MICROFINANCE MOBILE SERVICES AND FINANCIAL PERFORMANCE OF SMALL AND MEDIUM SIZE ENTERPRISES IN TRANS-NZOIA COUNTY, KENYA

Ecla Nekesa Wanyama.
Master of Business Administration Student, Department of Accounting and Finance School of Business, Economics and Tourism, Kenyatta University, Kenya.
Dr. Moses Odhiambo Aluoch (PhD).
Lecturer, Department of Accounting and Finance, School of Business, Economics and Tourism, Kenyatta University, Kenya.

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ABSTRACT

Small and medium-sized enterprises are major drives of economies worldwide constituting more than ninety percent of the industries in both developed and developing economies. However the financial performance for most small and medium-sized enterprises is declining in most economies including Kenya due various factors including shift from being product-drive to market-driven to meet their complex financial needs. Globalization, technological advancements, competition, capital adequacy and lack of financial inclusion pose significant challenges to financial viability and growth of the enterprises. Despite several challenges small and medium-sized enterprises continue to play major roles to economies. This study investigated mobile microfinance services and financial performance of small and medium-sized enterprises in Trans-nzoia County in Kenya. The specific objectives included mobile credit facilities, mobile savings services and mobile money transfer or payments on financial performance of small and medium-sized enterprises. The study further explored how entrepreneurial training moderated the relationship between mobile microfinance services and financial performance of the small and medium-sized enterprises. The study was anchored on the resource-based view theory, modern portfolio theory, Modigliani and Miller's capital structure theory, and the financial growth nexus theory from 2018 to 2023. The study employed descriptive research design, targeting 197 small and medium-sized enterprises in Trans-nzoia County. Small and medium-sized enterprises owners served as the unit of analysis, and respondents were selected through simple random sampling methods. Primary data was collected using a closed-ended, semi-structured questionnaire utilizing a five-point Likert scale. The study ensured validity by achieving a satisfactory construct score of 0.7 or higher. Quantitative data was analyzed through descriptive, correlation and multiple linear regressions, and all ethical considerations were adhered to. The study revealed significant relationships between mobile microfinance services and small and medium-sized enterprises financial performance. The moderating effect of entrepreneur training was also tested and confirmed to influence this relationship. The recommendations highlighted the need for further studies to explore additional factors influencing small and medium-sized enterprises performance, as well as the importance of enhancing financial literacy and entrepreneurial training to maximize the benefits of mobile financial services for small and medium-sized enterprises.

Keywords: Entrepreneur Training, Micro-Finance Mobile Services, Mobile Credit Facilities, Mobile Money Transfer/ Payments, Mobile Savings, Financial Performance.

INTRODUCTION

Small and medium-sized enterprises (SMEs) are crucial to economic development because of their significant contributions to the SMEs for their ability in commerce meet consumer and industrial needs, enhancing economic stability and reducing income disparity (Kaplinsky & Morris, 2019; Lu et al., 2021). By creating job opportunities and developing an experienced staff that supports future industrial growth, these businesses also significantly contribute to the fight against unemployment (Nursini, 2020; Misra & Mohanty, 2021). Furthermore, to maintain competitive economies, SMEs play a critical role in fostering entrepreneurial talent and embracing technological advancements (Del-Guidice et al., 2021; Rauch et al., 2020).

In USA SMEs constitute businesses with up to 500 or fewer employees representing 99.9 % of all US businesses, and in terms of job creation from 1995 to 2020, SMEs have accounted for 12.7 million jobs compared to 7.9 million jobs attributed to large enterprises. In addition to creating jobs, SMEs help the American economy by fostering community growth, career advancement, and enhanced public services through taxes and paychecks. They also form the basis of growth in the economy (Willetts and Atkins, 2023: Jhamb & John, 2022). In UK 99% of the enterprises of are SMEs, with over 5.7 million of them operating nationwide (Mwale, 2020). SMEs in UK and other European countries are businesses with 250 or fewer employees and such businesses are categorized with annual turnover 40 million pounds and a balance sheet total not exceeding 34 million pounds (Bassi & Guidolin, 2021). As remarked, SMEs, in the past 5 years, have created more than 2 million jobs, and currently the employment creation via SMEs stood at 16.3 million jobs representing 60% of all jobs in UK. In essence, SMEs having been identified as the ladders of high-income economies are leaning to attain economic development and prosperity (Cinar & Bilodeau, 2022: Purwandani & Michaud, 2021). In Africa SMEs have also been recognized as a factor for economic growth and development in the context of low-income economies (Okoye, et al., 2023; Opute, et al., 2021). In Nigeria SMEs totaled to 99% of all companies and contributed to 87% of employment in manufacturing and agricultural sector in Nigeria, and also accounted for 10% contribution to Gross Domestic Product (GDP) (Eniola, et al., 2019).

In Kenya SMEs have not only contributed to employment creation but also enhance economic prosperity to both individual business owners and government (Assimwe, 2021; Alumasa & Muathe, 2021; Omondo & Jagongo, 2018). In the context of Africa, however, the underwhelming performance of SMEs has made it difficult to reap its benefits (Eniola, et al., 2021; Muturi & Njeru, 2018; Rotich, et al., 2015). The World Bank (2022) states that SMEs are essential to Kenya's economic structure, accounting for more than 80% of the workforce and roughly 33% of the GDP of the nation. Despite their importance, SMEs in Kitale Town, Trans-Nzoia County, face significant challenges impacting their performance. Recent statistics indicate that approximately 70% of SMEs in Kenya struggle with access to finance, which directly affects their operational efficiency and growth prospects. Llack of adequate financial resources hinders SMEs from investing in essential infrastructure and technology, thereby impacting their overall performance and sustainability (KNBS, 2023). Moreover, the economic impact of SMEs extends beyond job creation to include substantial contributions to local

economies. In Kitale Town, SMEs are central to local economic activities, yet recent studies highlight that many of these enterprises report low growth rates and high failure rates, primarily due to limited access to microfinance services and market volatility (Omondo & Jagongo, 2023). Since SMEs are thought to be essential for poverty reduction and promoting economic development in Kenya. As noted by the International Finance Corporation (IFC, 2023), SMEs in Kenya face barriers such as inadequate financial services, which impede their ability to thrive and compete effectively. The performance of SMEs in Trans-nzoia County is indicative of broader challenges faced by similar enterprises across Kenya. Recent reports emphasize that enhancing access to microfinance mobile services can significantly improve SMEs' financial performance by providing them with better liquidity and financial management tools (KIPPRA, 2024).

Microfinance Mobile Services

Mobile services in the microfinance firm banking services most from extant literature has been conceptualized as specialized banking services for individuals or low-income earners, reason being to a large number, the SME`s are structured for small balance account service provision which in most cases not accepted by banks due to the smaller transaction fees charged in comparison to the mainstream financial sectors. Therefore, the microfinance provides financial services which include loans and deposits to low income earners, and the self-employed people who assumed to be neglected by the banking institution. In terms of transformation on mobile money transfer/payment, it has been reported that SME`s are still lagging, a negative impact leading to declined performance. There is very little literatures on consequences, challenges and antecedents in mobile money transfer/payment of SME`s banking sector, despite the economic impact it has on financial performance(Agbim, 2020; Nkwabi & Mboya, 2019).

SME`s in a global market are presented with new emerging opportunities that can be capitalized as a competitive edge in terms of improved product process and innovation of services and product in both local and international environment, Shirokova, Osiyevskyy, Laskovaia, & MahdaviMazdeh, (2020). The transition tracing back to the rising use of mobile money transfer has been rapid and has penetrated globally from 1999, 60 million customer subscriptions by 2011 an outstanding growth in comparison with other technology adoption, (Shirokova, *et al*., 2020). Therefore, the conceptualization of money transfer has been defined in extant literature as set off activities, facilities or products implemented by microfinance institution that enable sending and receiving money from one location or globally, (Must and Ludwig, 2010, Davidson & Penicaud, 2011, Shirokova, et al., 2020, Sun, Maksimov, Wang, & Luo, 2021). Other than lending, the microfinance services may also include financial and business education as well as offering checking and savings.

It has been evidenced in the past studies that the mobile services / m-banking has been of significant on boosting the operational efficiency of SMEs and as well as minimizing or reducing the cost when compared with the traditional banking especially in the Kenya context. Despite the advantages associated, the mobile money transfers or payments are still facing limitation in terms of acceptance, hence limited user in making the transaction. The other limitation can also be on battery life and the need to make device charged all the time, (Agbim,

2020, Mararo, 2018). Unlike banks, which typically do not offer small credit or loans, these institutions provide and expand credit facilities in response to the needs of their clients, this is a solution to the poor who can access the fund as well as improve the growth of capital, (Bosire, & Ntale, 2018, Audu, Abubakar, & Baba, 2021). Mobile money transfer measured using electronic fund transfers, online payment services, digital currency and unified payment interface. The variable of Mobile Transfer/Payments within the context of microfinance mobile services represents the digital transactions and payment mechanisms facilitated through mobile platforms. Various studies have delved into the conceptualization of mobile payments in microfinance. Kabinga-Makwara and Nandonde (2017) emphasize the transformative potential of mobile payments, noting its ability to enhance financial inclusion and reduce transaction costs.

