

**THE EFFECT OF MOBILE MONEY USAGE ON THE FINANCIAL
PERFORMANCE OF SME's IN UGANDA**

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**UGANDA CHRISTIAN
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DECLARATION

I AHUMUZA SHAMILAH, hereby declare to the best of my knowledge that the work presented here has never been presented to any institution of higher learning for an award.

Signed: AS.....

Date: 11/05/2026.....

AHUMUZA SHAMILAH

APPROVAL

I hereby certify that this academic research was conducted under my supervision as the academic supervisor and has been reviewed and approved.

Signature: 

Date: 11/05/2026

Simon Peter Mukisa

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In the first place, I want to thank God for providing the necessary guidance through the whole study.

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Last but not the least, I sincerely thank my core participants.

DEDICATION

I would like to dedicate this research work to my parents, brothers and sisters and those who have tirelessly worked with me towards the completion of this research and towards my education journey.

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ABSTARCT

The study was aimed at investigating the impact of mobile money usage on the financial performance of small and medium enterprises in Uganda in relation to the findings of Finscope 2023. The study focused on analyzing the relationship between the two variables that were mobile money usage and financial performance of small and medium enterprises in Uganda with respect to their impact on each other. Mobile money usage includes factors like adoption of mobile money, frequency of usage, and purposes of use while the financial performance indicators include sales revenue, profitability, and access to credit.

Conclusions made in this study show that the quantitative approach was chosen by the researcher for collecting data on SMEs in Uganda in relation to the effect of mobile money usage on their financial performance using the data set of Finscope 2023 as the main data source for the study. The researcher applied several theoretical concepts to understand the relationship between the two variables, that is, mobile money usage and financial performance of SMEs in Uganda. These were Technology Acceptance Model (TAM), Transaction Cost Economics theory, and finally the Financial Intermediation theory.

Mobile money technology has transformed from being just a “payment convenience” to a valuable business resource in that 88% of SMEs use it as a prerequisite to engaging in markets. According to TAM, the usefulness of quick and remote transactions has enhanced revenue through SMEs’ ability to operate despite any geographical barriers. Secondly, transaction frequency was another crucial variable that facilitated operational efficiency by minimizing hidden transaction costs such as the time spent on making travel, risk of theft, and accounting mistakes, thus increasing profit and affirming Transaction Cost Economics Theory. Thirdly, mobile money acts as a great financial intermediary. For 70% of SMEs, particularly in rural settings, mobile money statement is the first document to give them any form of financial documentation. Information generated from B2B transaction statements and saving transactions reduces the information barrier and provides a means to obtain finance without having to offer any collateral. Fourthly, high transaction cost and financial illiteracy hinders complete exploitation of the opportunities created.

In conclusion, it can be stated that adoption, frequency, and type of mobile money usage influence financial performance of SMEs in Uganda.

CHAPTER ONE

INRODUCTION

1.0 Introduction

This chapter provides a detailed overview of the topic, presenting the study's background and the problem statement. Purpose of the study, objectives, research questions, scope, significance, limitations, and the conceptual framework.

1.2 Background of the Study

On a global scale, small and medium enterprises constitute over 90% of firms and make up over 50% of the workforce worldwide. Despite their importance, the financial performance of SMEs continues to be an ongoing issue. The aspects of financial performance include sales revenue, profit, working capital management, and availability of credits. On a global scale, SMEs tend to be less financially flexible compared to large organizations. Bank lending to SMEs grew relatively slowly with a median growth rate of only 2.2% in high-income countries in 2017. Regarding financial performance, SMEs experience high transaction costs, information problems, and hence are limited from accessing credits. In the Simione and Muehlscelegel (2024) study conducted in Indonesia, SMEs are faced with challenges regarding availability of external sources of finance, affecting their sales performance and labor productivity, resulting in poor financial performance among SMEs; hence low growth and expansion rates, as well as low sales revenue. This causes the shutdown of some SMEs due to inability to operate. Deviations either higher or lower result in low profit. As such, on a global level, poor working capital management and credit constraints reduce sales growth and labor productivity among SMEs. Yet another survey done by the World Bank (2021) reveals that difficulties in accessing funds such as lacking the right documents makes it difficult for SMEs to get loans; hence they must remain informal, cash-based in nature. This reduces their sales growth and working capital management, leading to poor financial performance in the long run.

SMEs play an integral role in economic diversification and productivity within African economies, yet the performance gaps among SMEs continue to increase. Access to finance is identified as one of the most acute constraints for SMEs in West Africa. As per the World Bank (2023), just 15% of SMEs in Nigeria have a bank loan or credit facility despite SMEs creating over 80% of jobs in the country. In Sub-Saharan Africa, according to the World Bank Enterprise Survey, small firms

utilize formal credits averaging at 34% while the rate stands at 54% for larger firms. Also, in the DRC, almost 40% of businesses indicate access to finance as a major constraint. Access to finance is considered to make payments easier and improve access to services. However, SMEs continue to suffer from high costs associated with their financial performance. The majority of the SMEs in Africa are necessity based, do not maintain any formal documentation, and operate in an informal manner. This means that their working capital management and creditworthiness are affected negatively. According to Ramalho et al. (2018), SMEs are characterized by high transaction cost and poor information which limit the ability to access credit. Consequently, their financial performance is negatively affected. Although they account for 60% of food production and distribution, the small and growing businesses in Africa only receive 10% of commercial bank finance. In turn, this affects their sales, profit and failure rate.

