close the financial inclusion gap in rural Uganda.

Uganda's National Financial Inclusion Strategy II envisions a future where all Ugandans, regardless of location, income, gender, or education, have access to and actively use quality financial services. The findings of this study affirm that fintech is an indispensable instrument for realising that vision, and that achieving it will require not only technological innovation but a sustained commitment to the social and economic empowerment of Uganda's rural communities.

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# APPENDIX I: RESEARCH QUESTIONNAIRE

This survey will help in gathering information regarding the effect that the use of fintech technology has on financial inclusion in Mukono District of Uganda, among residents in the rural setting and users of the fintech services. Your responses will be treated with strict confidentiality and used solely for academic purposes. Tick (✓) the most appropriate option.

### Section A: Demographic Information

| No. | Question | Response Options |
|---|---|---|
| 1 | Gender | ☐ Male ☐ Female |
| 2 | Age Bracket | ☐ 18–25 ☐ 26–35 ☐ 36–45 ☐ 46 and above |
| 3 | Education Level | ☐ No formal education ☐ Primary ☐ Secondary ☐ Tertiary |
| 4 | Occupation | ☐ Farmer ☐ Self-employed ☐ Business owner ☐ Casual labour ☐ Other |
| 5 | Monthly Income (UGX) | ☐ Below 100,000 ☐ 100,001–300,000 ☐ 300,001–500,000 ☐ Above 500,000 |
| 6 | Distance to nearest fintech agent | ☐ Less than 5 km ☐ 5–10 km ☐ More than 10 km |
| 7 | Years using fintech services | ☐ Less than 1 year ☐ 1–3 years ☐ 4–6 years ☐ Over 6 years |

### Section B: Fintech Adoption

Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, = Strongly Agree

| No. | Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | I frequently use mobile money services (MTN, Airtel) for financial transactions. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2 | I use agent banking services to carry out financial transactions. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3 | I use digital wallets or mobile banking applications for purchases. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4 | I trust fintech services for saving and receiving money. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5 | I find mobile money services easy to use without assistance. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6 | Fintech services have improved my ability to manage money. | ☐ | ☐ | ☐ | ☐ | ☐ |

| | | | | | | |
|---|---|---|---|---|---|---|
| 7 | I am aware of multiple fintech services available in my area. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8 | Access to fintech agent services is convenient where I live. | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section C: Financial Inclusion

Scale: 1 = Strongly Disagree, 2 = Disagree ,3 = Neutral, 4 = Agree, 5 = Strongly Agree

| No. | Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | I have access to a formal bank account or digital financial account. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2 | I use fintech services to save money regularly. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3 | I use fintech services to access credit or loans. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4 | I can easily make payments using digital financial platforms. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5 | Fintech services have improved my household financial security. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6 | I use mobile money to receive or send money to family members. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7 | I have used mobile money to pay utility bills or school fees. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8 | I have accessed mobile-based insurance products. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9 | Fintech services have helped me manage financial emergencies. | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section D: Challenges to Fintech Adoption

Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

| No. | Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | High transaction fees prevent me from using fintech services regularly. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2 | Unreliable network coverage limits my use of mobile money. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3 | I have difficulty using mobile money menus independently. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4 | I am concerned about fraud or theft when using fintech services. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5 | Cultural norms in my community discourage my use of fintech. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6 | I do not own a personal mobile phone for fintech transactions. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7 | Agent float shortfalls frequently disrupt my access to cash. | ☐ | ☐ | ☐ | ☐ | ☐ |

Thank you very much for your participation in this research. Your responses are greatly appreciated.

# UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

School of Business

03rd March 2026
Mukono Town

Dear Sir/Madam

**Re: Introduction of Mr.Oketayot Pavel Phillip, M23B05/169 for Data Collection Permission**

I am writing to introduce to you **Mr. Oketayot Pavel Phillip, M23B05/169** , a Bachelor Business Administration at Uganda Christian University. Mr.**Oketayot Pavel Phillip, M23B05/169,** is currently in the advanced stage of his academic journey and is conducting a dissertation on **"THE IMPACT OF FINANCIAL TECHNOLOGY ON FINANCIAL INCLUSION IN MUKONO DISTRICT."**

I assure you that Mr.**Oketayot Pavel Phillip, M23B05/169** will adhere to all ethical guidelines and treat any data collected with the utmost confidentiality. **He** is a responsible student dedicated to conducting a thorough and rigorous study.

We kindly request your support in granting **Mr.Oketayot Pavel Phillip, M23B05/169** access to relevant data and personnel within any department and as well as any personnel with objective knowledge regarding **his** topic. Your valuable insights will significantly contribute to the success and quality of his research.

Thank you for considering **his** request. Should you require any additional information, please do not hesitate to contact me on the address provided here below.

Sincerely,

.....

Mukisa Simon Peter
Lecturer and undergraduate
Research coordinator UCU School of Business
Email smukisa@ucu.ac.ug Mob. 0752938600

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