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Exploring Financial Risks in Relation to Performance of MPESA Agents in Rural Areas, Kenya

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Abstract

The growth of mobile banking services, specifically Mpesa, has transformed financial transactions in Kenya, particularly in marginalized and rural regions. Ever since Safaricom introduced Mpesa in 2007, it has enabled various financial transactions like money transfers, bill payments, savings, and loans, becoming vital to Kenya's financial infrastructure. In rural areas, Mpesa shops are at risk of facing financial challenges which can impact their operations and long-term success. This research investigates how liquidity, credit, and operational risks affect the financial performance of Mpesa outlets in rural Kenya. The mismatch between cash coming in and going out results in liquidity risks, which can cause service interruptions and unhappy customers. Credit risks, resulting from borrowers failing to repay loans on time or defaulting, put pressure on cash flow and the stability of finances. Operational risks like technical failures, fraud, and regulatory non-compliance pose additional threats to the functionality and customer trust of the shops. By thoroughly analyzing pertinent literature and empirical data, this research investigates the way in which these risks interplay and impact the economic sustainability of Mpesa shops. The results are intended to guide improved risk management methods and policy suggestions to strengthen the resilience and sustainability of Mpesa agents, guaranteeing ongoing availability of crucial financial services in rural Kenya.

Keywords: Mpesa, mobile money, rural Kenya, financial performance, risk management, financial sustainability

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1. Introduction

In recent years, the proliferation of mobile money services has significantly altered the financial landscape in Kenya. Notable among them is Mpesa, which has been one of the primary drivers of changing the way people, particularly in underrepresented areas, conduct financial

transactions. For example, in rural areas, people depend on Mpesa shops as critical nodes in financial transactions. Mpesa was launched by Safaricom in 2007 and has grown significantly to be used in transferring money from one person to another, paying bills, savings, and loans (SAFARICOM, n.d.). It has gained traction in Kenya's financial system, particularly in underserved areas with

limited access to traditional commercial banks.

Despite their popularity and appeal, many of these shops in rural areas are constantly facing various financial risks that compromise their performance. Their risks include liquidity, credit, and operational risks, which interact in complex ways within the local economic context. Besides, the financial risks that relate to small business ventures always operating in emerging environments have been a recent subject of a lot of interest by both scholars and practitioners alike. The literature in the area is quite useful in gleaning inputs about the nature of financial risks, their effects on business performance, and strategies of mitigation.

One of the major components of financial risk is liquidity risk, which explains whether firms can pay short-term obligations without the cost being too high (Masavu, 2022). In relation to M-PESA outlets, therefore, they are likely to show signs of liquidity risk arising from the mismatch between inflows and outflows of cash, which disrupt customer service provisions and customer dissatisfaction (International Finance Corporation, World Bank Group, 2020). Studies have shown that poor management of liquidity could bring with it significant effects, retarding the development and growth of small businesses (Diniz et al., 2011; Masavu, 2022).

Another essential dimension linked to the financial risks being faced by M-Pesa shops pertains to the credit risk. It refers to the possibility of loss due to customers or agents not meeting financial commitments. Risk taking theory suggests a number of tactics, such as searching out and acquiring more and more market data to reduce risk in financial decision making (Patrick et al., 2024). This is most common due to default on loans and delayed repayment of them, which has an effect on cash flow and hence financial stability for Mpesa agents. Informal borrowing in rural areas makes this even tougher. This is because formal credit has minimal access there, which means they rely more on informal lending. Without effective credit risk management, the shops are likely to suffer under intense financial pressure and may be unable to operate in an efficient manner, wishing that their service offerings could survive.

The other independent variable is operational risk, which simply means considering risk concerning the process of operation, the systems of the organization, and human errors that affect the operation. The main sources of operational risk in Mpesa shops range from technical hitches to fraud, or, better put, non-compliance with the required nature of regulations. Studies indicate that good operational risk management guarantees the organization's or business' safety and continuity (Van Hove & Dubus, 2019).