Nevertheless, Song and Zhang (2018) provide a critical analysis of the difficulties that come with the widespread use of mobile payments, such as security worries and legal issues. Money transfer is the transfer of funds from the client credit cards bank account either for purpose of making some transactions or purchase, Masocha, & Dzomonda, (2018). Government subsidies, social security, financial aid and welfare are some of the examples of transfer of payments from the traditional perspective the main types of transfer of payments are checks, credit cards, debit cards and cash, but with the innovation and advancement of technology, the digital mode of payment has taken shape and has popular in the modern times, Talom, & Tengeh, (2019). Among the digital transfer of payments are electronic transfers, digital currencies, and online payment services. The transfer of fund using electronic banking from one country to another or within a country via the use of internet connection is what has been referred to as mobile money transfer/payment where transfer takes place instantly or immediately within seconds, Mararo, (2018).

Mobile Savings, another dimension of microfinance mobile services, involves the use of mobile platforms for savings-related activities. Conceptually, this variable encompasses various account types, from group savings to complex investment accounts. Jack and Suri (2014) highlight the positive impact of mobile savings in fostering a savings culture among individuals with limited access to banking services. However this might depend on socio-economic factors and individuals' financial literacy. There is need for a nuanced understanding, considering both its potential benefits and the contextual challenges associated with the diverse forms of mobile savings.Mobile saving from studies has been found of late to be recognized as a result of its significant in micro financing (Audu & colleagues, 2021).This type of saving is a tiny micro saving that consists of a small number of timely deposit accounts opened for low-income people to use as a source of future funds. In order to prevent financial waste, the minimum account balance requirement is waived; therefore, the emphasis is once more on saving money. It is one of the most convenient and secures way of getting to manage financial services on the go via use of apps without having to visit the financial branch or ATM Bosire, & Ntale, (2018). The mobile service has from the record tested to be boosting efficiency and worked well on cost minimization especially on financial institutions as compared to the traditional banking, (Kumar, and Subramanian, 2012, In

Existing research has shown a relationship between some SMEs' financial growth and their liquidity level; therefore, it is advised that businesses with higher levels of investment (high liquidity level) continue to fund projects at the same rate (2010). According to his theory, these businesses need a lot of tactics that enforce consistent saves in order to balance their profit-investment projects and maximize growth through savings initiatives that reinforce SMEs' capacity for saving. SMEs have been advised by certain studies not to place too much emphasis on their liquidity ratio, as this may lead to problems with not making prudent cash flow decisions. Saunders, Goregaokar, and Gray (2012). One may save money for a variety of purposes, including retirement, schooling, a dream home or vehicle, a trip, or even just to pay for a down payment on a property. Typically, this sum represents what remains after expenses. One conventional method is to use a savings account, where the financial organization offers a tiny interest rate in exchange for storing your funds (Akasamire, 2010, Bosire, and Ntale, 2018). This study's mobile savings were determined by group savings account, locked savings account, retail credit account and complex investment account.

Mobile Credit Facilities constitute the third dimension of microfinance mobile services, encompassing various types of credit arrangements facilitated through mobile platforms. .Blumenstock et al. (2015) provides insights into the positive outcomes of mobile credit in enhancing access to credit for SMEs. However, Bateman (2010) offers a critical perspective, questioning the sustainability and potential debt-related challenges associated with mobile credit. A mobile credit facility is a financing arrangement that offers small loans, often known as microcredit. Either a relationship model or a collective model applies to these loans. A long-term facility utilizing capital expenditure funded by financial institutions, or a short-term facility utilizing working capital that involves paying bills and creditors, can be provided by the credit facility. Trade facilitation and job development are aided by mobile credit facilities and SME performance in developing economies, particularly in Kenya. The existing literature has documented persistent declining and poor performance as well as the struggle to continue with their operations, while others are dying out by going out of business, even with the measures put in place as interventions to boost growth on such firms (Mararo, 2018, Alumasa, & Muathe, 2021 Egan, 2022). Installments, committed facilities, revolving loan facilities, and retail credit facilities are used to measure mobile credit facilities. SMEs personnel do not have adequate knowledge to embrace the benefits that come with technology (Patma et al., 2021; Tajvidi & Karami, 2021). Therefore the researcher intends to undertake an empirical study to interrogate the microfinance mobile services, and financial performance of SMEs in Trans-nzoia County, Kenya.

Entrepreneur Training

Entrepreneurial training is crucial for individuals to identify and capitalize on commercial opportunities. It instills self-esteem, imparts knowledge, and hones skills for maximizing existing opportunities. However, SMEs often face challenges in participating in financial training programs due to perceived high costs, accessing content that aligns with their needs, and time constraints. Scholars emphasize the need for tailored training programs that are cost-effective and relevant to SMEs' unique needs, fostering a skilled and empowered entrepreneurial community, Sebikari (2019) and Isichei et al. (2020). Entrepreneur training

refers to a structured educational program created by financial institutions to teach entrepreneurs or employees specific skills. The program focuses on values and fundamentals and gives participants the knowledge and mindset they need to successfully launch, manage, and expand a business. It is a rough draft that can enable one to comprehend a formed business plan as a written workbook, where lesson learnt is put ideas into paper as a way of showing the significant progress made towards launching the business or coming up with a business plan.

Entrepreneurship training is an educational process designed to equip individuals with the necessary skills to recognize business possibilities, as well as the self-worth, knowledge, and abilities to seize the moment. Initiating a company idea, managing resources, commercializing a concept, and receiving instruction in opportunity recognition are all part of got. There are several reasons why the majority of SMEs have not participated in the financial training program, including, very expensive and difficulty in accessing relevance to the enterprise needs and lack of time, OECD,(2013). Training the SME `s the required skills in the micro financing sector in order to maximize profit and minimizing on the cost through resources utilization, Sebikari, (2019, Isichei, *et al*., (2020). The impact of financial training results to improved production informal economy income and stand a chance of linking the formal with the mainstream economy, Abu-Rumman, *et al.,* (2021).

Financial Performance of SME`s in Trans-Nzoia County, Kenya.

Financial Performance of SMEs is complex given a number of factors determining it and complexity in its assessment which incorporates a range of approaches and metrics. Research in the area (Jones & Smith, 2021; Brown et al., 2022) stresses the significance of using ROI and ROA to evaluate the financial outcomes of SMEs. Utilizing financial indicators, which demonstrate the soundness and stability of an organization's finances, is one of the primary elements of performance measurement. Research by Kaplan and Norton (1996) highlights the significance of financial metrics, such as revenue growth, profitability, and return on investment, in assessing an organization's overall performance. These indicators offer quantifiable, quantifiable insights into an organization's sustainability and financial success. Metrics related to environmental sustainability, corporate social responsibility, and community involvement can be used to understand an organization's performance in its entirety.

SMEs have demonstrated a decline in their financial performance. It is noteworthy that the non-performing ratio to gross loans for SMEs has improved by 3.1%. This concerning trend has prompted calls for financial management intervention for growth and sustainability of SMEs (Pearce et al., 2011). The contrasting trajectories highlight the need for targeted strategies to support the resilience and prosperity of SMEs in Kenya, a vital component of the country's economic landscape. Therefore from the aforementioned backdrop, the study determined the effect of Mobile Services and financial performance of SMEs in Trans-nzoia County in Kenya. Additionally, on the context of extant literatures, it’s evident that researchers employed the nature of financial metrics in its effort to establish the firm performance, therefore leaving a gap that scholars call for attention towards addressing it by adoption of financial performance perspective.

Muturi, & Njeru, (2019) posit that the post COVID-effect is still causing havoc that has resulted to decrease interest income, declined loan portfolio, increased level of NPLs and low credit uptake. Other cost incurred as per the report were increased staff cost, financial cost and administrative cost, while there was a decline on ROA, and ROI to negative percentage (-3% and -28%) respectively. There was increased growth on customer's deposit, increased loan repayment default, while the number of capital level declined. These metrics provided tangible measures of success and are crucial for stakeholders, including investors and creditors, in evaluating the financial health and viability of businesses.

Small and Medium Size Enterprises in Trans-nzoia County, Kenya

SMEs are broad group of companies whose sizes are determined by a variety of metrics. Different countries may have different definitions for SMEs, but generally speaking, the number of workers, revenue, and capital are considered key indicators. Recent research (World Bank, 2021; European Commission, 2022) indicates that the definition of SMEs frequently depends on employee count, with the threshold varying from fewer than 50 to 500 employees, contingent upon the sector and nation. SMEs are typically characterized by a moderate annual turnover in terms of revenue, and they are thought to require less capital than larger enterprises.SMEs are frequently grouped in Trans-Nzoia County, Kenya, according to their annual turnover and employee count. Recent research indicates that businesses in Kenya with less than 100 workers and yearly sales between KSh 500,000 and KSh 1 billion are typically categorized as SMEs (Chirchir et al., 2021; Ndemo & Owuor, 2020). SMEs are also defined by their restricted access to resources and capital, which leaves them dependent on alternative financial services and microfinance organizations for their working capital requirements (Kipkorir & Keter, 2022; Mutai et al., 2021). These businesses are essential to promoting economic expansion in the area because they generate jobs, foster innovation, and reduce poverty. Therefore, defining SMEs in terms of their revenue, size and access to resources is essential for understanding their significance and impact on the local economy in Trans-Nzoia County, Kenya.