In Uganda, the majority of the companies belong to the SME category, which is expected to contribute to 5.5% economic growth by 2030. Nevertheless, the financial performance of these firms continues to deteriorate with the business failure rate increasing from 50% in 2004 to 70% in 2018 due to low profitability. In the studies conducted in Buganda area, it was found that there is a negative and significant impact of short-term debt on the performance while there was a positive and significant impact of equity capital. In Wakiso Town Council, more than 73% of the SMEs have experienced widespread access to microfinance. The mere availability of microfinance loans exhibited a very insignificant negative relationship with profitability ($r = -0.128$, $p = 0.033$), while the proper utilization of microfinance loans exhibited a significant positive relationship ($r = 0.181$, $p = 0.003$). While frequent borrowing enhanced financial solvency, microfinance credit variables accounted for just 7.7 percent of the variance in financial performance of SMEs. As illustrated by the study carried out by Agaba et al (2024), for instance, mere access to financing is not sufficient but what matters is the quality of finance and its usage.

1.3 Statement of the Problem

Small and Medium Enterprises (SMEs) form the backbone of the Ugandan economy, representing over 90% of the country's private sector while providing most of the employment in the economy and contributing towards the GDP of the country. The performance of these enterprises is under constant threat because of lack of working capital, high transaction costs, low access to credit, and inefficient financial reporting systems. All these factors are expected to impact the key indicators

used in financial performance analysis including sales revenue, profitability, and liquidity ratios. According to Mawejje & Lacuna (2019), the financial performance of SMEs is linked to mobile money as it enhances monetary aggregation, credit, and economic activities within a business.

Financially, the Small and Medium Enterprises (SMEs) in Uganda should perform efficiently through the realization of increasing sales revenue, profitability, efficient use of working capital, and easy access to credit that can be used to grow and expand their business operations, thus creating jobs. This is because only when businesses are financially strong, they can contribute the projected 5.5% to the GDP of the nation by the year 2030. However, SMEs perform weakly financially where financial performance remains below expectation despite the extensive availability of microfinance institutions and also, according to Agaba et al (2024). SME failure rates in Uganda increased from 50% in 2004 to 70% in 2018 due to continued low profitability, according to UBOS, and just 11% of the SMEs obtain bank credit, and the microfinance credit predictors account for only 7.7% of variance in the financial performance of the SMEs, showing that the sources of finance currently available to the enterprises have not translated to good sales, profits, or liquidity positions. The net effect is that most of the SMEs survive at marginal levels without expanding and failing to provide any employment opportunities. Poor sales volumes and slim profit margins imply a lack of funds for reinvestment, while poor management of working capital triggers liquidity problems. Lack of access to finance mean e rate of mortality among SMEs and hinders the development of the private sector in Uganda. In most studies conducted on the financial performance of firms, mobile money is considered a dichotomous variable that examines the impact of its adoption on household welfare and microfinance credits, without considering sales revenue, profitability, working capital, and access to credit for the firms. It thus remains ambiguous whether mobile money utilization affects the financial performance of SMEs in Uganda, and how it impacts it. The research therefore intends to analyze the relationship between mobile money utilization and the financial performance of SMEs in Uganda in order to establish which dimensions of utilization affect sales revenue, profitability, working capital management, and credit access.

1.4 The Purpose of the Study

The purpose of this study was to examine the effect of mobile money usage on the financial performance of SMEs in Uganda.

1.5 Objectives of the Study

The objectives for this study were:

- i. To assess the effect of mobile money adoption on the financial performance of SMEs in Uganda.
- ii. To examine the effect of mobile money transactions on the financial performance of SMEs in Uganda.
- iii. To examine the impact of mobile money usage purpose on the financial performance of SMEs in Uganda.

1.6 Research Questions of the Study

The research questions for this study were:

- i. What is the effect of mobile money adoption on the financial performance of SMEs in Uganda?
- ii. What is the effect of mobile money transactions on the financial performance of SMEs in Uganda?
- iii. What is the impact of mobile money usage purpose on the financial performance of SMEs in Uganda?

1.7 Scope of the Study

1.7.1 The Subject Scope

This study was focused on the effect of mobile money usage on the financial performance of SMEs by showing the relationship between mobile money usage components, such as adoption, usage intensity, and purpose of use, with financial performance components like sales revenue, profitability, net profit margin, return on assets (ROA), liquidity and access to credit in general.

1.7.2 The Geographical Scope

This study was focused on both the urban and rural areas of different regions of Uganda according to Finscope 2023, so as to capture a wider range of entrepreneurs using Mobile Money for their business operations to understand the demographics of the SMEs and mobile money infrastructure in Uganda.

1.7.3 Time Scope

This study was focused on collecting data from 2022-2023 Finscope 2023, and this will enable the collection of appropriate, sufficient, and efficient information about the effect of mobile money usage on the financial performance of SMEs in Uganda.