As demonstrated with the help of the discussion on liquidity, credit, and operational risks, it is important to explore the combined effect of these risks on the financial performance of Mpesa shops in rural areas. To do that, and based on the evidence revealed by the existing literature in the field and relevant theories on the question of risk management, the study will have implications for better ways of improving Mpesa operators' operations and recommendations for policymakers and other parties to

improve the business' longevity and sustainability in the local context.

1.2 Statement of the Problem

Despite the critical role Mpesa shops play in the financial ecosystem of rural areas, these enterprises face significant financial risks that threaten their performance and sustainability. More often than not, liquidity risk through the mismatch between cash flows of receivables and payments, credit risk arising from defaults and repayment delays, and operational risks due to malfunctioning systems or non-compliance make it impossible. Risks of this nature are associated with disruptions in operations, customer dissatisfaction, and loss stability in financial terms. Though literature has documented these risks, a more extensive analysis of their combined effects on Mpesa shops' financial performance is imperative. The focus of this study is, therefore, to address the gap and analyze how these risks affect the functions of Mpesa shops in rural areas with a view to laying down key learning points that would allow for improved risk management practices as well as act as policy pointers towards ensuring greater resilience and sustainability on the part of these important financial service providers.

2. Review of literature

2.1 Introduction

This chapter provides relevant knowledge for the study, which takes an expansive view of theoretical and empirical findings and provides a conceptual framework pertinent to understanding financial risks and their influence on the financial performance of M-Pesa shops. The theoretical review will examine the fundamental theories underpinning financial risk management in realizing liquidity, credit, and operational risks. The conceptual framework shows the linkage between these kinds of financial risks and the financial performance metrics of the Mpesa shops. The empirical review covers past research, emphasizing the findings and methodologies that inform this study. Critiques of existing literature articulate gaps and limitations and subsequently lead to a conclusion, which synthesizes the reviewed information and identifies the research gaps this study is attempting to fill.

2.2 Theoretical Review

This section provides an explanation of three fundamental theories forming the basis for the analysis of financial risks and their impact on the economic performance of Mpesa shops in rural areas: the liquidity preference theory, the credit risk theory, and the operational risk theory. Each of these theories throws a unique light on the financial risk facing these shops and how it is to be mitigated.

Liquidity Preference Theory

According to Keynes in 1936, the liquidity preference theory posits that people hold wealth in forms easily convertible to cash because of several uncertainties and other opportunity costs of different investments (Bakala, 2024; Bibow, 2013). This theory is essential in understanding the liquidity risks that Mpesa shops face on

an everyday basis, where they have to maintain adequate cash flow that meets the transaction demand daily. Inadequate liquidity may result in customers being dissatisfied and consequently losing the business. According to Keynes, the demand for liquidity is motivated by three main signatures: the transaction motive that calls for cash in the transacting of day-to-day activities; the precautionary motive that calls for money in catering to unanticipated moments; and the speculative motive that calls for cash in maneuvering future investment opportunities (Keynes, 1936; Pilbeam, 2018). Mpesa shops need to balance the above motives toward operational stability. Effective liquidity management is, therefore, bound to maintain the shop's smoothness in operations and customers' sustainable trust and satisfaction.

Credit Risk Theory

Credit Risk Theory is based on the understanding that there is an inherent element of risk for the lender that the borrower of funds may default on a loan. Different models come under this theory, like credit metrics and the Merton model used for studying the probability of default on a loan and probable losses on any credit exposure (Merton, 1974). For Mpesa shops, credit risk is particularly pertinent due to their reliance on informal credit systems, especially in rural areas. The inability to make payments on time by customers negatively affects the cash flow and financial health of such shops (Duffie & Singleton, 2012). For instance, the Merton model employs the structural approach that, given a firm's structure of capital and the asset's level of volatility, a firm's equity is considered a call option on its assets to give a platform through which to evaluate default risk (Merton, 1974; Hull, 2018). Utility functions offer a numerical structure for assessing personal preferences and tolerance for risk, assisting in the creation of policies that harmonize customer requirements (Odhiambo & Murori, 2024). Therefore, such models of credit risk understanding and management will help Mpesa shops reduce losses and enhance their financial performance.

