The Effects of Mobile Money Systems on Business Performance among Informal Traders in Dar es Salaam, Tanzania

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ABSTRACT

The introduction of mobile money systems has significantly enhanced financial services in Dar es Salaam, providing essential financial tools for informal traders who often lack access to formal banking. These systems enable traders to store, send, receive money, and access microloans, improving transaction speed, convenience, and overall business efficiency. This study aims to evaluate the effects of mobile money systems on informal traders' business performance, focusing on capital growth, customer base expansion, and operational management. Using a mixed-methods approach with qualitative interviews and a quantitative survey, the research found that mobile money systems positively affect financial management and business growth. However, traders face challenges such as high transaction costs and system complexity, which hinder full adoption. The study concludes that mobile money has the potential to significantly transform informal trade by fostering financial inclusion, enhancing liquidity, and improving trade efficiencies, but it also highlights the need for targeted policy interventions to address barriers to adoption and maximize its benefits for this sector. This research also recommends reducing transaction fees and fostering supportive regulatory environments to promote digital financial inclusion.

Keywords: Business Performance, Informal Traders, Mobile Money Systems

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I. INTRODUCTION

The introduction of mobile money systems has helped to enhance financial services, particularly in developing economies where traditional banking infrastructure may be limited or inaccessible (Pipitwanichakarn & Wongtada, 2019; Rumanyika et al., 2021). Mobile money systems, which allow users to store, send, receive money, and borrow money through their mobile phones, have rapidly become an essential financial tool for informal traders (Pipitwanichakarn & Wongtada, 2019; Thathsarani & Jianguo, 2022). This technology is especially transformative for informal traders, who constitute a significant portion of the economy, yet often lack access to formal financial services (Saputra et al., 2023; Thathsarani & Jianguo, 2022; Williams & Nadin, 2022). The adoption of mobile money systems by informal traders has been influenced by its convenience, security, and its ability to facilitate transactions without the need for a physical bank account (Pipitwanichakarn & Wongtada, 2019; Thathsarani & Jianguo, 2022).

Informal traders typically operate in unregulated or less regulated sectors, often without access to formal credit (Gomera, 2022). This sector includes a wide range of activities such as street vending and small-scale retailing (Mramba et al., 2017; Rumanyika et al., 2019). The nature of informal trade presents challenges such as limited access to capital, fluctuating customer bases, and vulnerabilities to market changes (Sun & Shang, 2020; Thathsarani & Jianguo, 2022). In this context, mobile money systems offer a potential for the solution by providing a means of financial inclusion that can help these traders overcome some of their challenges (Asadullah et al., 2018; Oreku et al., 2013; UNCTAD, 2022).

By facilitating smoother transactions and providing a safe alternative for cash handling, mobile money systems can significantly enhance the operational efficiency of informal businesses (Krichewsky-Wegener, 2020). That is, digital payments can reduce the risks associated with cash transactions such as theft, and can streamline accounting processes (Okeleke, 2019; Rumanyika et al., 2021).

Furthermore, mobile money systems can broaden customer reach by enabling traders to serve customers who prefer digital payments (Chacaltana et al., 2018; UNCTAD, 2015). This is important as customer preferences shift towards cashless transactions (Muhanga, 2017; Salam et al., 2018). For many informal traders, adopting mobile money systems has granted them opportunities for financial growth, such as access to microloans offered through mobile platforms (Okeleke, 2019; Rumanyika et al., 2021).

1.1. Problem statement

Informal traders contribute to the growth of the national economy as they help to create job opportunities for young people, reducing the poverty rate, and contribute to the GDP with low operating costs (Pallangyo, 2021). This is possible through street trading, which is the most common informal work engaging traders in developing countries (Mramba et al., 2016). However, informal trading in developing countries such as Tanzania is not without challenges notably the erosion of government revenue, lack of labor legislation and social protection, limited access to markets, and insecure and inappropriate working conditions (Mramba et al., 2016). Due to the sector's role in employment provision (Mramba et al., 2016), household economic growth (Moses & Liu, 2022), and increased government revenue (Chacaltana et al., 2018; Gomera, 2022; Onyima & Ojiagu, 2017), governments in developing countries have made deliberated efforts in addressing challenges confronting the informal trading (Mramba et al., 2016).