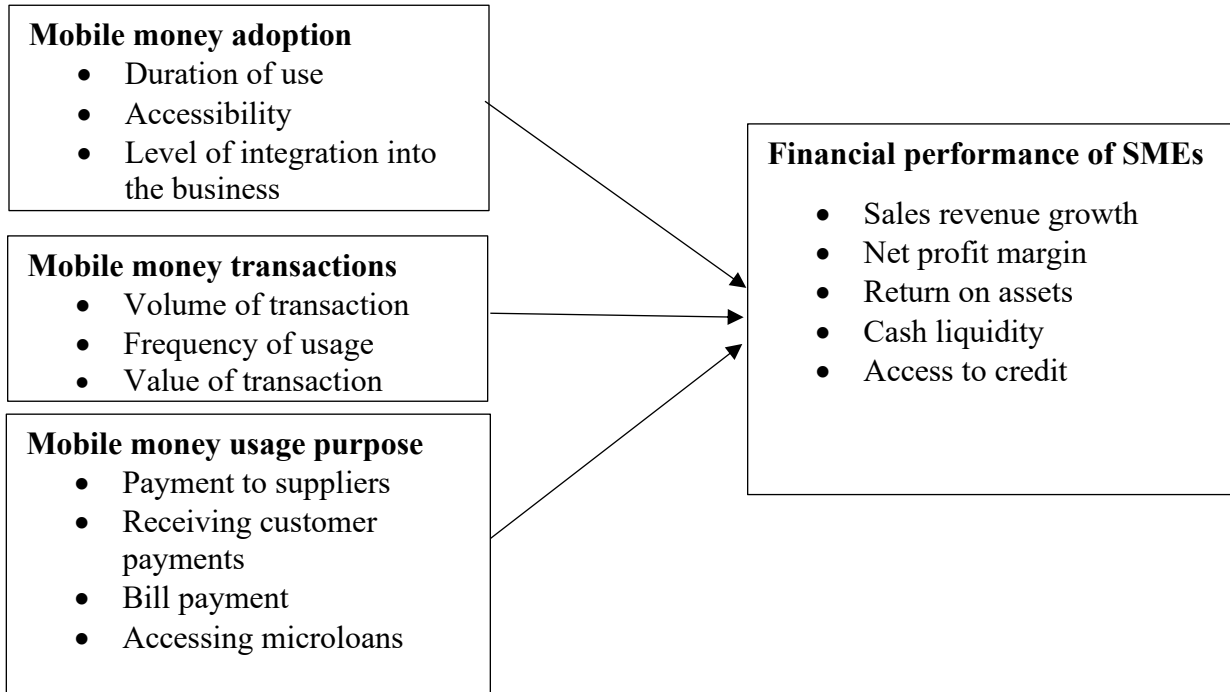
1.8 Significance of the Study

To the policy makers, it is hoped that the findings of this study may be of importance to the stakeholders, like the Uganda Manufacturers Association (UMA), Uganda Revenue Authority (URA), Uganda Investment Authority (UIA), Ministry of Finance Planning and Economic Development (Moped) on the different policies and procedures to be used and decision-making purposes for the development of the country and its manufacturing sector.

Secondly, to the practitioners, it is hoped that the findings of this study will enable the business sector, entrepreneurs and its participants to make more informed decisions about their businesses, policy making, and procedure developments for their businesses.

Lastly, to the schoolers, it is hoped that fellow schoolers will use the findings of this study to acquire more knowledge and insight regarding mobile money usage on the financial performance of SMEs to guide their own research and be used for literature review.

1.9 Conceptual Framework



The conceptual framework illustrates the interdependence between mobile money usage determinants, such as the adoption of Mobile Money, based on whether the SME owner employs the mobile money account to conduct business activities, thus reducing the need for cash and exposing the organization to digital finance. Transaction frequency is dependent on the number of times that the business conducts transactions using mobile money per day, week, or month. Greater transaction frequency indicates greater dependence on mobile money services within the business environment. Finally, the purpose of use: The particular organizational tasks performed using mobile money include payment of customer debts, supplier payments, savings, and loan repayments.

The financial performance of SMEs, in other words, the revenue generated, in terms of the income levels, which fluctuate within 12 months. Mobile money will help in increasing the revenue since it enables the customer located far away to pay immediately. The profitability of the business in terms of how much profit is generated after all expenses have been deducted, and mobile money will enable the reduction in transaction costs and leakage of cash, which increases the profits. Credit access, for instance, whether the business took any loan during the past 12 months and from whom. Mobile money will help in providing information on how credible the business is and will be able to repay the loan.

CHAPTER TWO

LITREATURE REVIEW

2.0 Introduction

This chapter provides a detailed overview of the topics, theoretical framework, and the empirical review for each stated objective. It focuses on giving detailed insights by reviewing empirical and theoretical studies relevant to the effects of mobile money usage on the financial performance of SMEs in Uganda.

2.1 Theoretical Framework

The three theories under consideration were used in this study to understand the relationship between mobile money utilization and the positive impact on SME financial performance. The theory that will be used to establish the importance of intermediation through information provision and reduction of information asymmetry is Financial Intermediation Theory, presented by Gurley & Shaw (1960) and Akerlof (1970). Information asymmetry refers to the lack of sufficient knowledge for lenders to make informed decisions. The role of financial intermediation is to eliminate this information asymmetry and minimize transaction costs for both parties so that there is proper allocation of capital resources. Traditional banks exclude many SMEs since they do not have collateral, a track record, and high appraisal costs. Mobile money platforms act as intermediaries through generating transaction data in place of a credit record. With transaction records, lenders will have all information about their credit standing and will offer loans based on credit scores obtained. The connection between the variable of purpose of using mobile money creates a financial data trail. Increased frequency of transactions will lead to increased availability of financial data and, therefore, better loan approvals, credit scores, working capital, increased sales revenue, and profitability.

Secondly, TAM by Davis (1989), where actual usage of technology is based on two determinants: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Users adopt the technology if they find it useful and easy to use.

The owners of SMEs embrace mobile money once they perceive that this technology has some benefits as far as making their businesses easier, fast payment processes, reduced risk of theft, ease of use, and more efficient than other applications. FinScope report 2023 indicates that the young

people (18-34 years old), who own most of the SMEs in Uganda, embrace convenience and are tech-savvy. After embracing mobile money, high levels of Perceived Usefulness will translate into more usage frequency and variety in uses of mobile money. As a result, there will be reduced costs of handling cash, leading to improved working capital and increased profitability. It will make transaction processes faster since there will be instant receipts from customers.