Operational Risk Theory

Operational Risk Theory is related to the risks caused by failed internal processes, people, and systems or by external events. The Basel II framework categorizes them and emphasizes the importance of good practice in risk management (Powell, 2004). Mpesa shops are susceptible to operational risks such as technical failures, fraud, and non-compliance with regulations, which can severely disrupt their services. Van Hove and Dubus (2019) posit that operational risk management is realized through source identification, internal control implementation, and a risk-informed culture. Theory shows that Mpesa shops must implement comprehensive risk management strategies to ensure business continuity and service reliability. Additionally, technological advancements and cybersecurity measures are crucial in mitigating operational risks and maintaining the trust of customers.

These theories illustrate the multidimensional financial risks that exist within M-Pesa agent shops. The liquidity preference theory speaks of this: maintaining adequate liquidity. The theory of credit risk speaks of managing lending risk. Operational risk theory, on the other hand, points to the requirement to institute robust internal

control and risk management. These theories, through their interlink, establish the standard framework of financial risk assessment and mitigation, which impacts the performance and sustainability of M-Pesa shops in rural areas.

2.3 Conceptual framework

The research conducted an in-depth analysis of the existing body of knowledge guided by various factors depicted in Figure 1, which was identified as the conceptual framework. This examination of literature aimed to provide a comprehensive understanding of the subject matter under investigation.

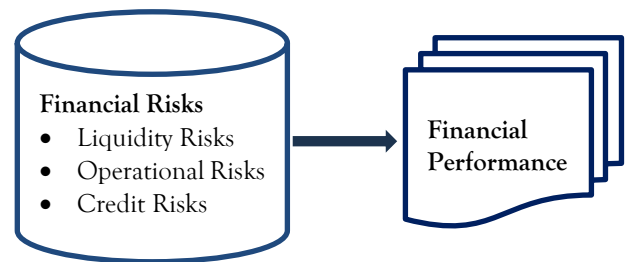


Fig 1: Conceptual framework

Liquidity Risks

Liquidity risk arises from an inability to meet its short-term obligations because of inadequately liquid assets. For Mpesa shops, this is a risk due to mismatched cash inflows and outflows. Masavu (2022) goes on to say that proper liquidity management also guarantees the sustainable operation of small business enterprises, like shops that operate with M-pesa, as the lack of enough liquidity may harm the shops' operations regarding service provision, which may cause customer dissatisfaction. The shops, particularly in rural areas, are often deprived of liquidity due to the variability in the daily market for cash, coupled with over-reliance on money as the means of transaction.

Liquidity risk management in Mpesa shops is essential for ensuring that a trade-off exists between holding enough cash to meet the customers' demands and holding excessive idle cash funds that would have otherwise been reinvested elsewhere (International Finance Corporation, 2020). Furthermore, Diniz et al (2011) and IFC (2020) have indicated that poor liquidity management may translate into operational inefficiency, thus leading to eventual financial distress. Moreso, in rural settings, the limited access to banking facilities increases the liquidity risk; thus, it is essential for these shops to adopt effective cash flow management practices.

Operational Risks

Operational risk can be defined as the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events. Mpesa shops rely heavily on technology and human factors; hence, this kind of risk is the most applicable. The Basel Committee on Banking Supervision (2006) further classifies operational risks and further emphasizes the urgency of general risk management. Mpesa shops in rural areas are exposed to operational risks like technical failures, rogue employees, fraud, and non-compliance with regulatory requirements.

Wachira & Njuguna (2023) verify that technical problems and system downtime are some of the critical barriers to the effective running of M-Pesa products and services. This will, therefore, cause financial losses and damage the customers' trust. Fraud is yet another critical operational risk (Omar & Koori, 2022). A practical approach to operational risk management involves establishing robust internal controls, enhancing security protocols, and ensuring compliance with regulatory standards.

Credit Risks

Credit risk is the risk of making a loss out of a borrower's failure to fulfill their repayment obligation or contractual obligation. Credit risk is notable among Mpesa shops when they give customers post-paid services or even when they acquire credit to increase the number of customers for their service. Merton (1974) and Duffie and Singleton (2012) further justify the strategic importance of credit risk assessment in ensuring the stability of operations. In rural areas, access to formal credit mechanisms is limited; hence, Mpesa shops have to rely on informal lending. This exposes them to the risks of defaults and delays in payment.