Digital solutions have positively impacted informal traders in terms of aiding in financial management, business growth, and expansion (Jegede, 2020; Okeleke, 2019; UNCTAD, 2022). Through digital solutions such as mobile money systems, informal traders' operations have been enhanced (Chacaltana et al., 2018) thus improving product/service mix, the expansion of customer base, and enhancing of market access (Moses & Liu, 2022), while improving efficiency. As a result, mobile money systems also support capital growth and enhancing safer saving methods (Onyima & Ojiagu, 2017). The widespread use of mobile money systems has helped informal traders to strengthen customer relationships through better payment methods (Mramba et al., 2016; Rumanyika et al., 2021). Digital solutions, particularly mobile money systems, have been shown to positively impact informal traders by enhancing financial management, operational efficiency, and business growth (Berrou & Gondard-Delcroix, 2018; Ilavarasan, 2019; Mramba et al., 2016).

Despite these benefits, there is limited information on how the use of mobile money systems influences specific business performance indicators, such as capital growth, and customer base expansion. Therefore, this study focused on the impact of mobile money systems usage on business performance among informal traders. To achieve this objective, the study considered the transformation of such aspects as capital growth and an increase in customer base as indicators of dependent variables.

Previous researchers have already done much on the current research topic on technology for street traders (Mramba et al., 2016), digital finances (Thathsarani & Jianguo, 2022), digital technology and formalization of informal economy (Onyima & Ojiagu, 2017), and mobile technology for street traders (Okeleke, 2019; Rumanyika et al., 2021); however, literature on the impact of mobile money systems on the business performance of informal traders is scanty. Accordingly, the current study intends to address this research gap by considering the impact of mobile money systems on such aspects as capital growth, and an increased customer base (Rumanyika et al., 2021; Thathsarani & Jianguo, 2022). This approach is envisaged to ensure a proper understanding of the relationship between mobile money systems usage and informal traders' business performance.

This paper aims to investigate the impact of mobile money systems on the business performance among informal traders. It seeks to explore several key dimensions: the influence of mobile money on business efficiency and operation management (Chacaltana et al., 2018; Rumanyika et al., 2021), and its role in improving customer retention and satisfaction (Krichewsky-Wegener, 2020; Rumanyika et al., 2021).

Therefore, the objective of this research is to evaluate the effects of mobile money systems usage on the business performance of informal traders. This study aims to assess how the adoption of mobile money services influences critical performance metrics such as operational efficiency, capital growth, and market expansion within the informal sector. This research seeks to offer a comprehensive understanding of how mobile money can catalyze improving business outcomes and fostering economic resilience among informal traders.

1.2 Research Objective

i.   To evaluate the effects of mobile money systems usage on the business performance of informal traders in Dar es Salaam.
ii.   To determine the role of mobile money in fostering economic resilience within the informal trading sector in Dar es Salaam.

1.3 Research Questions

i.   How does mobile money systems usage affect the business performance of informal traders in Dar es Salaam?
ii.   What is the role of mobile money in fostering economic resilience within the informal trading sector in Dar es Salaam?

II. LITERATURE REVIEW

2.1 Theoretical Review

The growing use of mobile money systems has radically changed the way of conducting trading activities in Dar es Salaam through transforming traditional practices and opening new channels of growth for informal traders (Kapinga et al., 2019; Krichewsky-Wegener, 2020). Understanding the significance of mobile money systems adoption on business performance of informal traders is essential for finding the best way of dealing with the changing trading situations (Cozzens & Sutz, 2012; Okeleke, 2019; Szogs, 2010). This theoretical literature review looks at the Technology Acceptance Model (TAM) (Bradley, 2009; Ghazizadeh et al., 2012) to determine the drivers for mobile money systems usage among informal traders in Dar es Salaam. Through examining the usability, utility and the role of mobile money systems, this review aims at elaborating how these systems impact business performance of informal traders (Prasetyo, 2021; Sun & Shang, 2020).