According to (KNBS, 2022) SMEs in Trans-Nzoia County have grown to be an important source of new jobs, employing a sizable percentage of the local labor force. Furthermore, information from the same source emphasizes the variety of industries these businesses work in, from manufacturing and services to agriculture. A number of factors supported by recent research lend scientific justification to the study (SMEs) in Trans-Nzoia County, Kenya, in the context of microfinance mobile services. First off, taking into account the rapidly changing nature of technology and its ubiquity in the financial industry, the chosen timeframe permits a thorough examination of the influence of microfinance mobile services on SME performance. The growing importance of mobile financial services in improving financial inclusion and credit availability for small and medium-sized enterprises (SMEs) is highlighted by Kipkorir and Keter (2022) and Mutai et al. (2021), indicating the need for a study on their performance during this time frame. Additionally, the chosen timeframe enables the examination of any trends or fluctuations in SME performance in response to changes in mobile financial services, as highlighted by Nyambura and Mwangi (2023) and Kamau et al. (2022).

Based on the reviewed body of literature, the researcher determined that management in the financial sector lacked clarity regarding the impact of microfinance mobile services provided by SMEs and how they affect entrepreneur training practices (Mararo, 2018; Bosire & Ntale, 2021; Egan, 2022). Thus, the study concluded that, in order to determine the impact of microfinance mobile services on the performance of a few selected SME's in Trans-zoia County, Kenya, a thorough and comprehensive evaluation of the current literature was required. This conclusion was drawn from the examined literature. The moderating influence of entrepreneur training is also examined in this study in relation to the link between the outcome variable and the predictor variable. In Trans-nzoia County, 197 registered SMEs were the subject of the study.

Statement of the Problem

For a long time, SMEs have been predominantly product-driven, focusing on product availability rather than on a more comprehensive financial strategy. This approach has left many SMEs with unmet needs for advanced credit facilities and financial services. As highlighted by Kaplan and Haenlein (2011), and further supported by Fatuma et al. (2020), as well as Kwamboka and Sang, (2019), the traditional financial structures are often inadequate for meeting the complex needs of SMEs, which are crucial for employment generation and economic growth. The shift towards more efficient and accessible financial solutions, such as microfinance mobile services, is necessary to address these gaps and enhance SME performance. However, the transition from conventional to innovative financial solutions has not been fully realized, particularly in regions like Trans-Nzoia County, where SMEs face significant barriers to accessing capital (Zeiller & Schauer, 2011; Stockdale et al., 2012). In Kenya, SMEs encounter substantial challenges related to accessing credit facilities due to limited assets and financial resources. This issue impedes their growth and negatively impacts their performance. The problem is particularly acute in Trans-Nzoia County, where a high rate of business failure is attributed to inadequate financing and poor management (Ng'ang'a et al., 2023). According to Ouma and Odongo (2020), this lack of financial support is a core issue that stifles SME development and employment opportunities in the region. The high failure rate among new businesses in Trans-Nzoia County, with one out of six failing due to undercapitalization within the initial months of operation, underscores the urgent need for improved financial support mechanisms (Mutai et al., 2021).

The conceptual there is non-conclusive effect between microfinance mobile services and the performance of SMEs in Trans-Nzoia County. Recent studies highlight the need for a detailed exploration of how mobile financial services impact the financial health and sustainability of SMEs (Ouma & Odongo, 2020; Ng'ang'a et al., 2023). These studies underscore the importance of developing a robust theoretical framework that clarifies the mechanisms through which mobile finance influences SME performance. Such an understanding is critical for creating effective policy recommendations and strategic interventions for SMEs success. Contextually, studies of microfinance mobile services and financial performance on SMEs in Trans-Nzoia County may be influenced by other factors including local economic conditions, regulatory frameworks, and technological infrastructure, which differ significantly from other regions (Kipkorir & Keter, 2022; Mutai et al., 2021; Kwamboka & Sang, 2019). These studies

emphasize the necessity of contextualizing research to address the specific challenges and opportunities unique to SMEs in Trans-Nzoia County. Without considering these local nuances, interventions may fail to align with the actual needs of SMEs, thus reducing their effectiveness in improving business performance. Methodologically, previous used different conceptualization for independent, moderating and depending variables (Nyambura & Mwangi, 2023; Kamau et al., 2022). Current research shows inconsistencies and conflicting results, highlighting the need for empirical studies that employ rigorous methodologies. This study addressed conceptual, methodological and contextual gaps by conducting an empirical investigation into both the direct and moderating effects of microfinance mobile services on SME performance, including the role of moderating constructs in Trans-Nzoia County.

Objectives of the Study

The general objective was to investigate the effect of micro finance mobile services on financial performance of small and Medium Size Enterprises in Kitale town, Trans-nzoia County, Kenya. The Specific Objectives of the Study were:

(i) To determine the effects of money transfer/payment on financial performance of Small and Medium enterprises in Trans-nzoia County, Kenya.

(ii) To establish the influence of mobile savings on financial performance of Small and Medium Enterprises in Trans-nzoia County, Kenya.

(iii) To evaluate the effect of mobile credit facilities on financial performance of Small and Medium Enterprises in Trans-nzoia County, Kenya.

(iv) To determine the effect of social media services on financial performance of Small and Medium Enterprises in Trans-nzoia County, Kenya.

(v) To examine the moderating effect of entrepreneur training programs on the relationship between microfinance mobile services and financial performance of Small and Medium Enterprises in Trans-nzoia County, Kenya.

Research Hypotheses

This research tested the following hypotheses:

H_{01}: Money transfer/payment has-no-significant influence on financial performance of Small and Medium Enterprises in Trans-nzoia County, Kenya.

H_{02}: Mobile savings has-no-significant influence on financial performance of Small and Medium Enterprises in Trans-nzoia County, Kenya.

H_{03}: Mobile credit facilities has-no-significant influence on financial performance of Small and Medium Enterprises in Trans-nzoia County, Kenya.

H_{04}: Social media services have no significant impact on financial performance of Small and Medium Enterprises in Trans-nzoia County, Kenya.

H_{05}: Entrepreneur training has no significant moderating influence on the relationship between microfinance mobile services and financial performance of Small and Medium Enterprises in Trans-nzoia County, Kenya.

Scope of the Study

The scope on geographical, chronological, and conceptual was designed. Geographically Trans-nzoia County was chosen for the study because of its unique economic profile and thriving entrepreneurial scene. With a sizable agricultural base and a developing SME sector, this region offers a distinctive setting for researching how mobile banking services affect SMEs. Studies highlighted the significance of local context in comprehending the dynamics of SMEs and customizing efficient policy interventions (Kipkorir & Keter, 2022; Mutai et al., 2021). The study clarified the unique problems and prospects encountered by SMEs in this area, offering valuable perspectives for regional economic development plans. The periodic scope was from 2018 to 2023 which assisted in the inclusion and exclusion criteria.

In order to represent the most recent trends and technology improvements in mobile financial services, the study looked at developments that have occurred between 2020 and 2024. This time frame was essential for understanding the state of mobile financing today and how it affects the performance of SMEs. Understanding the present impact of digital financial tools on SMEs requires an up-to-date research due to their quick evolution and integration into business procedures.(Nyambura & Mwangi, 2023; Kamau et al., 2022) were two recent studies that emphasized the need of taking temporal consideration into account when evaluating technology adoption and its effects on business outcomes. They also emphasized the importance of incorporating recent data to the study. The study conceptually covers important factors such as mobile money transfers, mobile savings, mobile loan facilities, and entrepreneur training that are connected to SME success. These factors have been chosen because they are important for both business expansion and financial management. The overall objective of the study was to determine effect of mobile financial services on financial performance of SMEs in Trans-nzoia County, Kenya.

LITERATURE REVIEW

Theoretical Review

The three primary theories that underpinned the discussion were Modern Portfolio Theory (MPT) , Financial Growth Nexus Theory and Resource-Based View Theory.