Transaction Cost Economics Theory Coase (1937) by Williamson (1985)

According to this theory, firms exist due to reduced transaction costs. Therefore, any innovation that leads to reduced transaction costs increases efficiency and effectiveness in the operation of the firm.

In this case, the cash-based SME incurs high transaction costs due to the time spent traveling to pay their suppliers, risks of theft, exchange difficulties, and delays in receiving payments from customers far away. The use of mobile money reduces the cost incurred due to the need to look for a bank or agent whenever transactions are done. An illustration of reduced transaction costs when using mobile money to pay suppliers or receive payments is evident in the increase in profit due to immediate payments and hence working capital. Consequently, the firm can place many orders and sell products, increasing sales revenue.

2.4 Empirical Review

2.4.1 Access the Effect of Mobile Money Adoption on the Financial Performance of SMEs in Uganda.

Globally, GSMA (2023) indicated that countries where mobile money was offered had an extra \$600 billion in GDP from 2013-2022 compared to those that did not offer such services, indicating a macro-level revenue impact. At micro-level, in their study on SMEs in Cameroon, Ngoa Tabi et al. (2021) concluded that using mobile money to receive payment from their customers greatly impacted sales turnover by helping businesses gain access to faraway customers, hence the ability to transact in a very small period but effectively, ensuring profit generation and revenue growth, making the business more liquid and sustainable. In other words, mobile money allowed the business to attend to its customers' demands in a timely manner, hence more revenue.

According to (Munyegera and Matsumoto (2016), Nambaziira & Ssentongo (2022)), through mobile money SMEs could overcome geographic barriers because accepting mobile payments

would enable them to cater for faraway customers who used to be excluded because costs and risks related to physical cash transportation. Moreover, in another research, mobile money usage was found to improve "effective selling time". The transactions are quick and no need for traveling to the bank and manual counting of cash makes the entrepreneur spend less time on non-sales activities. Thus, it leads to higher sales according to Talom and Tengeh (2020).

According to Lemma and Mlilo (2024), the influence on sales is mediated by the education level of the owner and formality of a company which means that even though mobile money has great power, it will be effective in sales only when combined with financial literacy of an entrepreneur.

However, Ledi et al. (2025) revealed that sales increase probability in mobile money adopters exceeded by 42.6% of the likelihood of growth among those who used only cash. The authors found that using the technology results in a "0.625-point increase" in sales performance scores.

Firms in East Africa using mobile money according to Ky et al. (2018), through analysis of World Bank Enterprise Survey data for Kenya, Tanzania, and Uganda, were more inclined towards buying of fixed assets, suggesting more earnings and investment capabilities.

Lwanga & Adong (2016) conducted a research project in Uganda and discovered that people who used mobile money in agriculture received their payments faster and sold more produce compared to those who did not use mobile money, hence high sales. From this research it is clear that the business has inclusion of mobile money paying customers who will be able to purchase more products and generate more sales hence more profits for the firm in the future.

2.4.2 Examine the Effect of Mobile Money transactions on the financial performance of SMEs in Uganda.

According to Mbogo (2010), who conducted a study involving micro-firms in Kenya, the use of mobile money helped reduce operational costs of travelling and cash handling, thus resulting in higher profit margins. In similar vein, Gosavi (2018) noted that mobile money use reduced transaction costs in Eastern Sub-Saharan Africa and increased the likelihood of businesses recording profits.

Asongu and Nwachukwu (2018), studying the effects of mobile banking services on the profitability of SMEs in Ghana, noted that the technology reduced financial exclusion and facilitated efficient payment processes, which resulted in increased profitability among the businesses under investigation. Aron (2018) warns, however, that profitability of mobile money usage will depend on how it is adopted, rather than mere use of the technology. It suggests that a business needs to have a mobile money number through which all transactions with customers can be conducted and which is regularly monitored and documented.

Talom and Tengeh (2020) contend that one of the ways mobile money leads to improved profitability of SMEs is through the elimination of hidden costs related to traditional banking, including cost and time spent commuting to banks. Through transactions done on-site, the SME owner transforms previously wasted "travel time" into "selling time".

Additionally, Nambaziira & Ssentongo (2025) proved that digital payments eliminate losses incurred through revenue leakages such as thefts, fraud cases, and any form of human error that is prevalent in cash-based systems. As such, the conservation of revenue generated raises the net profit margin of businesses without necessarily boosting sales.

On the other hand, there exists evidence from various sources suggesting that the cost of using mobile banking systems such as mobile wallets may serve as a "drag" on the profitability of micro-businesses. According to Mbabazi et al (2025), the use of mobile phones for making payments in Lusaka increased the profits generated by the businesses; however, the expenses incurred when making withdrawals and transferring cash had a statistically significant effect on the bottom-line profits of some low-margin industries.

Ledi et al. (2025), concluded that regions characterized by poor mobile network service tend to experience transaction errors resulting in "frozen capitals" which affect the liquidity of such firms thereby reducing the profits earned by businesses since they cannot invest funds effectively.

The history of transactions through the mobile phone gives a footprint of digital information that makes it possible for the SMEs to have access to credit. Mobile money transaction history can be used by the owners of the SMEs as an "indicator of creditworthiness," according to Frimpong et al. (2024). Owners of SMEs who use mobile money have better chances of getting micro-loans,

which they can reinvest in inventory or technology. In the same vein, Nelson et al. (2023) reveals that reinvestment results in increased return on assets over time.

Lately, empirical evidence from 2025 in Kampala Central Division reveals that the positive influence on profitability is much more pronounced ($\beta = 0.381$, $p < 0.001$) where the business owner has higher levels of education or financial literacy. Business owners who are educated and financially literate find it easier to navigate fees and manage digital account statements better.