Ngotho (2020) added that high default rates among borrowers adversely affect financial performance. Elizabeth (2020) have observed that the credit system in rural areas is informal. Thus, credit risk is significant. The unavailability and inefficacy of credit risk management may push Mpesa shops to the end of financial vulnerability, where, operationally, it ceases to exist. This can help prevent such risks by implementing solid credit assessment procedures with formal financial services.

Financial Performance

Financial performance is a rather general measure of the general economic well-being of a firm over a particular period that shows the ability of the firm to generate revenue and manage its costs effectively. Economic performance in the Mpesa shop business will be measured in terms of profitability, liquidity, and operational efficiency.

The financial performance of M-PESA shops in rural settings can be improved through efficient management of cash flows, maintenance of operational efficiency, and optimal use of their technological infrastructure., which in this case is constrained by such factors as the size of the market, the volume of transactions, and the cost of operation, which is relatively higher due to infrastructural challenges. Research by Millan et al (2023) opines that in such settings as these, enhancing financial performance demands the development of strategies that focus on advancing service delivery, customer engagement, and operation management.

2.4 Empirical Review

The need for an empirical literature review is to provide details on the impacts of financial risks on the economic performance of Mpesa shops, especially in rural settings. This part shall critically review recent studies on liquidity risk, credit risk, and operational risk regarding the information and findings thereof derived from mobile money services and small business operations in similar environments. There's the risk of liquidity; the risk of inflows and outflows that are otherwise mismatched can bring small financial operations, like those observed in M-Pesa shops, to a halt. IFC (2020) adds that liquidity management is what will determine the sustainability of mobile money agents in Kenya. The findings

from IFC (2020) concretely showed that without adequate liquidity, service delivery may be delayed, in the process irritating the customer. This finding is supported by the International Finance Corporation's (IFC) World Bank Group (2020), which alleges that mobile money agents from underserved areas are constrained by liquidity, which affects their level of service provision. For instance, Turgut (2022) study on the financial performance of SMEs in Kenya pointed out that liquidity management practices are highly and positively correlated with business performance. This is supported by a study whose findings were based on a sample of SMEs, of which some were mobile money agents, and the same study established that practices for the management of liquidity are positively related to and report better profitability and satisfaction of the customers since they reduce the risks of liquidity. These support the importance of maintaining adequate cash reserves and efficient cash flow management systems in reducing the risk of any liquidity crisis.

However, emanating from the possibility of default by the customers or agents, credit risk is a significant impediment to the financial soundness of Mpesa shops. Ngotho (2020) conducted an in-depth study on the influence of the credit risk of mobile money agents on economic performance in rural Kenya. "The high default rates of loans tend to significantly negatively affect agents' cash flows and may even lead to financial instability or the closure of business." The study recommended that the only way the risk could be mitigated included proper enforcement of the credit assessment procedures, including the use of credit-scoring systems. Additionally, in a recent study, Elizabeth (2020) discussed the challenges that key Mpesa agents faced in managing the credit risk in rural areas. They established that rare access to formal credit and informal lending practices worsen the problem of credit risk. The study concluded that a combination of formal financial institutions and the accessibility of mobile money services would offer a better framework for managing credit and ultimately lower default rates. This will help Mpesa shops utilize more advanced tools for risk assessment and better financial resources.