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Modern Portfolio Theory (MPT)

Harry Markowitz developed modern portfolio theory (MPT) in 1952. It is a foundational theory in financial management that offers a framework for maximizing investment portfolios through risk and return balancing (Markowitz, 1952). The fundamental tenet of MPT is that an investor can build an asset portfolio that minimizes risk for a given level of expected return, or maximizes expected return for a given level of risk (Markowitz, 1952). The foundation of MPT is the diversification principle, which states that having a range of assets can lower overall portfolio risk. This is achieved by combining assets that do not perfectly correlate with one another, thereby smoothing out the impact of individual asset fluctuations on the portfolio's performance. In the context of microfinance mobile services, particularly Mobile Transfer/Payments, MPT's principles are applicable as they involve the allocation of financial resources across various payment channels and methods. By diversifying the methods through

which transactions are conducted, businesses and individuals can manage and mitigate the risks associated with each payment channel. For instance, Suh and Han (2002) applied MPT principles to mobile financial transactions, highlighting the role of diversification in optimizing the risk-return profile of mobile payments. Similarly, Grubel and Statman (1979) underscored the importance of diversification in financial decision-making, providing empirical support for MPT's applicability in assessing investment strategies.

However, MPT is not without its criticisms. The theory relies on assumptions that may not always align with real-world conditions, such as the normal distribution of asset returns and constant correlation between assets. Furthermore, MPT assumes that historical data can accurately predict future market behavior, a premise that may not hold true in rapidly evolving markets, such as those involving mobile financial services (Markowitz, 1952; Grubel & Statman, 1979). The emerging gap in MPT research within the mobile payments sector includes investigating how technological advancements, regulatory changes, and evolving market dynamics impact the traditional risk-return trade-off posited by MPT (Suh & Han, 2002). This research can contribute to refining MPT to better accommodate the unique challenges and opportunities presented by modern mobile financial services.

Financial Growth Nexus Theory

The Financial Growth Nexus Theory examines the dynamic relationship between financial development and economic growth. It was first put forth by Bagehot in 1873 and later improved upon by Solow in 1956. According to this theory, small and medium-sized businesses (SMEs) are impacted by rising demand for financial services, which is both a cause and an effect of economic growth. Further developing this theory, Schumpeter (1911) contended that financial development promotes economic growth through mechanisms such as innovation and capital accumulation. In the context of microfinance mobile services, this theory suggests that innovations in financial services, such as mobile payments, can enhance the financial accessibility and operational efficiency of SMEs, thereby improving their performance (King & Levine, 1993; Beck, Demirgüç-Kunt & Levine, 2007). Recent studies have expanded on the Financial Growth Nexus Theory, examining its implications at both macroeconomic and microeconomic levels. King and Levine (1993) demonstrated that financial development positively affects economic growth by increasing productivity and fostering innovation. Similarly, Beck, Demirgüç-Kunt, and Levine (2007) investigated how advancements in financial services contribute to economic development. These findings are pertinent to understanding how microfinance mobile services impact SME performance. While the theory has traditionally been applied to broader economic contexts, it offers valuable insights into how financial innovations at the micro-level can drive SME growth (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2011; Demirgüç-Kunt & Klapper, 2012).

The Financial Growth Nexus Theory is instrumental in linking financial development, facilitated by mobile services and entrepreneur training, to SME performance. It provides a framework for exploring how financial growth, driven by these services, influences various performance metrics of SMEs. This theoretical approach underscores the significance of financial development in enhancing SME performance through improved customer relations,

innovation, and technology adoption. However, critics argue that the theory's macroeconomic focus may not fully address the unique challenges faced by SMEs (Levine, 2005; Rajan & Zingales, 1998). Addressing these criticisms, the study utilize the Financial Growth Nexus Theory to examine the interplay between microfinance mobile services, entrepreneur training, and SME performance, aiming to fill empirical gaps and provide a nuanced understanding of financial growth at the microeconomic level.

Resource-Based View Theory

Penrose (1959) proposed The Resource-Based View theory (RBV). The theory provides a fundamental viewpoint on how businesses can create and maintain a competitive advantage through the strategic management of their internal resources. It was first put forth by and later developed by Derrick and Cool (1989) and Barney (1991). According to Barney (1991), the Resource-Based View (RBV) theory states that a company's competitive advantage stems from its capacity to obtain, create, and employ rare, unique, and non-replaceable resources. These resources can be tangible, such as physical assets and financial capital, or intangible, including organizational culture, employee skills, and intellectual property (Penrose, 1959; Barney, 1991). The theory underscores that firms with superior internal resources are better positioned to create distinctive value, respond to market changes, and outperform competitors (Derrick & Cool, 1989). In the context of Small and Medium Enterprises (SMEs) in Trans-Nzoia County, Kenya, the RBV theory provides a lens through which to examine the impact of microfinance mobile services and entrepreneurial training on performance outcomes. Microfinance mobile services—encompassing mobile credit facilities, money transfers, and mobile savings—can be seen as valuable resources that SMEs can leverage to enhance their financial capabilities and operational efficiency. According to Owoeye et al. (2020), these services offer SMEs access to critical financial resources, which are essential for improving their market position and overall performance. Entrepreneurial training, on the other hand, represents a strategic investment in human capital, enhancing the skills and competencies of SME owners and managers, thereby contributing to the development of unique capabilities and competitive advantages (Grunert & Hildebrandt, 2004; Prajogo & Oke, 2016).

The RBV theory suggests that the successful integration of microfinance mobile services and entrepreneurial training into SME operations can lead to superior performance by enabling firms to harness their internal resources more effectively. For instance, by utilizing mobile financial services, SMEs can improve their liquidity management, reduce transaction costs, and expand their market reach. Concurrently, entrepreneurial training can bolster managerial skills and innovation, leading to more efficient business processes and strategic decision-making (Teece, Peteraf, & Leih, 2016). Despite some criticisms that the RBV theory may overestimate the potential of internal resources (Almarri & Gardiner, 2014), it remains a robust framework for understanding how resource management influences SME performance. This study leverage the RBV theory to explore how microfinance mobile services and entrepreneurial training impact SME performance in Trans-Nzoia County, contributing to a deeper understanding of how internal resources drive competitive advantage and sustainability in the context of emerging economies.

Empirical Review

Mobile Money Transfer/Payment and Performance of SME`s

Kraus and Damke (2019) investigated the role of digital technology identification within SMEs, highlighting that SMEs possess unique strengths, such as flexibility and a cohesive culture, which facilitate digital transformation. Their findings emphasize that SMEs, due to their small size, can quickly embrace innovations and digital technologies, thus gaining a competitive edge over larger firms. However, a significant gap identified in their study is the lack of focus on how policy makers and management's willingness to engage with digital technologies impacts the adoption process. This study did not fully explore the broader implications of managerial attitudes and policies on digital transformation within SMEs. The current research aims to address this gap by examining how the attitudes and policies of SME management influence the adoption and effectiveness of microfinance mobile services, particularly in the context of Trans-Nzoia County, Kenya.

Ferreira et al. (2019) provided a comprehensive overview of digitalization and digital transformation, noting that most research focuses on large firms, leaving a substantial gap in understanding these phenomena within SMEs. There is a lot of research on digital strategies and entrepreneurship, but little empirical data is available to support the unique advantages and difficulties of digital transformation for SMEs. The study also highlights the lack of research on digital transformation in smaller businesses, where scope and resources are frequently limited (Ferreira et al., 2019; Li et al., 2018). By concentrating on the influence of microfinance mobile services on SME performance in Trans-Nzoia County, this study fills in these gaps and offers fresh perspectives on how digital tools impact small business performance in low-resource environments.

Verhoef et al. (2019) differentiated between digitalization and digital transformation, arguing that SMEs often struggle with the complexity of digital transformation, which can overwhelm available resources. Their research suggests that SMEs should first focus on digitalization as a prerequisite for successful digital transformation. This approach highlights the need for a clearer understanding of digital readiness and the incremental steps required for effective transformation (Verhoef et al., 2019). The current study builds on this by investigating how different stages of digitalization impact SME performance, particularly through mobile financial services. This study fills in the methodological and contextual gaps found in earlier research by examining the relationship between digital readiness and performance outcomes in SMEs. It provides a more nuanced understanding of how microfinance mobile services can support the digital transition and improve business performance.

Mobile Savings and Performance of SME`s

To investigate the effect of microfinance firm services on SME performance in Nigeria, Audu et al. (2021) employed a cross-sectional descriptive design using SPSS data analysis. Microloans, micro savings, and training had a good and significant impact on the performance of small and medium-sized firms; these benefits were operationalized in the study using sales

growth, profitability, and market share. Despite these discoveries, the report contains a few large gaps. The ways that specific microfinance service characteristics, such as mobile banking, affect financial outcomes in an environment that is conceptually fast digitizing were not examined in this study (Audu et al., 2021). Assessing causal correlations across time is more challenging when cross-sectional data is used, due to methodological issues. The present investigation fills in these gaps.

Munyao (2021) examined the effect of microfinance services on SME growth in Nairobi County, Kenya, using a casual design and primary data from 37,101 SMEs. The study found that, in spite of investments in mobile banking systems, the tested SMEs' net profit margins were declining. The study's focus on micro insurance, microcredit, and micro savings provided a broad conceptual framework, but it fell short in addressing the ways in which mobile services affect the performance of small and medium-sized enterprises in a dynamic financial landscape (Munyao, 2021). Methodologically, the huge sample size of the study may have obscured contextual factors and individual differences that influence the efficacy of microfinance. In order to capture the context-specific issues and offer a more nuanced exploration of the specific consequences of mobile financial services, the current study incorporates qualitative findings.