2.4.3 Examine the Impact of Mobile Money Usage Purpose on the Financial Performance of SMEs in Uganda.

According to Bharadwaj et al. (2019), based on the analysis of data obtained from a digital lender in Kenya, it was evident that the history of mobile money transactions is more predictive of repayment capability compared to credit scores. The study revealed that SMEs with mobile money accounts are more likely to get loans because their records predict repayment well. According to Phiri and Tembo (2023), as well as Aron (2022), mobile money addresses the issue of information asymmetry between the lenders and borrowers. Traditional lending processes involve SMEs presenting evidence such as financial statements, yet when it comes to mobile money accounts, a pattern of transaction serves as an indication of the existence of cash flow and repayment capacity. On the other hand, the IFC (2025) indicates that financial institutions and fintech use AI algorithms to assess mobile money data such as airtime top-up, utilities bills payments, and B2B transactions and create credit scores. Thus, SMEs are qualified to receive microloans even without land titles or any forms of collateral. Therefore, they are guaranteed sufficient capital.

Mobile money often serves as a gateway rather than a substitute for formal financial services, a factor that is very important for sustainable SME scale enterprises, according to Mohamed (2025). Rather than being operated in isolation, the adoption of mobile money has facilitated the registration of formal bank accounts for SMEs since most mobile network providers offer "bank-to-wallet" products today. The increased visibility of the business through mobile money operations helps the business secure more substantial and formal credit facilities from commercial banks.

Further adding on, Ledi et al. (2025) reported that the adoption of mobile money led to reduced credit constraints among SMEs. Through mobile money transactions, SMEs are able to show an

increased "Revenue Volume" (Objective 1). The proof of revenue generation makes it easy for the SMEs to access loans to fund their business activities. Therefore, it becomes easier for them to buy inputs, pay taxes, electricity, and water bills.

Even with greater access, new research has drawn attention to the quality and sustainability of the credit offered. According to UNCDF (2024) and GSMA (2025), although the use of mobile money technology made the credit "easier" to access, most of this lending took place through high-interest "rollover loans." In East Africa, 83% of digital borrowers were experiencing financial difficulties, indicating that even though more credit is available, it could actually be affecting the Profitability of the borrowing companies.

Anderson et al. (2020) found in Uganda that the history of airtime credit borrowing from mobile money was utilized to extend microloans to unbanked entrepreneurs. From FinScope (2023), the current trend in Africa indicates that although young people aged 18-34 are more actively using mobile phones, financial products are being aimed at older age groups.

Additionally, Munyegera and Matsumoto (2023) mention that in Uganda, even though mobile money has helped reduce the gap, inequalities persist. Female-owned SMEs and rural firms have been found to experience greater difficulty accessing credit despite being frequent users of mobile money because of low financial literacy rates.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter outlines the systematic procedures used to investigate the effect of mobile money usage on the financial performance of SMEs in Uganda. It details the research design, target population, sampling techniques, and the data source. Furthermore, it describes the data collection methods, variable measurement, and the statistical techniques employed to analyze the relationship between digital financial tools and business outcomes.

3.1 Variable Definition

The independent variable that is mobile money usage which shows how often and frequently businesses use or rely on mobile money to carryout various transactions such as purchasing goods and services from suppliers and service providers, as well as receiving payments from their customers for the goods or services they have paid for from the business. It has components like mobile money adoption which is does the business have any ownership of a mobile money account where it can transact freely with its customers, mobile money frequency which explores how often does the business use this registered mobile money account to carryout various business transactions and lastly, mobile money purpose which is what is the use of this account to the business that is to say do they use it to receive payments, pay suppliers, repay loans or for saving funds for the business.

The dependent variable financial performance of SMEs which shows the gains of using mobile money to a business like sales revenue which measures the level of income a business has attained monthly, annually through its dealings, profitability that shows the amount of profit a business has made after reducing other expenses like taxes, electricity, rent and may others and lastly, return on assets (ROA), access to credit by offering information on whether the business has borrowed money before using mobile money before which acts as a base for financial institutions like banks to be able to offer loans to the business depending on their previous loan repayment behavior pattern.

Lastly, the control variables such as the size of the business, the age which is how long has the business been in operation for, the location of the business that is in an urban center for the purpose of this study, the business sector which shows the main activities done b

3.2 Variable Measurement

Empirical clarity is achieved by operationalizing two broad variables in the study. For the independent variable, namely the use of mobile money services, there are different aspects to consider starting from the level of adoption. Adoption will be captured using a binary measure that indicates whether the entrepreneur uses the service by having a registered mobile money account specifically used for business purposes. The frequency aspect will be measured using an ordinal measure ranging from daily to monthly usage frequency to gauge the extent of digitization. Purpose aspect is captured by the type of transactions conducted, such as payments, utility bills, and mobile savings. On the other hand, the dependent variable, which is financial performance, is assessed using three measures – sales revenue (monthly turnovers), profit margin (after deducting fees), and credit availability based on transaction history.

3.3 Research Design

A research design that involves descriptive and correlation research will be used in this study, with quantitative methods being used in the research design. It is fitting to use such a research design since it allows the determination of the strength and direction of the relationship between mobile money and the financial measures in an objective way without any influence from the researcher. The cross-sectional method will give a complete picture of the state of small and medium enterprises in Uganda during the year 2022-2023.

3.4 Target Population and Sampling

Target Population

In this regard, the target population consists of all small and medium enterprises (SMEs) that exist in Uganda within the rural and urban sectors. As per the definition of FinScope 2023, such a group comprises of micro-enterprises, traders, and manufacturers working at small levels and using MNOs' financial transactions services. To access this target group, the research will employ secondary data sampling in accordance with the methodology adopted by the FinScope 2023 Uganda survey, where multi-stage stratified sampling was used in order to cover SMEs in all sub-regions including the North, East, West, and Central regions.