More importantly, however, the Mpesa shops face several operational risks, such as technical failures, fraud, and failure to meet regulatory standards. For instance, according to a research study conducted by Kiarie and Wambugu (2023), it came out that operational inefficiencies and system downtimes were critical challenges in ensuring that the Mpesa services work to perfection. According to the study, all the agents who took part in the survey, which was conducted in rural Kenya, said that they continue to experience service disorganization and a continuous loss of trust and loyalty from their customers. Fraud is a significant operational risk. Before the present study, Omar and Koori (2022) researched the impact of fraud on the performance of mobile money agents. They found out that there is a possibility of significant risks that result in significant fiscal losses, both as a result of internal fraud and external fraud. On this basis, Omar and Koori (2022) recommended that increased security protocols be put in place and a decrease in the risk profile be made. This can be done through regular staff training. In addition, regulatory compliance is bound to have a bearing on the smooth running of Mpesa shops. The case of Mwaiwa et al (2022) notes that lack of adherence to financial regulations has resulted in financial regulators imposing penalties and

legal suits, which indicates negative financial performance expected by mobile money agents. This, therefore, suggested that compliance with rules would be mitigated to an acceptable level regarding associated risks through the training and ongoing training of Mpesa agents.

This is crucial in developing a comprehensive risk management strategy that appreciates the combined effects of liquidity, credit, and operational risks on the financial performance of Mpesa shops. In the study by IFC (2020), the analysis focused on how such risks interrelate and cumulatively affect the financial performance of Mpesa shops in rural Kenya. The research followed a mixed-methods design that embedded quantitative information on financial records with qualitative findings from Mpesa agent interviews. The paper shows that liquidity, credit, and operational risks are usually interdependent, and most of the time, they even reinforce one another. For example, liquidity problems can raise credit risks because the households that Mpesa agents will loan to will eventually delay repaying the loan and raise the likelihood of a loan failure. In addition, operational risks arise when technical failures present themselves, thus disrupting cash flows and the attendant complexities of managing liquidity. Summing up, Musembi (2024) say to enhance the financial performance. Subsequently, for the sustainability of Mpesa shops, a comprehensive approach that manages all three risk typologies at the same time is required.

It is also helpful to highlight that comparative studies can help understand the differences and outcomes of risk management in similar contexts for different approaches. A notable example is the comparative study on the Kenyan and Tanzanian mobile money services undertaken by Mbithi and Mwikya in 2021, where some differences in their risk management practices and outcomes were highlighted. Accordingly, the revealed specifics were that Mpesa agents in Kenya had greater liquidity and credit risks compared to agents in Tanzania, where formal financial services had been more accessible and the regulatory environment consequently more protective. For instance, in a case study of mobile money services in Uganda and Kenya conducted by Paolo and Roberts (2022), it was found that Ugandan agents got more training and attention to support from telecom operators that mitigated the risks originating from operations. This suggests that Kenyan Mpesa shops can potentially improve their performance if support structures and training programs adopt them.

These studies, therefore, have very acute policy implications. These results urgently call for creating an enabling environment supportive of the growth and sustainability of M-Pesa shops, which includes improvement of access to formal credit, improvement of regulatory frameworks, and training and support of mobile money agents. This was also corroborated by Gopane (2021) in their study, which pointed to the role of government and regulatory bodies in cushioning through policies the financial risks associated with mobile money agents. Consequently, it contributed to the enhancement and preservation of access to credit and a reduction in liquidity risks, among others, with a policy framework that integrated mobile money services with formal financial firms and entities. It was also suggested that the regulatory framework provides the security and compliance important for reducing operational risks.

This, in turn, indicates that the financial risks that Mpesa

shops face are multi-dimensional and sizeable in their consequences for economic performance. Liquidity risk, credit risk, and operational risk have their own unique sets of issues that require targeted risk management safeguards. Liquidity management must be effective in maintaining operational liquidity and customer satisfaction. Credit risk must be mitigated by improving the efficacy of mechanisms for credit assessment and the formalization of financial services. Tackling operational risks involves enhancements in technical infrastructure, security protocols, and compliance. It is only in a coherent way where all these risks interlink that the financial performance and sustainability of the Mpesa shops in rural areas will be achieved. Future studies should further investigate innovative risk management practices and how they are implemented in these rural contexts to offer insights and recommendations to policymakers and practitioners.