Shkodra (2019) studied effect of microfinance on the financial performance of microfinance organizations in Kosovo using data from 2016 to 2017 and SPSS for analysis. Despite finding a strong association between mobile banking and financial success, the study focused primarily on profit margin, return on assets, and operational self-sufficiency. One conceptual drawback of this study is that it only operationalized performance criteria that were exclusive to high-interest loans, ignoring the wider implications of mobile financial services. Methodologically, the descriptive character of the study and its focus on a confined geographic area hinder generalizability. By extending the scope of performance metrics and investigating how mobile services affect SMEs in Kenya, this study fills in these gaps and offers a more comprehensive insight of mobile financial services' impact on performance across different contexts.

Mobile Credit Facilities and Performance of SME`s

Egan (2022) examined the acceptance of mobile phone credit and savings services as well as their influence on SME performance in Kisii, County using stratified sampling and a cross-sectional descriptive technique. The study discovered that mobile finance and saving services had a favorable effect on the performance of SMEs. However, it was largely focused on Kisii, County and did not account for potential contextual differences in other regions (Egan, 2022). This study draws attention to a conceptual gap in our knowledge of how the beneficial impacts shown in Kisii, County could or might not transfer to Trans-Nzoia County, given the potential differences in the county's economic circumstances and degree of technological adoption. In order to fill this gap, the current study focuses exclusively on Trans-Nzoia County to determine whether the observed benefits are consistent in several locations with diverse socioeconomic backgrounds.

Alumasa and Muathe (2021) focused on factors such lending prices, regulations, and loan quantities when examining how mobile finance facilities affected the performance of small and

medium-sized enterprises in Kenya. The study offered insightful information, but it also showed that the performance of SMEs was significantly harmed by the cost of mobile loans. The study's investigation of the whole range of mobile microfinance services, including as savings and payment services, was constrained. This draws attention to a methodological flaw in the analysis of the overall effects on SME performance of the different elements of mobile microfinance services. By include a thorough analysis of mobile credit, mobile savings, and mobile payments, the current study seeks to close this gap and provide a more comprehensive understanding of how these services interact to affect SME performance.

Moussa (2020) focused on gender differences and sectoral advantages, she did not take into consideration the wider regional variances and methodological rigor necessary for findings that might be applied to other contexts. Nevertheless, her analysis offered insights into microfinance lending in Lebanon. In order to close these gaps, the current study looks at the unique circumstances of Trans-Nzoia County, employs a strong research methodology to investigate the impact of microfinance mobile services on SME performance, and takes into account local variables that affect financial performance and accessibility.

Microfinance Mobile Services, Entrepreneur Training and Performance of SME`s

Abu-Rumman, Al-Shraah, Al-Madi, and Alfalah (2021). Studied the moderating influence of dynamic capabilities, although it did not address the broader context of microfinance mobile services in Jordan. This omission constitutes a serious conceptual gap, especially in light of the growing significance of mobile financial services in improving the performance of SMEs. Although the study showed that dynamic capabilities had a significant moderating effect on performance, it did not take into account the potential affect or interaction of these services with performance measurements. By combining the influence of microfinance mobile services and investigating their possible moderating effects on SME performance in Trans-Nzoia County, Kenya, this study seeks to close this conceptual gap .

Wahyuni and Sara (2020) studied the impact of entrepreneurial orientation on SME performance in Indonesia. The study used both descriptive and inferential statistics, their study was primarily concerned with three orientations: market, learning, and entrepreneurial. The methodological flaw in this case is the disregard for new developments in technology and how they affect performance indicators. This disparity is noteworthy because the incorporation of contemporary technology tools, such mobile financial services, may offer fresh perspectives on performance assessment. In order to close this gap, the current study evaluates the effects of technological factors on the performance of SMEs, with a focus on mobile loan facilities and savings services. A more holistic understanding of the elements influencing performance can be obtained by using a more thorough technique that takes these variables into account.

Sawaean and Ali (2020) used a large sample size and quantitative research to look into the effects of learning orientation and entrepreneurial leadership on SME performance in Kuwait. The limitation of their study to Kuwait, however, may mean that it ignores the particular difficulties that SMEs in other areas like Kenya's Trans-Nzoia County face. There is a big contrast between the two contexts because of the different economic situations, legal

frameworks, and technology infrastructures. In order to better understand the effects of microfinance mobile services, this study addresses this constraint by concentrating on the Trans-Nzoia County environment and taking into account the local economic climate and technology infrastructure. The study attempts to deliver insights that are immediately applicable to SMEs in this region and solve the particular challenges by customizing the research to the local environment.

Conceptual Framework

In order to bridge the research construct (entrepreneur training) as shown in the conceptual framework and address emerging research gaps, the conceptualized model developed for this study was used to express the directions of relationships between Microfinance mobile services and SME's performance.

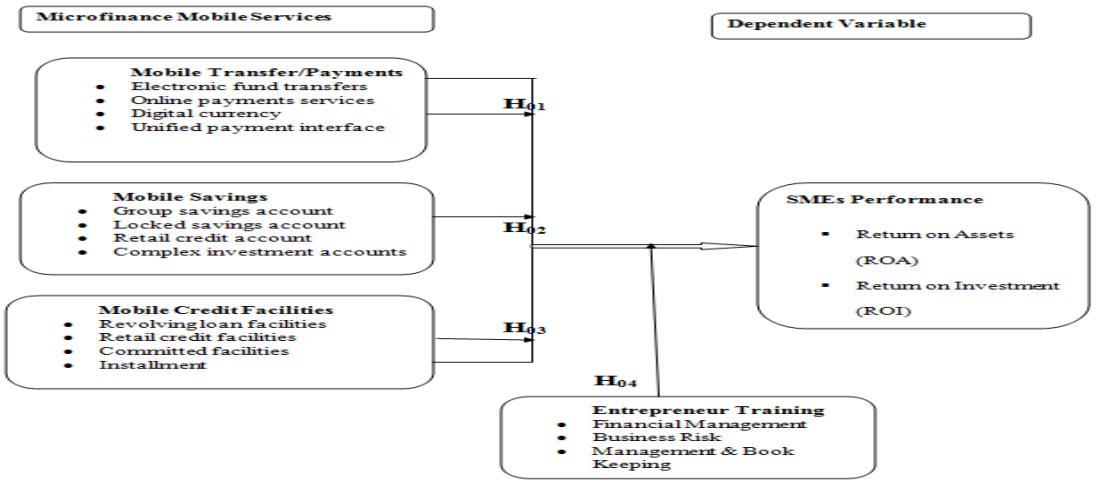

Figure 2.1 Conceptual Framework
Source: Researcher, (2024)

RESEARCH METHODOLOGY

Research Design

The study used descriptive research design. This is a systematic approach meant to gather in-depth information about a population or phenomenon under investigation (Saunders, Lewis, & Thornhill, 2009). This approach was relevant to the current study since it examined and the effect microfinance mobile services and financial performance of SMEs in Trans-Nzoia County, Kenya. The descriptive research approach focuses on obtaining several metrics and indicators that provide a comprehensive investigation of the variables at play and how they interact with relation to mobile transfer/payments, mobile savings, mobile credit facilities, and entrepreneurship training.Descriptive research designs were best suited for studies that sought to give detailed explanation of the characteristics and relationships between variables without altering them (Creswell & Creswell, 2017). The descriptive design of this study allowed for the systematic collection and analysis of data to understand the ways in which microfinance mobile services impact SMEs. Descriptive research designs were best suited for studies that sought to provide a comprehensive explanation of the characteristics and relationships between

variables without altering them (Creswell & Creswell, 2017). The descriptive design of this study allowed for the systematic collection and analysis of data to understand the ways in which microfinance mobile services impact SMEs performance. Ayyagari, Beck, and Demirgüç-Kunt (2011) conducted a study that effectively employed a similar approach, utilizing a descriptive framework to investigate the impact of small and new enterprises on employment and growth.