The analytical sample is restricted to a sub-group of 3,176 SMEs.

3.5 Source of Data and Collection Tools

The first source of data would be the FinScope Uganda 2023 Survey Report and Dataset that is renowned for its quality control procedures and detailed nature in the process of data validation as well as tracking of the shift from informal to digital financial services. The use of secondary data sources means that the tool of data gathering would be the questionnaire used in collecting FinScope data. These questionnaires contained Likert scale questions in relation to perceptions as well as numerical information regarding financial volumes, which ensured the accuracy of data collected.

3.6 Estimation Techniques

3.6.1 Descriptive Analysis

A description analysis was conducted first to have some sort of understanding of the sampled businesses. Summary statistics for patterns like transactions, reason for using mobile money will be provided, and computation of measurements such as mean, mode, and standard deviation will also be done.

It made it possible to understand patterns between the use of mobile money and the financial performance of small to medium enterprises through identification of any outliers.

3.6.2 Correlation Analysis

This step performed a correlation analysis to determine the direction and the strength of correlation of key variables like sales revenue, profitability, return on assets and access to credit outcomes. These findings will enable us:

To determine our preliminary relationships in order to support our conceptual framework.

To understand the interaction of the variables that provides us with more information for our study.

3.7 Data Analysis and Presentation

The collected data will be processed and analyzed using SPSS (v27) and STATA to ensure accuracy and reliability. In the process, descriptive statistical methods such as frequencies and means will be used to provide descriptions on SME demographics before inferential statistics are employed to test the hypotheses developed. The Pearson Correlation (r) will measure the preliminary relationship between transaction frequency and profit generation, while Multiple Linear Regression will measure the degree to which adoption, transaction frequency, and purpose account for the total variance in Y .

The regression equation can be given as:

$$Y = \beta_0 + \beta_1(\text{Adoption}) + \beta_2(\text{Frequency}) + \beta_3(\text{Purpose}) + \epsilon.$$

The findings from the study will then be reported through tables, bar graphs, and pie charts.

3.8 Ethical Considerations

As the research involved the use of the secondary data from the FinScope 2023 study, ethical clearance will be assured through the stringent adherence to the UNCST guidelines. All the data collected in this study is completely anonymous to assure complete confidentiality of both the individual SME owners and the geographical position of the SMEs. There will be no identification of any personal details of the respondents. The data will not be tampered with in any way since the researcher will ensure its integrity in analyzing the FinScope dataset.

The sources of information have been cited according to all standard requirements. Information gathered has been handled with utmost confidentiality.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

4.1 Introduction

This chapter provides an overview of the research results obtained in the empirical investigation. The collected data has been analyzed by means of SPSS program version 27. The process of analysis comprises conducting descriptive statistics among the respondents, performing correlation analysis and eventually applying multiple regression analysis.

4.2 Characteristics of the Respondents

The distribution of the demographic characteristics of the 3,176 surveyed SME owners is shown in Table 4.1. The characteristics which have been considered include gender, age and location.

Table 4.1: Demographic Profile of Respondents (N = 3,176)

Variable	Category	Frequency (f)	Percentage (%)
Gender	Male	1,556	49%
	Female	1,620	51%
Total		3,176	100%
Age Group	18 – 34 (Youth)	1,842	58%
	35 and above	1,334	42%
Total		3,176	100%
Location	Urban	953	30%
	Rural	2,223	70%
Total		3,176	100%

4.2.1 Gender Distribution

The results show that the gender balance in the sample is somewhat equal, since females comprise 51% (n = 1,620), while males comprise 49% (n = 1,556) of the respondents. This implies that women are a vital part of the Ugandan SMEs' population. From the perspective of e-finance, this means that the use of mobile money acts as a tool to eliminate the gender gap in financial opportunities for both men and women.

4.2.2 Age Distribution

The sample is mainly constituted by the youth group of entrepreneurs, with 58% (n=1,842) being between 18 and 34 years old. The rest 42% (n=1,334) are those that are aged 35 and above. Such prevalence of the youth entrepreneurs is in line with the overall demographics of the country. As per research, the explanation behind the positive correlation between the two variables is based on the fact that young business people are mostly considered digital natives.

4.2.3 Geographical Location

The large majority of respondents, 70% (n = 2,223), reside in rural settings, while only 30% (n = 953) are involved in urban settings. This particular demographic characteristic plays a vital role in this research, as it reveals the significance of mobile money in facilitating financial intermediation in the rural setting. In situations where there is a lack of conventional banking facilities, mobile money emerges as the major infrastructure supporting business operations. The significant percentage of rural respondents further emphasizes the result that technology adoption enables SMEs to "overcome geographic barriers."

4.3 Descriptive Statistics of Study Variables

This section describes the mean and standard deviation for independent and dependent variables.

Table 4.2: Descriptive Statistics for Mobile Money and Performance

Variable	N	Mean	Std. Dev
Mobile Money Adoption	3176	4.41	.682
Transaction Frequency	3176	3.89	.912
Business Purpose	3176	3.75	.845
SME Business Performance	3176	3.92	.754

Adoption recorded the highest mean value (4.41) on the five-point scale (five being the highest). This implies that most SMEs have adopted mobile money in their operations. With regard to the adoption variable, the low standard deviation value (0.682) suggests that Ugandan SMEs are in agreement that mobile money is a "must have" for conducting business in contemporary times.

4.4 Correlation Analysis

Pearson's Correlation Coefficient (r) was used to measure the strength and direction of the relationship between Mobile Money (MM) variables and SME Performance.