4. Discussion

Much literature exists regarding the financial risks facing Mpesa shops in rural areas, primarily based in Kenya, which ideally forms a solid point from which to understand the profoundly layered challenges these microenterprises face. While being critically appraised, various gaps and limitations emerge. First, while most of the research, such as IFC (2020) and Ngotho (2020), focused mainly on individual risk factors, including liquidity and credit risk, they did not fully address the compounded impact of these risks. This segmented approach would fail to accurately represent the holistic risk environment in which Mpesa shops operate, which would possibly be interrelated and cumulative, with the risks correlating in complex ways. A multi-domain analysis that considers the interaction of different types of risk would provide a much more rounded and realistic view of the challenges these businesses face.

While such empirical studies as those by Elizabeth (2020) and Omar and Koori. (2022) provide some crucial insights into the operational risks and fraud issues faced by agents, there is an underrepresentation of longitudinal studies that track the impact of such risks over time. Most studies refer to cross-sectional data, which can give a snapshot of the current status but cannot look into the temporal dynamics and long-term trends. This consequently limits the capacity of research to assess how risks change and how Mpesa shops adjust their risk management strategies in the long run. Only a longitudinal study, therefore, can come up with some patterns and, most importantly, in-depth insights into the survival of these businesses under various economic conditions.

Third, the literature in this area indicates that risk mitigation can usually be attributed to regulatory mechanisms and access to formal credit, such as the contributions of Mwaiwa et al (2022) and Gopane (2021). However, not much study has been conducted to provide an analysis of what regulatory mechanisms and what kind of financial products could be most effective. Generic prescriptions for improved regulatory regimes and expanded credit access remain too abstract and generalized to provide meaningful directions for implementation. Further research is required into contextualized solutions that take account of the peculiar socio-economic and infrastructural conditions of rural settings. This would

include customizing new financial products that are suitable for the respective informal sectors and adapting the regulations to respond to the unique circumstances of the Mpesa agents.

Further, comparative studies by Mbithi and Mwikya (2021) and Paelo and Roberts (2022) provide benchmarks against which any fundamental differences in actual risk management practices among countries can be assessed. These studies often miss the cultural, socio-economic, and technological variances that affect the effectiveness of such practices when transplanted to different contexts. Its results are, therefore, generalized from one region or country to another, ignoring these contextual differences. Future research needs to adopt more nuanced approaches to comparisons that evaluate the adaptability and scalability of successful models in different rural settings. This has to involve participatory research methods that include local stakeholders in finding a solution that is culture- and context-sensitive.

5. Conclusions

The financial risks faced by Mpesa shops in rural Kenya are multifaceted and pose significant challenges to their financial performance and sustainability. Liquidity risk emerges as a critical issue due to the often-unpredictable cash inflows and outflows, which can disrupt the daily operations and lead to customer dissatisfaction when services are unavailable. This study found that many rural Mpesa shops struggle to maintain adequate liquidity, a situation exacerbated by the limited access to formal banking services that could provide necessary financial support.

Credit risk is another substantial concern, as Mpesa shops frequently extend credit to their customers, relying on trust and informal agreements. The prevalence of loan defaults and delayed repayments undermines the financial stability of these businesses. Without robust credit assessment procedures, these shops are left vulnerable to significant financial losses, which in turn affect their ability to operate effectively.

Operational risk, encompassing technical failures, fraud, and non-compliance with regulations, further complicates the business environment for Mpesa shops. Technical failures, such as network outages and system downtimes, disrupt service provision and erode customer trust. Fraud, both internal and external, poses a significant threat, with instances of agents engaging in fraudulent activities or being targeted by cybercriminals. Regulatory non-compliance also presents challenges, particularly given the evolving legal landscape surrounding mobile money services.

The findings suggest that comprehensive risk management strategies are essential for mitigating these risks. Effective liquidity management, which could include better cash handling practices and access to emergency

credit lines, is crucial. Additionally, implementing robust credit risk assessment procedures, such as verifying the creditworthiness of customers before extending credit, can help reduce the incidence of loan defaults. Strengthening operational controls, including enhanced cybersecurity measures and regular compliance training, is also vital in minimizing operational risks.

This study underscores the significant financial risks that Mpesa shops in rural Kenya face and their profound impact on these businesses' financial performance and sustainability. Addressing liquidity risk through improved cash management practices and better access to formal financial services is critical. Mitigating credit risk requires robust credit assessment procedures and a deeper understanding of customer behavior. Operational risk management necessitates stronger technological safeguards and adherence to regulatory requirements.