The Technology Acceptance Model (TAM) highlights the significance of perceived ease of use (PEOU) and perceived usefulness (PU) in influencing users' intentions to adopt and utilize technology (Ghazizadeh et al., 2012; Pipitwanichakarn & Wongtada, 2019). In the context of informal traders in Dar es Salaam, TAM serves as a foundation for investigating informal traders' perceptions towards mobile money systems shape their usage patterns and business performance (Bradley, 2009; Ghazizadeh et al., 2012). According to PEOU users' beliefs on the ease of use encompasses factors such as task performance, system's operation, and usability. For informal traders, PEOU serves as a gauge for identifying challenges with mobile money systems and their impact on usage and performance (Pipitwanichakarn & Wongtada, 2019; Thathsarani & Jianguo, 2022). Conversely, PU gauges users' beliefs on the system's ability to enhance job performance, encompasses factors such as productivity, effectiveness, and management efficiency (Ghazizadeh et al., 2012). TAM links these perceptions to the enabling structures of mobile money systems, highlighting how perceived benefits in performance and customer reach motivate traders to adopt and continually use these systems (Ghazizadeh et al., 2012; Legris et al., 2003; Thathsarani & Jianguo, 2022). Overall, TAM provides a robust framework for understanding the interplay between traders' perceptions of mobile money systems usability and usefulness(Ghazizadeh et al., 2012), and their subsequent impact on business performance (Thathsarani & Jianguo, 2022).

2.2 Empirical Review

The empirical review provides valuable insights into how mobile money systems impact the business performance of informal traders, using the Technology Acceptance Model (TAM) to explain adoption patterns (Lee et al., 2003; Venkatesh, 2000). TAM suggests that perceived usefulness (PU) and perceived ease of use (PEOU) are critical determinants of users' acceptance and use of technology (Ghazizadeh et al., 2012; Thathsarani & Jianguo, 2022). This framework is applied to understand how mobile money systems affect various aspects of informal traders' operations, such as business financing, customer retention, and overall business efficiency (Ghazizadeh et al., 2012; Legris et al., 2003; Thathsarani & Jianguo, 2022).

Empirical studies consistently highlight the positive impact of mobile money systems on business performance by improving access to capital and enhancing financial management. Informal traders who adopt mobile money platforms experience increased access to capital, increased financial stability, easier access to loans, and better management of finances (Pipitwanichakarn & Wongtada, 2019; Thathsarani & Jianguo, 2022). Similarly, informal traders using mobile money services experienced notable improvements in their financial performance, with increased access to credit and expanded financial networks, leading to better business growth and stability (Pipitwanichakarn & Wongtada, 2019; Xiang et al., 2022).

Customer retention and satisfaction are critical for the sustainability of informal businesses (UNCTAD, 2022). In a study that examined the impact of M-PESA, a mobile money service in Tanzania, on customer retention among small traders. They found that the perceived ease of use and security of M-Pesa (high PEOU and PU) led to higher customer satisfaction and repeat business (Oreku et al., 2013). Customers preferred dealing with traders who accepted mobile money due to the reduced risk of carrying cash and the convenience of quick transactions (Asadullah et al., 2018; Chen, 2016; Oreku et al., 2013).

Mobile money systems significantly enhance business efficiency and operational management for informal traders (Asadullah et al., 2018). In a study conducted by Rumanyika J. et al. (2019) on street vendors in Tanzania, mobile money was found to streamline business operations, reducing the time spent on transactions and improving cash flow management. The perceived usefulness of mobile money in managing day-to-day operations was a strong motivator for adoption (Thathsarani & Jianguo, 2022). Another study by Krichewsky Wegener (2020) on mobile money systems users revealed that traders could manage their inventories more effectively and maintain better financial records, leading to improved business outcomes.

Despite the benefits, several challenges limit the adoption and effective use of mobile money systems among informal traders. Barriers such as lack of digital literacy, network reliability issues, and transaction fees are significant obstacles (Moses & Liu, 2022; Oreku et al., 2013). These factors negatively affect the perceived ease of use and usefulness, hindering broader adoption (Thathsarani & Jianguo, 2022). To address these challenges, it is essential to enhance digital literacy, improve infrastructure, and reduce costs associated with mobile money transactions (Chacaltana et al., 2018; Krichewsky-Wegener, 2020).