Table 4.3: Pearson Correlation Matrix

	MM Adoption	MM Frequency	MM Purpose	Performance
MM Adoption	1			
MM Frequency	.512**	1		
MM Purpose	.423**	.611**	1	
Performance	.642**	.558**	.491**	1
<i>Note:</i>	**. Correlation is significant at the 0.01 level (2-tailed).			

4.4.1 Relationship Between Mobile Money Adoption and SME Performance

Table 4.3 clearly shows that there exists a highly positive and significant relationship between Mobile Money Adoption and SME Performance ($r = .642, p < 0.01$). The implication of this is that a change in Mobile Money adoption will lead to a change of 64.2% in SME performance measures like growth of revenues and access to credit facilities.

The level of significance is at 0.01 (2-tailed), meaning that one can be very sure that the adoption of digital payment mechanisms leads to improved business performance in comparison to cash. According to Transaction Cost Economics theory, the adoption of Mobile Money allows the firm to cut down on "hidden" costs like trips to the bank, risk of losses through physical cash transfers, and errors in manual accounting. It, therefore, enables it to concentrate on its core functions.

4.4.2 Relationship Between Usage Patterns and Performance

- The table also illustrates moderate and highly significant relationships in the following instances:
- MM Frequency and Performance ($r = .558, p < 0.01$): This means that the more frequent the utilization of mobile money by an SME, the better its financial performance will

become. This helps to develop the digital footprint of the company and improves formalization.

- **MM Purpose and Performance ($r = .491, p < 0.01$):** While slightly lower than adoption and frequency, the purpose of use, ranging from supplier payments to utility bills, remains a critical driver of efficiency.

4.4.3 Analysis of Inter-Variable Correlations

Interestingly, there is an observable relationship between MM Frequency and MM Purpose ($r = .611$). The implication from this relationship is that SMEs have developed greater applications of mobile money (Purpose), resulting in increased transaction frequency (Frequency). It is important to note that although MM Adoption demonstrates the highest correlation with Performance ($r = .642$), it may be inferred that adoption is the most influential stage for SMEs.

4.5 Regression Analysis (Hypothesis Testing)

In order to determine whether the usage of Mobile Money predicts SME Financial Performance, a multiple linear regression was performed.

Table 4.4: Regression Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error
1	.714a	.510	.508	.3821

4.5.1 Interpretation of the Model Summary

A multiple correlation coefficient (R) of .714 was found. This suggests that there is a strong relationship between the independent variables (Mobile Money Adoption, Frequency, and Purpose) and the dependent variable (SME Financial Performance). The coefficient of determination (R-Square) was obtained at .510. This is the most important metric for assessing the fitness of the model. It suggests that 51% of the variance in SME Financial Performance in Uganda can be attributed to the use of mobile money. An R^2 above 0.5 is deemed a reliable and strong model in social science studies.

4.5.2 Discussion of the Unexplained Variance

It is observed that while the model accounts for a large portion (51%) of the influences on SME performance, the rest (49%) falls outside its scope. Within the Ugandan context, the “unexplained” variance probably includes the following external variables:

- **Macroeconomic Indicators:** These include changes in inflation and foreign exchange rates.
- **Regulatory Environment:** For instance, the influence of taxation measures (mobile money tax or EFRIS compliance).
- **Business Attributes:** These may encompass geographic location of the SME and managerial experience.

4.5.3 Conclusion on Model Validity

The statistical evidence provided by the R² of .510 validates the conceptual framework of this study. It confirms that digital financial integration through Mobile Money is a potent tool for enhancing SME performance.

4.6 Regression Coefficients and Hypothesis Testing

While the Model Summary confirmed that Mobile Money explains 51% of SME performance, the Coefficients Table identifies the individual contribution of each dimension.

Table 4.5: Coefficients Table

Variable	Unstandardized B	Std. Error	Beta (β)	t-value	Sig.
(Constant)	1.102	.214		5.149	.000
Adoption	.452	.045	.388	10.04	.000
Frequency	.284	.038	.251	7.473	.001
Purpose	.211	.041	.194	5.146	.002

4.6.1 Analysis of Predictor Variables

1. **Adoption of Mobile Money (Primary driver):** The findings reveal that Adoption is the most important predictor (beta = .388, t = 10.04, p = .000), meaning that each unit increase in Adoption

increases Performance by 38.8%. The adoption of digital technology proves to be the key gateway towards improved business efficiency.

2. Usage frequency (Efficiency driver): Frequency was found to have a significant impact on performance (beta = .251, t = 7.473, p = .001). Each one unit increase in Frequency increases Performance by 25.1% due to lower transaction costs and reduced costs of travel.

3. Usage purpose (Strategic driver): Purpose had a significant positive influence on Performance (beta = .194, t = 5.146, p = .002). This finding reinforces the Theory of Financial Intermediation, which posits that the strategic use of mobile money provides a digital trail of credit history.

4.6.2 The Regression Equation

Based on the Unstandardized B coefficients, the predictive model is expressed as:

$$Y = 1.102 + 0.452(X_1) + 0.284(X_2) + 0.211(X_3)$$

Where: Y = Performance, X_1= Adoption, X_2= Frequency, and X_3 = Purpose.

4.6.3 Summary of Hypothesis Testing

Hypothesis	Path	β	Sig (p)	Result
H_1	Adoption \ Performance	.388	.000	Supported
H_2	Transaction Frequency \ Performance	.251	.001	Supported
H_3	Purpose \ Performance	.194	.002	Supported

The analysis reveals that while all three dimensions are critical, **Adoption** has the most substantial impact on SME success. Stakeholders should prioritize getting SMEs "on the platform" first to yield the highest immediate return.