To ensure the long-term sustainability of Mpesa shops in rural Kenya, a multi-faceted approach to risk management is required. This involves not only the efforts of individual business owners but also the support of policymakers, financial institutions, and technology providers. By creating a supportive regulatory and financial environment, stakeholders can help these vital businesses thrive, ultimately enhancing financial inclusion and economic development in rural Kenya.

Future research should delve into longitudinal studies to track how financial risks evolve over time and how Mpesa shops adapt their risk management strategies in response to changing economic and environmental conditions. Investigating context-specific regulatory mechanisms and financial products tailored to the unique challenges faced by rural Mpesa shops can provide valuable insights into effective support strategies. Comparative analysis of risk management practices across different rural settings, considering cultural, socio-economic, and technological differences, can reveal adaptable and scalable models. Additionally, exploring the role of technological innovations, such as enhanced cybersecurity measures and innovative financial technologies, in mitigating operational risks and improving efficiency, is crucial.

Examining the impact of training and support programs for Mpesa agents on their risk management practices and overall business performance can highlight the benefits of practical, context-sensitive training modules. Furthermore, studying the integration of Mpesa services with formal financial institutions to improve credit access and financial stability offers another avenue for enhancing the resilience of these businesses. Finally, investigating the relationship between risk management practices and customer satisfaction can provide insights into how effective risk mitigation strategies can enhance customer trust and loyalty in Mpesa services. This can lead to a more robust and sustainable mobile money ecosystem in rural Kenya.

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The authors declare that they are not aware of any competing financial interests or personal relationships that may have influenced the work described in this document.

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Conflict of Interest

The authors had no financial or personal relationship(s) that may have inappropriately influenced them in writing this article. The authors declare no conflict of interest.

References

- Bakala, T. A. (2024). The Validity of Keynes' Preference for Liquidity Principle in the Endogenous Money Supply Thesis among Post-Keynesians. *iBusiness*, 16(01), 1-23.
- Basel Committee on Banking Supervision. (2006). *Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework*.
- Bibow, J. (2013). *Keynes on monetary policy, finance and uncertainty: Liquidity preference theory and the global financial crisis*. Routledge.
- Blumenstock, J. E., Eagle, N., & Fafchamps, M. (2016). Airtime transfers and mobile communications: Evidence in the aftermath of natural disasters. *Journal of Development Economics*, 120, 157-181.
- Diniz, E., Porto de Albuquerque, J., & Cernev, A. (2011). *Mobile Money and Payment: a literature review based on academic and practitioner-oriented publications (2001-2011)*. Oriented Publications (2001-2011)(December 3, 2011). Proceedings of SIG GlobDev Fourth Annual Workshop, Shanghai, China December.
- Duffie, D., & Singleton, K. J. (2012). *Credit risk: pricing, measurement, and management*. In *Credit Risk*. Princeton university press.
- Elizabeth, N. M. (2020). *Digital credit borrowing and the financial risk exposure of micro and small enterprises in Nairobi city county, Kenya*.
- Gopane, T. J. (2021). *Mobile money system and market risk mitigation: an econometric case study of Kenya's farm business*. *Agricultural Finance Review*, 81(3), 310-327.
- Hull, J. (2012). *Risk management and financial institutions, + Web Site (Vol. 733)*. John Wiley & Sons.
- International Finance Corporation World Bank Group. (2020). *Liquidity Management for Mobile Money Providers*. <https://documents1.worldbank.org/curated/en/802221501150875893/pdf/117459-WP-Tool-10-5-Liquidity-Management-Series-IFC-mobile-money-toolkit-PUBLIC.pdf>
- Jack, W., & Suri, T. (2014). Risk Sharing and Transactions Costs: Evidence from Kenya's Mobile Money Revolution. *The American Economic Review*, 104(1), 183-223. <https://www.jstor.org/stable/42920692>
- Keynes, J. M. (1936). *The General Theory of Employment, Interest, and Money*. https://www.files.ethz.ch/isn/125515/1366_KeynesTheoryofEmployment.pdf
- Kiarie, J., & Wambugu, L. (2023). Operational Efficiency and Performance of Mobile Money Agents in Rural Kenya. *International Journal of Business and Management*, 18(4), 112-125.
- Mas, I., & Morawczynski, O. (2009). Designing Mobile Money Services Lessons from M-PESA. *Innovations: Technology, Governance, Globalization*, 4(2), 77-91. <https://doi.org/10.1162/itgg.2009.4.2.77>
- Masavu, N. M. (2022). *Relationship Between Financial Risk Management And The Financial Performance Of Microfinance Institutions In Kenya (Doctoral dissertation, KCA University)*.
- Mbithi, G., & Mwikya, J. (2021). *Mobile Financial Services and Mobile Commerce on Performance of Micro, Small and Medium Enterprises in Kenya: A Case Study of Kitengela, Kajiado County*.
- Merton, R. C. (1974). On the Pricing of Corporate Debt: The Risk Structure of Interest Rates. *The Journal of Finance*, 29(2), 449. <https://doi.org/10.2307/2978814>