The empirical evidence underscores the substantial positive impact of mobile money systems on the business performance of informal traders. The Technology Acceptance Model provides a valuable framework for understanding these impacts, highlighting the importance of perceived usefulness and ease of use in driving adoption (Bradley, 2009; Lee et al., 2003; Thathsarani & Jianguo, 2022). Mobile money systems enhance business financing, improve customer retention and satisfaction, increase business efficiency, and promote financial inclusion (Chacaltana et al., 2018; Krichewsky-Wegener, 2020; Thathsarani & Jianguo, 2022). However, addressing the challenges and barriers to adoption is crucial for maximizing the benefits of mobile money for informal traders (Rumanyika et al., 2019).

III. METHODOLOGY

3.1 Research Design
This study employed a mixed-methods approach, integrating both qualitative and quantitative methodologies to provide a comprehensive analysis of the effects of digital platforms usage on informal traders' business performance (Dash, 2017; Kothari, 2004). The qualitative phase involved in-depth interviews to expose key themes, which were subsequently used to design a structured questionnaire for the quantitative phase (Kothari, 2004). This approach ensures a thorough understanding by combining detailed personal insights with broader statistical data (Ahmad, 2019)

3.2 Population of the Study
Informal traders in different sectors such as retail, entrepreneurship, and services within the Kariakoo Market in Dar es Salaam. This is because there are large numbers of informal traders in these areas who will be useful for my study.

3.3 Sampling technique and Sample Size
This study adopts purposive and random sampling (Kothari, 2004); using purposive sampling I select a population of informal traders in the Kariakoo market area, and then by using random sampling I will select respondents giving equal chances for every individual within the population to be selected (Kothari, 2004). For the qualitative sample, I used the Purposive sampling method to select 10 informal traders from various sectors, whereby the selection criteria were informal traders using mobile money systems; and stratified random sampling of N=380 informal traders from Kariakoo Market for my quantitative data (obtained from Dar es Salaam regional office website – https://dsm.go.tz).

3.4 Data Collection Tools
For the quantitative phase, the data collection tool used was a questionnaire. To ensure ethical considerations and the validity of the data to our objectives, the questionnaire was pilot-tested with a small group of informal traders to identify and rectify any ambiguities or biases in the questions (Ahmad, 2019; Noor, 2008; Kothari, 2004). Also, for qualitative data, a semi-structured interview was used to collect data. It included open-ended questions focusing on clarification and elaboration (Suruc & Maslakci, 2020).

3.5 Data Analysis
Since this study is a mixed methods study, quantitative data will be collected through a questionnaire and then analyzed through inferential statistics using SPSS tool. Thus, qualitative data will be collected through interviews and then analyzed through content analysis and thematic analysis.

IV. FINDINGS & DISCUSSION

4.1 Qualitative Findings
In-depth interviews were conducted with 10 informal traders to gather qualitative data. The insights gained from these interviews provide the basis for understanding the benefits and challenges associated with mobile money systems usage by informal traders.

4.1.1 Thematic Analysis

The qualitative data collected from interviews with informal traders in Dar es Salaam revealed several key themes. One prominent theme is the significant rate of customer base expansion facilitated by digital platforms, where mobile money system facilitates easier payment processes. Trader A exemplifies this sentiment, *"……mimi natumia sana hizi Instagram na Whatsapp kwenye mishe zangu. Naweza kusema zimenisaidia sana kupata wateja hata nje ya Dar, kitu ambacho kinatia faraja sana."* This can be translated into; "Through WhatsApp and Facebook, I have been able to reach many more customers even those outside Dar es Salaam. This has been giving me hope." These words were echoed by most traders interviewed, emphasizing the widespread use and effectiveness of digital platforms in reaching a broader audience.

Another notable theme is the improvement in transaction speed and convenience brought by mobile money services. Trader B highlighted this aspect, "M-Pesa makes transactions easy and fast. It is also a secure means for managing finances. Its services such as SONGESHA, M-PAWA, and M-KOBA; facilitate services such as loans and savings." This observation underscores the role of mobile money systems in simplifying business operations and improving efficiency for informal traders.