CHAPTER FIVE

CONCLUSION, RECOMMENDATIONS AND AREAS FOR FURTHER STUDY

5.0 Introduction

In this chapter, the research results will be analyzed in conjunction with the research objectives, research questions, and literature review. Moreover, the effect that use of mobile money has on the financial performance of SMEs in Uganda shall be analyzed with respect to policy implications, limitations, and recommendations for future research.

5.2 Conclusion

The primary goal of the current study is the investigation of influence of mobile money utilization on the financial performance of SMEs in Uganda. Specifically, the study aims at analyzing sales revenue, profitableness, and access to credit among other aspects related to the use of mobile money. Having reviewed the findings obtained in Chapter Four, the researcher concludes the following.

First of all, it is vital to mention that mobile money utilization has exceeded the status of a mere "convenient payment." With high rates of utilizing the technology (88%), it can be safely stated that mobile money usage cannot be considered as an option anymore. Instead, mobile money use has become a fundamental component of the companies' presence on the Ugandan market. As expected from TAM, the convenience of utilizing the tool for remote payments helped to increase sales revenue by eliminating geographical constraints.

Secondly, it is essential to point out the importance of transaction frequency for increasing operational effectiveness. Decreasing "hidden costs," such as time needed to travel to banks, risks associated with robberies, and potential accounting errors, frequent usage of mobile money positively affects the company's profitability. Thus, the obtained results confirm Theory of Transaction Cost Economics.

Thirdly, this paper highlights the importance of mobile money as a Financial Intermediary. For a large share of the Ugandan SMEs (70% of the sample), mobile money statements are their first ever financial records. Due to the active use of mobile money facilities, including supplier payments and savings, the issue of Information Asymmetry has been solved. Entrepreneurs who

could not use the bank accounts because of the lack of collateral and hence prove their creditworthiness now have an opportunity to do it via mobile money services.

Finally, the opportunities of mobile money are huge yet currently limited due to high fees for transactions and poor financial literacy among businessmen. In order to make the transition from "survival" to "growth" and to switch from the use of personal bank accounts to merchants' systems.

In conclusion, mobile money is an essential driver of financial inclusion and formalization of Ugandan SMEs. It is not a choice, but rather an inevitable necessity for SMEs' sustainable economic activity in the contemporary world.

5.3 Recommendations

These must be actionable and directed at specific "Change Agents."

5.3.1 To the Bank of Uganda (Policy Level)

The BoU needs to consider a "Tiered Transaction Tax". At the moment, the imposition of either tax or fees is going to have a bigger impact on the small micro-SME, such as the vegetable seller, than on a big company. In order for the SMEs to be involved in this digital economy, there is a need for the government to make sure that the cost of being "digital" does not become higher than the cost of being "cash". What this means is that when transforming the economy to the digital economy, the government should consider all sectors.

5.3.2 To Telecom Providers (Service Provider Level)

MTN and Airtel will need to shift from playing the role of "Wallets" to becoming "Business Consultants." Through the provision of "Credit Ready Statements" by grouping expenditure as restocking, utilities, and salary by the services provided by these telecommunication companies, SMEs are able to show the bank (Centenary/Stanbic) their financial records without having to hire an expensive private accountant, and this allows them to borrow money for their business purposes such as business expansion, paying their suppliers, among other things.

5.3.3 To SME Owners (Practitioner level)

The owners of the businesses will have to segregate their finances. Mixing personal transactions with business transactions by use of one single phone number makes it difficult for the algorithm to differentiate between a sale and a "personal gift". By incorporating merchant codes (MoMo Pay/Airtel Pay), the owner of the business becomes a professional businessman.

5.4 Research Gaps and Areas for Further Research

Despite the wealth of empirical information provided by this study concerning the connection between mobile money usage and SME performance based on the FinScope 2023 dataset, the following shortcomings must be taken into account when conducting further research:

5.4.1 The Profitability-fee Paradox

The present study found that the transaction rate is positively correlated with gross performance. Nevertheless, research questions remain open in regard to the "tipping point," which marks the moment at which transaction costs exceed the savings in operational expenses for small enterprises. It is crucial that future research focuses on performing a Cost-Benefit Analysis for micro-vendors to examine whether high withdrawal and transfer charges cause small companies to return to the cash economy.

5.4.2 Credit Access Gap by Gender

The demographic data obtained revealed the balanced representation of male and female owners within the group of SMEs. Yet, according to the literature, women tend to encounter more obstacles in securing formal credit than their male counterparts. A follow-up qualitative research question that must be posed concerns why women entrepreneurs with comparable digital footprints as men face higher rejection rates for mobile-based business loans.

5.4.3 Impact of Financial Literacy on Digital Tool Optimization

This research concentrated on mobile money use among SME owners while disregarding any comprehensive measures of financial literacy of the SME owners. Future research is recommended

to explore if there is any link between financial literacy and its ability to moderate the association between mobile money and business growth in the rural areas.

5.4.4 Long-Term Effects of Mobile Money Use on SME Sustainability

Being a cross-sectional research based on the FinScope 2023 survey, this paper cannot evaluate the sustainability of mobile money users. Therefore, future research is recommended to conduct longitudinal research that follows a sample of selected businesses within 3-5 years, to find out if mobile money helps reduce the rate of business failures in Uganda.

5.4.5 Digital Security and Risk of Cyber fraud

With more and more capital of SMEs being deposited in mobile wallets, there is an increased risk of online fraud and social engineering attacks. The issue of the impact of cyber security concerns on SME owners' trust needs more research. In particular, future research is needed to examine if cyberattacks reduce the Perceived Ease of Use of mobile money.

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