- Millan, Elizabeth Nabwire, Charles Guandaru Kamau, and Mary Peninah Ibua. "Effect of Mobile Banking Technology on Loan Performance of Deposit Taking Savings and Credit Cooperative Organisations in Mombasa County, Kenya." *Universal Journal of Accounting and Finance* 11, no. 3 (2023): 53-62.
- Musembi, P. M. (2024). Africa's Contributions to Digital Technology: A Case of M-Pesa Technology in Kenya. In *Contributions of Africa's Indigenous Knowledge to the Wave of Digital Technology: Decolonial Perspectives* (pp. 260-289). IGI Global.
- Mwaiwa, F., Kwasira, J., Boit, R., & Chelule, J. (2022). Agent Banking and Sustainable Competitive Advantage for Commercial Banks in Kenya. *European Journal of Accounting, Auditing and Finance Research*, 10(4), 36-51.
- Ngotho, M. M. (2020). Impact Of Credit Risk Management Practices on Mobile Loans in Kenya.
- Odhiambo, J. D., & Murori, C. K. (2024). Utility Function's Influence on Insurance Policy Customer Choices. *East African Finance Journal*, 3(2), 215-222
- Omar, A., & Koori, J. (2022). Mobile banking services and financial performance of Saccos in Mandera County, Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting*, 4(2), 96-111.
- Paelo, A., & Roberts, S. (2022). Competition and regulation of mobile money platforms in Africa: A comparative analysis of Kenya and Uganda. *Review of Industrial Organization*, 60(3), 463-489.
- Patrick, M. K., Kamau, C. G., & Ratanya, S. N. (2024). Influence of information processing bias on investment decision of equity investors at Nairobi securities exchange in Kenya. *Journal of Contemporary Research in Business, Economics and Finance*, 6(2), 59-67.
- Pilbeam, K. (2018). *Finance & financial markets* (4th ed.). Palgrave Macmillan Education.
- Powell, A. (2004). *Basel II and Developing Countries: Sailing through the Sea of Standards*.
<https://documents.worldbank.org/curated/en/282251468780617177/pdf/wps3387BASE1.pdf>
- SAFARICOM. (n.d.). Safaricom - Our Commitment | Story | What We Do. [Www.safaricom.co.ke](http://www.safaricom.co.ke).
<https://www.safaricom.co.ke/about/who-we-are/our-story>
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
- Turgut, G. (2022). *Effect of cash management practices on financial sustainability of small and medium scale enterprises in Kericho central business district, Kenya* (Doctoral dissertation, university of kabianga).
- Van Hove, L., & Dubus, A. (2019). M-PESA and financial inclusion in Kenya: of paying comes saving?. *Sustainability*, 11(3), 568.
- Wachira, G., & Njuguna, A. (2023). Enhancing Growth and Productivity Through Mobile Money Financial Technology Services: The Case of M-Pesa in Kenya. *International Journal of Economics and Finance*, 15(12), 1-91.

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