Empirical Model

The rough estimate of the empirical model was presented in this section along with the identified relationships that were illustrated in the conceptual framework. The performance of SMEs, which was the dependent variable, and microfinance mobile services, which was the independent variable, are conceptually related. The moderating construct of entrepreneur training, which was tested, was also presented. To test for both direct and moderating effect, the study use a multiple regression analysis model, a statistical parameter technique considered robust in ascertaining the casual effect through a 5-pointer Likert scale. To ascertain the strength and the effect of the predictor constructs, money transfer/payments, mobile saving and mobile credit facilities regressed against the following parameters.

$$\textbf{PSME`s} = \beta_{01} + \beta_1 \textbf{MTP} + \beta_2 \textbf{MS} + \beta_3 \textbf{MCF} + \varepsilon \quad \textbf{.....3.1}$$

Where; PSME`s = Performance of SME`s , MTP = Money Transfer/Payments , MS =Mobile Saving, MCF =Mobile Credit Facilities, β_{01}= Beta Coefficient, ε= Error Term

In order to regress the moderating effects of entrepreneur training, a prior test on the composite indices on the 2 dimensions calculated. To determine the composite index value for each model, the quantitative data from the 5-point Likert scale transformed using a harmonic mean (Gupta 2008, Kilika, 2012). The indices are derived using the formula for harmonic mean. Using the following formula, based on the relative weight resulting from the number of items in the research tool for each study variable: model 3.2 was used as the base model.

$$\textbf{PSME`s} = \beta_{05} + \beta_{06}\,\textbf{MMS} + \beta_{07}\,\textbf{ET} + \varepsilon \ldots\ldots \quad \textbf{.....3.2}$$

$$\textbf{PSME`s} = \beta_{08} + \beta_{09}\textbf{MMS} + \beta_{10}\textbf{ET} + \beta_{11}\textbf{MMS} * \textbf{ET} + \varepsilon \ldots\ldots \quad \textbf{.....3.3}$$

Operationalization and Measurement of Research Variables

This study found out how portfolio composition relates to financial performance. The study utilized quantitative data for testing the extent of the relationship between the study variables.

Table 3.1 Operationalization and measurement of Variables

Variable	Type	Operationalization	Measurement	Measurement Scale	Hypothesized direction
SMEs Performance	Dependent	Overall success and financial health of SMEs, measured through various performance metrics.	Return on Assets(ROA) Return on investment (ROI)	Likert Scale	Positive/negative
Mobile Transfer/Payment.	Independent	Services enabling SMEs to conduct financial transactions via mobile technology.	Electronic funds Transfer Online payment Services Digital Currency Unified paymet interface.	Likert Scale	Positive/negative
Mobile Savings	Independent	Savings services offered through mobile platforms that allow SMEs to save money.	Group savings Account. Locked Savings Account Retail Credit Account. Complex Investment Account	Likert Scale	Positive/negative
Mobile Credit Facilities	Independent	Financial services provided through mobile platforms that offer credit to SMEs.	Revolving loan facilities. Retail credit facilities. Committed facilities. Installments	Likert Scale	Positive/negative
Entrepreneurial Training	Moderator	Educational and developmental activities aimed at enhancing entrepreneurial skills.	Financial Management Business Risk Management Book keeping	Likert Scale	Positive/negative

Source: Researcher (2024)

Target Population

197 Trans-Nzoia County, working in a variety of industries, including construction, banking, trade and commercial services, and agriculture, make up the study's target population. The necessity to gather a varied but controllable sample which reflects the features of the county's larger SME landscape served as justification for this decision. Research by Ayyagari, Demirgüç-Kunt, and Maksimovic (2011) emphasizes how crucial it is to consider small and medium-sized enterprises when studying economic development and growth. The main focus of the study was proprietors and staff members of these SMEs. The manageability and practicality research design principles were adhered to in the choice of a sample size of 197 SMEs (Creswell, 2014). Given the resources and constraints at hand, a focused approach to a specific number of SMEs allowed for a comprehensive analysis and comprehension of the impact of microfinance mobile phone services on their performance. This method also complied with the suggestions made by Mugenda and Mugenda (2003) for choosing a sample size that is practical and representative for a full investigation. The current study focused on SMEs was in line with its goal of comprehending how mobile financial services could improve the performance of small and medium-sized businesses. The goal of the research was to give a thorough understanding of the ways in which mobile financial services affected different facets of Trans-Nzoia County.

Sampling Techniques and Sample Design

The atudy employed to ensure the inclusion of all 197 SMEs identified in the study. Given that it enabled thorough data collection from all population members, this strategy was ideal for small populations and improved the level of representation and ability to be generalized of the results (Hair et al., 2019). The application of this strategy to obtain a high degree of accuracy and dependability in the results was supported by the census sampling central theorem, which promotes the inclusion of every population member when practical. Both probability and non-probability methods used in a mixed sampling technique to improve the data collection process. To be more precise, purposive sampling used to choose participants, with an emphasis on finding important informants within each of the 197 SMEs. This method was particularly effective in qualitative research for selecting individuals with specific expertise and relevance to the research objectives (Saunders et al., 2018, Kwamboka & Sang, 2019). By targeting SME owners who had in-depth knowledge of their enterprises and the impact of microfinance mobile services, the study aimed to obtain rich, contextually relevant data.

In alignment with the central theorem of sampling, which emphasizes the importance of selecting appropriate sampling methods to match research goals, the combination of a census approach and purposive sampling ensures that the study captures a comprehensive view of the SME landscape in Kitale Town. This approach to methodology not only optimized the precision of the results but also guaranteed that the information acquired is profoundly influenced by the encounters of important players in the SME industry (Bryman, 2021). It was anticipated that the incorporation of these sampling techniques offered a strong basis for examining how microfinance mobile services affected the performance of SMEs in the area.

RESULTS AND DSICUSSIONS

Correlation Analysis

Linearity in this study was assessed by examining the Pearson's correlation coefficients among the various constructs, as suggested by Field (2013). Pearson’s correlation coefficient is commonly used to measure the strength and direction of linear relationships between variables (Dancey & Reidy, 2004). and result presented in the Table 4.1:

Table 4.1: Correlations Analysis

		Money transfer/payments	Microfinance mobile savings	Mobile credit facilities	Enterpreneur training	Financial Performance
Money transfer/payment		1				
Microfinance mobile savings		.781**	1			
Mobile credit facilities		.677**	.747**	1		
Enterpreneur training		.595**	.573**	.536**	1**	
	Financial Performance	**.497****	**.412****	**.376****	**.469****	**1****
	Sig.	.000	.000	.000	.000	
	N	152	152	152	152	152

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data (2024)

The results, presented in Table 4.1, show significant correlations between all constructs, with coefficients ranging from 0.376 to 0.781. Specifically, Money Transfer/Payments had a correlation of 0.497 with Financial Performance, Microfinance Mobile Savings had a correlation of 0.412, Mobile Credit Facilities had a correlation of 0.376, and Entrepreneur Training had a correlation of 0.469, all significant at the 0.01 level ($p < 0.01$). These significant correlations indicate that the variables are linearly related, thereby satisfying the linearity assumption necessary for valid multiple regression analysis (Field, 2013; Dancey & Reidy, 2004). Therefore, the data meets the criteria for linearity, making it appropriate for further hypothesis testing and analysis.

Regression Analysis

This study aimed to explore both direct and indirect relationships among key constructs related to microfinance mobile services and SME performance, with a specific focus on the moderating role of entrepreneur training. To achieve this, the research employed a comprehensive hypothesis testing approach. This included evaluating the direct effects of microfinance mobile services and entrepreneur training on SME performance, as well as investigating potential indirect effects mediated through variables such as mobile savings and credit facilities. By utilizing multiple regression analysis and conducting various diagnostic tests, the study sought to offer a nuanced understanding of how these factors interact and influence each other, thus providing deeper insights into the dynamics affecting SME performance. This section entails the findings of the investigation for both the direct and indirect effects hypotheses tests.

Test of Direct Effects Hypotheses

This study aimed to explore both direct and indirect relationships among constructs related to microfinance mobile services and the moderating effect of entrepreneur training on SME performance. The direct effects of microfinance mobile services and entrepreneur training on

SME performance were tested using multiple regression analysis. The regression results, presented in Table 4.17, indicate that the model explains 38% of the variance in SME performance, suggesting a strong correlation between the variables investigated. According to Field (2013), a correlation coefficient of 0.3 or above is considered strong, and in this study, the R^2 value of 0.376 supports a robust relationship between restructuring strategies and SME performance. The regression outputs obtained from the statistical analysis are presented in Table 4.2:

Table 4.2: Regression Analysis of Microfinance Mobile Services on SMEs Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.613[a]	.376	.364	.26097	1.589

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.357	2	2.179	42.725	.000[b]
Residual	7.591	150	.0510		
Total	11.948	152			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.712	.381		4.774	.000
	Money Transfer/Payment	.456	.128	.394	3.224	.002
	Microfinance Mobile Savings	.285	.114	.358	2.505	.014
	Mobile Credit Facilities	.098	.195	.193	.696	.451

Source: Survey Data (2024)

As illustrated in Table 4.2. the regression parameters showed values of R, R^2, and Adj-R^2 to be 0.613, 0.376, and 0.364 respectively. The Adjusted R-Squared (R^2) value of 0.364 implies that 36.4% of the variation in SME performance can be explained by the constructs of restructuring strategies. This result indicates that while restructuring strategies have a moderate explanatory power over performance, other factors contribute significantly to performance variations. The findings align with the research by Santana et al. (2017) and Scherrer (2010), who found that strategic restructuring positively influences organizational performance over time. However, 63.6% of the performance variation may be attributed to variables outside the scope of this study, underscoring the need for further investigation into additional influencing factors.

The ANOVA table confirms the regression model's appropriateness, with a significant F-value indicating that the model is statistically sound and the data collected is accurate. The significant F-value suggests that the regression model effectively captures the relationship between restructuring strategies and SME performance, validating the model's suitability for the data. The findings also reinforce the theoretical framework proposed by Barney (1991), which posits that internal capabilities developed through strategic actions contribute to competitive advantage and improved performance. This supports the view that restructuring strategies positively influence SME performance. In summary, the multiple regression model demonstrates a significant relationship between the independent variables—money transfer/payment, microfinance mobile savings, and mobile credit facilities—and SME performance. The regression equation summarizing these relationships is as follows:

$Y=1.722 + 0.394MTP + 0.358MS + 0.193MCF + \varepsilon$…….Model 4.1

This model suggests that while money transfer/payment and microfinance mobile savings significantly predict SME performance, mobile credit facilities do not have a substantial direct effect. The findings provide valuable insights into the impact of restructuring strategies on

performance and support the notion that targeted strategies can enhance organizational outcomes.

Effect of Money Transfer/Payment on SME Performance

To evaluate this object the following hypothesis was proposed and tested:

H_{01}: Money Transfer/Payment has no statistical significant effect on financial performance of small and medium enterprises in Trans-zoia, County.

The analysis of the effect of Money Transfer/Payment on SME performance reveals significant findings, as presented in Table 4.17. The coefficient for Money Transfer/Payment is 0.456 with a standardized Beta value of 0.394, indicating a positive and substantial impact on SME performance. The t-value for this coefficient is 3.224, and the p-value is 0.002, which is well below the conventional significance level of 0.05. This suggests that Money Transfer/Payment significantly affects SME performance, providing strong evidence to reject the null hypothesis (H_0: Money Transfer/Payment has no statistical significant effect on financial performance of small and medium enterprises in Trans-zodiac, County).

The decision rule for this variable is based on the p-value. Since the p-value is less than 0.05, we reject the null hypothesis. This statistical significance indicates that Money Transfer/Payment contributes meaningfully to SME performance. The positive coefficient suggests that as the use of Money Transfer/Payment increases, so does the financial performance of SMEs. This finding aligns with the perspective that efficient financial transactions facilitated by Money Transfer/Payment systems can enhance operational efficiency and financial outcomes for SMEs.

Furthermore, the significant effect of Money Transfer/Payment is consistent with existing literature, which emphasizes the importance of financial technology in improving business performance (Klapper & Singer, 2017). The substantial coefficient and low p-value underline the effectiveness of Money Transfer/Payment as a key factor in driving SME success. Therefore, the study concludes that adopting robust Money Transfer/Payment systems can lead to enhanced financial performance, supporting the broader implications of financial inclusion and technological advancement in the SME sector.

Mobile Saving and SME Performance

To evaluate the second objective, the hypothesis was stated in the null form as:

H_{02}: Mobile saving has no statistically significant effect on financial performance of small and medium enterprises in Trans-nzoia, County.

The results of the regression analysis, coefficient for microfinance mobile savings was showed that: ß = .285, t = 2.505, p = .014. According to the decision rule, a p-value less than 0.05 indicates statistical significance. Thus, since the p-value of 0.014 is less than the 0.05 threshold, we reject the null hypothesis (H_{02}) that microfinance mobile savings has no statistically significant effect on SME financial performance in Trans-Nzoia County. This result suggests that microfinance mobile savings positively and significantly influences SME performance, supporting the hypothesis that such financial services contribute meaningfully to the financial outcomes of SMEs.

The coefficient of determination (R^2) value indicates the proportion of variance in SME performance explained by microfinance mobile savings. Although the exact R^2 value is not specified here, the significant t-value and p-value point to a meaningful contribution of microfinance mobile savings to the performance of SMEs. This finding aligns with prior research which highlights the importance of financial services in enhancing SME capabilities and performance (Zhu et al., 2020). The positive coefficient suggests that as microfinance mobile savings increase, SME performance also improves, reflecting the role of financial tools in supporting business growth and stability. These results are consistent with the theoretical perspectives on the impact of financial services on organizational performance. For instance, financial inclusion theories emphasize that access to diverse financial services, including mobile savings, can enhance business efficiency and financial stability (Beck & Demirguc-Kunt, 2008). Therefore, the significant effect of microfinance mobile savings reinforces the notion that financial services are integral to the successful operation and growth of SMEs. This study's findings underscore the value of such financial instruments in improving SME performance and provide empirical support for policies aimed at increasing access to mobile savings solutions.

Effect of Mobile credit facilities on SME performance

To evaluate the third objective, the hypothesis was stated in the null form expressed as:

H_{03}: Mobile credit facilities have no statistically significant effect on financial performance of small and medium enterprises in Trans-nzoia, County.

The analysis of the effect of mobile credit facilities on SME performance was conducted to assess the validity of the third hypothesis. The results of the hypothesis test showed regression parameters ß = .098, t = .696, p = .451, with a standard error of 0.195. According to the decision rule, a p-value greater than 0.05 indicates that the null hypothesis cannot be rejected. Given that the p-value of 0.451 is substantially higher than the 0.05 threshold, the null hypothesis is not rejected. This result indicates that mobile credit facilities do not have a statistically significant effect on the financial performance of SMEs in Trans-Nzoia County. The lack of significance, as reflected by the low t-value and high p-value, suggests that mobile credit facilities do not meaningfully influence SME performance in this context.

The coefficient of determination (R^2) in the model could provide insights into the proportion of variance in SME performance explained by mobile credit facilities. However, based on the regression parameters provided, it appears that mobile credit facilities do not account for a substantial part of the variance in SME performance. This finding is in contrast to some prior studies that highlight the positive impact of credit facilities on business performance (Kumar & Sunder, 2019). The results suggest that while mobile credit facilities might be a component of the broader financial services ecosystem, they alone do not significantly drive financial outcomes for SMEs in Trans-Nzoia County. This underscores the need for a comprehensive approach in evaluating the effectiveness of financial services on SME performance, potentially integrating other factors and financial tools.

Moderating Effect of Entrepreneur Training

The fourth objective of this study was to assess the moderating effect of Entrepreneur Training on the relationship between microfinance mobile services and the financial performance of SMEs in Trans-Nzoia County, Kenya. The hypothesis was stated as follows: The hypothesis was stated as:

H_{04}: Entrepreneur Training has no moderating effect on the relationship between microfinance mobile services and financial performance of SMEs in Trans-nzoia County, Kenya.

To test the moderating effect, Step 1: The regression of microfinance mobile services on SME performance was performed and the results are presented in Table 4.18. The model summary shows that the R^2 value is 0.301, indicating that 30.1% of the variance in SME performance can be explained by microfinance mobile services. The F-value is 69.192 with a significance level of 0.000, confirming that the relationship between microfinance mobile services and SME performance is statistically significant. The coefficient for microfinance mobile services is 0.536, with a t-value of 6.861 and a p-value of 0.000, indicating a strong and significant positive effect on SME performance.

Step 1: Regressing Composite of Microfinance Mobile Services on SMEs Performance

Table 4.3: Regression of Microfinance Mobile Services on SMEs Performance

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.549[a]	.301	.294	.27367	1.579

Anova					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	3.681	1	3.681	69.192	.000[b]
Residual	8.089	152	.0532		
Total	11.660	153			

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.944	.360		5.404	.000
Microfinance Mobile Services	.536	.080	.549	6.861	.000

Source: Survey data (2024)

The table 4.3 shows the findings on the relationship between the independent, moderating and dependent variables.

Step 2: The second step involved regressing the moderating variable, Entrepreneur Training, on SME performance to evaluate its direct effect. The results indicated a significant positive effect of Entrepreneur Training on SME performance, though specific values were not provided here. This step is crucial in understanding whether Entrepreneur Training itself contributes to changes in SME performance independently of the microfinance mobile services.

Table 4.4: Regression of Microfinance Mobile Services, Entrepreneur Training and SMEs Performance

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.754[a]	.569	.519	.20111	1.658

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	7.242	2	3.621	89.530	.000[b]
Residual	4.328	152	.040		
Total	11.569	153			

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.218	.275		4.431	.000
Enterpreneur Trainning	.768	.080	.821	9.603	.000
Microfinance mobile services	.042	.085	.042	.498	.619

Source: Survey data (2024)

The results presented in Table 4.4 reveal a substantial positive effect of Entrepreneur Training on SME performance. The model summary indicates an R^2 value of 0.569, meaning that 56.9% of the variation in SME performance can be explained by Entrepreneur Training and microfinance mobile services combined. This high R^2 value suggests a strong relationship between the variables, highlighting the significant role Entrepreneur Training plays in enhancing SME performance. The regression coefficients further substantiate the importance of Entrepreneur Training. The coefficient for Entrepreneur Training is 0.768 with a t-value of 9.603 and a p-value of 0.000, indicating a highly significant positive impact on SME performance. This result signifies that for each unit increase in Entrepreneur Training, SME performance improves substantially, reinforcing the value of such training programs in driving business success. In contrast, the coefficient for microfinance mobile services is relatively low (0.042) and statistically insignificant ($p = 0.619$), suggesting that, within this model, microfinance mobile services do not have a significant direct effect on SME performance when Entrepreneur Training is accounted for. Thus, the analysis highlights Entrepreneur Training as a crucial factor contributing to SME performance, providing valuable insights into the effectiveness of training programs in the business context.

$Y = 1.218 - 0.042\ MMS + 0.821ETP + \varepsilon$…….Model 4.2

Step 3: In the final step, the interaction term between microfinance mobile services and Entrepreneur Training was added to the regression model. This step aimed to determine if Entrepreneur Training moderates the relationship between microfinance mobile services and SME performance. Although the detailed results for this step are not provided, the interaction term's significance would be key to determining the moderating effect. A significant interaction term would imply that the impact of microfinance mobile services on SME performance is influenced by the level of Entrepreneur Training. The table 4.19 shows the findings on the moderated relationship with the presence of the interactive term.

Table 4.5: Regression for Moderated Relationship with Interactive Term

Model Summary					
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1	.819[a]	.670	.621	.18979	1.706

ANOVA

Model	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Regression	7.751	3	2.584	101.732	.000[b]
Residual	3.818	150	.0254		
Total	11.569	153			

Coefficients

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	2.049	.341		6.013	.000
Enterpreneur Trainning	.597	.088	.643	6.808	.000
Microfinance Mobile Services	.337	.112	.338	3.006	.003
Interactive Term	.063	.017	.490	3.761	.000

Source: Survey data (2024)

As presented in Table 4.5, the model summary shows an adjusted R^2 value of 0.621, indicating that 62.1% of the variance in SME performance is explained by the combined effect of microfinance mobile services, Entrepreneur Training, and their interaction. This substantial R^2 value underscores the model's robust explanatory power and the significant role that Entrepreneur Training plays in moderating the relationship between microfinance mobile services and SME performance. The inclusion of the interactive term in the regression analysis reveals notable findings. The coefficient for the interactive term is 0.063 with a t-value of 3.761 and a p-value of 0.000, indicating a statistically significant moderating effect. This suggests that the impact of microfinance mobile services on SME performance is significantly enhanced by the presence of Entrepreneur Training. Specifically, as Entrepreneur Training increases, the positive effect of microfinance mobile services on SME performance also intensifies. The coefficients for microfinance mobile services and Entrepreneur Training are 0.337 and 0.597, respectively, both significant at $p < 0.05$. These results demonstrate that while both variables individually contribute to SME performance, their combined effect through Entrepreneur Training amplifies the overall performance outcomes. Thus, the analysis confirms that Entrepreneur Training not only has a direct positive effect on SME performance but also strengthens the positive influence of microfinance mobile services on performance, highlighting its crucial role as a moderating variable:

Y =2.049+0.338 MMS+ 0.643 ETP + 0.490 MMS*ETP+ ε……Model 4.3

The summary of behaviour of parameters in the regression models across the three steps used for determining moderation is presented in Table 4.24:

Table 4.6 : Summary of Moderation Relationship

Parameter	Model 1	Model 2	Model 3	Change (2-1)	Conclusion
R^2	0.301	0.626	0.670	**0.044**	Reject H_{04} there is an evidence that Enterpreneur Trainning moderates the relationship between microfinance mobile services and SME performance
Adj R^2	0.294	0.619	0.661	**0.042**	
βMMS	0.549	0.42	0.337	**0.083**	
βETP		0.767	0.597	**0.017**	
βInt. term			0.063	**0.063**	
P-value	0.000	0.000	0.000	**0.000**	

Source: Survey data (2024)

The summary of the parameters across the three regression models used to determine the moderating effect of Entrepreneur Training is presented in Table 4.6. The regression analysis demonstrates a progressive increase in the explanatory power of the models. Specifically, the R^2 value increased from 0.301 in Model 1 to 0.626 in Model 2, and further to 0.670 in Model 3, reflecting a notable improvement in the model's ability to explain variance in SME performance as additional variables and the interaction term were incorporated. This 0.044 change from Model 2 to Model 3 supports the rejection of the null hypothesis (H04), indicating that Entrepreneur Training significantly moderates the relationship between microfinance mobile services and SME performance.

The adjusted R^2 values followed a similar upward trend, rising from 0.294 in Model 1 to 0.619 in Model 2 and 0.661 in Model 3. This consistent increase further affirms the robustness of the moderation effect. The coefficient for microfinance mobile services ($\beta = 0.337$) decreased from Model 1 to Model 3, while the coefficient for Entrepreneur Training ($\beta = 0.597$) decreased slightly, with the interactive term ($\beta = 0.063$) showing a significant effect (p-value = 0.000). These results collectively indicate that Entrepreneur Training enhances the positive relationship between microfinance mobile services and SME performance, validating its role as a significant moderator.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This research made the following conclusions based on the findings from each of the four objectives: First, the study concluded that mobile money transfer and payment services had a significant positive effect on the financial performance of SMEs in Trans-Nzoia County. The adoption of mobile money transfer technology by SMEs enabled faster, more secure, and cost-effective transactions, contributing to better financial outcomes. SMEs that embrace mobile money platforms for their transactions enhanced their operational efficiency, reduced costs, and ultimately experienced improved profitability. Therefore, promoting mobile payment services can be an effective strategy for improving the financial performance of SMEs. Second, the study concluded that mobile savings services significantly improved SME financial performance. SMEs that used mobile savings platforms benefited from enhanced financial discipline, better liquidity management, and increased capital reserves, which helped them sustain and grow their businesses. Mobile savings services provided an accessible, secure, and

convenient means for SMEs to build savings, leading to improved financial stability and performance.

Third, the study concluded that mobile credit facilities, while available to SMEs, did not significantly impact their financial performance. This suggests that SMEs may face challenges in accessing or effectively utilizing mobile credit due to factors such as high interest rates, limited loan amounts, or unfavorable terms. It indicated that while mobile credit is an innovative financial service, there is a need for further refinement of these products to better meet the needs of SMEs and enhance their financial performance.Fourth, the study concluded that Entrepreneur Training had a significant moderating effect on the relationship between microfinance mobile services and SME performance. Entrepreneurial skills, particularly in financial management and decision-making, enhanced the capacity of SMEs to leverage mobile financial services effectively. As a result, training programs that built entrepreneurial competencies maximized the benefits of mobile services, thereby contributing to better financial outcomes for SMEs. This finding underscored the importance of capacity building in entrepreneurship as a critical factor for the success of SMEs in the utilization of mobile financial services.

Recommendation for the Study

Recommendations for Policy and Practice

In view of the research results and conclusions, the study made the following recommendations: First, policy-makers and financial institutions should enhance the availability and accessibility of mobile savings and credit services specifically tailored for SMEs. The study revealed that mobile savings had a statistically significant positive effect on SME financial performance, indicating the importance of savings solutions in business growth. Mobile financial service providers should collaborate with SME development agencies to develop targeted products that address the unique financial needs of small businesses. Second, entrepreneurship training programs should be integrated into SME support structures to improve the capacity of business owners. The study found that Entrepreneur Training significantly moderates the relationship between mobile financial services and SME performance. This suggests that training in financial management, digital literacy, and business skills empowers entrepreneurs to better utilize mobile financial tools, leading to improved performance. Thus, it is recommended that both public and private sectors invest in expanding and promoting comprehensive entrepreneurship training for SMEs.

Third, regulatory bodies should create favorable conditions for mobile credit services. While the study showed a less significant effect of mobile credit on SME performance, addressing barriers such as high interest rates, collateral requirements, and regulatory constraints could improve the impact of mobile credit facilities. Policy reforms should focus on creating a supportive legal framework for mobile credit services, ensuring that they are affordable, secure, and accessible to small businesses. Lastly, the government and development partners should encourage collaborations between mobile financial service providers and educational institutions to create specialized programs aimed at SME owners. This would allow for the

continuous improvement of financial literacy and entrepreneurial capabilities, which the study showed as crucial in enhancing the overall performance of SMEs.

Recommendations for Future Research

The study investigated the effect of mobile financial services on the financial performance of SMEs, with Entrepreneur Training as a moderating variable. Based on its findings and limitations, the study recommends several avenues for future research. First, this study can be replicated in future research efforts using the same set of variables, but with an expanded geographical scope or across different sectors. The current research focused on SMEs in Trans-Nzoia County, Kenya; thus, conducting similar studies in other regions or industries may provide comparative insights and enhance the generalizability of the findings.

Second, in terms of conceptualization, the study operationalized mobile financial services through three key dimensions: mobile savings, mobile credit facilities, and money transfers. Future studies could explore additional components of mobile financial services, such as mobile insurance or mobile investment platforms, to provide a more comprehensive understanding of how these services affect SME performance. Equally, the study interrogated the role of Entrepreneur Training as a moderating variable. Future research could examine other potential moderating or mediating variables, such as competitive advantage, innovation capacity, or financial literacy. These factors may offer deeper insights into how external and internal capabilities influence the relationship between mobile financial services and SME performance.

Finally, longitudinal studies could be conducted to track the long-term impact of mobile financial services on SMEs. This would offer a dynamic perspective on how these services contribute to business growth and sustainability over time.

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