However, despite the benefits, traders also face some challenges in using mobile money systems for their business activities. Issues such as the complexity of the menu, transaction charge rates, and security concerns were frequently mentioned. Traders H and D expressed their concern about the mobile money systems menu complexity, while Traders C, G, I, and J emphasized the transactional charges, highlighting the practical challenges encountered by traders in the effective utilization of the systems.

Furthermore, technical difficulties occasionally interrupt business operations, adding another layer of challenge for traders. Traders voiced their concerns about security issues on mobile money systems and the complexity, reflecting technical issues faced by traders in navigating the mobile money systems menu.

4.2 Mobile Money Services and Cash flow in the business

Mobile money services have contributed to enabling informal traders to have savings and achieve their goals through an enhanced financial inclusion (Krichewsky-Wegener, 2020; Thathsarani & Jianguo, 2022). According to the study findings, the degree of correlation between mobile money (digital finances) service charges and business cash flow is 1. This is elaborated using:

Table 1

Table of Coefficients

Coefficients [a]					
	Unstandardized coefficients		Standardized Coefficients	t	Sig.
Model	B	Std. Error	Beta		
1 (Constant)	.944	.086		11.001	< .001
Digital_Marketing	.423	.020	.798	21.278	< .001
Mobilemoney_Systems	.040	.027	.056	1.480	.140

Dependent Variable: Business Performance

The effects of mobile money systems on the business performance of informal traders in Dar es Salaam are significant, particularly when considering their influence on business financing. The findings suggest that mobile money systems enhance traders' abilities to save, manage their finances, and achieve financial objectives, contributing to improved financial management practices. This accessibility and efficiency foster greater business sustainability and growth within the informal sector. However, the analysis also highlights the limited impact of mobile money on overall business performance compared to more potent strategies like digital marketing.

Furthermore, while mobile money platforms offer substantial benefits, concerns regarding the costs associated with their usage may inhibit some traders from fully realizing their potential. The study's findings, including a weaker statistical significance (t-value = 1.480, p-value = 0.140) for mobile money's impact on performance, indicate that, despite their positive influence on financial management, the economic resilience of informal traders could be compromised by these cost-related issues. Thus, while mobile money systems play a vital role in improving financial practices, addressing the challenges related to their cost will be essential for maximizing their benefits within the informal trading sector.

Table 2
Table of Correlations

Correlations		Mobile Money service charges satisfaction level	Positive Cash Flow in Business
Mobile money service charges satisfaction level	Pearson Correlation	1	-.048
	Sig. (2-tailed)		.407
	N	303	303
Positive cash flow in business	Pearson Correlation	-.048	1
	Sig. (2-tailed)	.407	
	N	303	303

The Influence of Mobile Money Systems in Business Financing among Informal Traders

Mobile money systems significantly influence business financing among informal traders in Dar es Salaam. The research revealed that mobile money systems help traders save and achieve their business goals. Specifically, 50.2 percent of the participants agreed that mobile money systems have facilitated their ability to save and meet financial objectives. This highlights the critical role of mobile money inclusion in enhancing financial management practices among informal traders. By providing easily accessible and efficient financial services, mobile money platforms help traders manage their finances more effectively, leading to business improvement and sustainable growth.

However, the study revealed mixed opinions regarding the cost of mobile money services. While 37.9 percent of participants found the cost satisfactory, a significant portion (40.6%) remained neutral. This suggests that while mobile money services are beneficial, the associated costs may still be a concern for some traders. Balancing the benefits of mobile money services with their systems plays a crucial role in supporting business financing by improving savings capabilities and helping traders achieve their financial goals, thereby contributing to their businesses' overall growth and sustainability.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusion

This study has explored the impact of mobile money systems on business performance among informal traders in Dar es Salaam. The findings indicate that mobile money systems have a significant positive influence on business financing by enhancing the ability of traders to save, manage their finances, and achieve their financial objectives. The accessibility and efficiency provided by mobile money platforms contribute to improved financial management practices, leading to greater business sustainability and growth within the informal sector. However, the study also identified concerns related to the costs associated with using mobile money services, suggesting that while these systems offer considerable benefits, cost-related issues may hinder their full potential for some traders.

5.2 Recommendations

To maximize the benefits of mobile money systems for informal traders, it is crucial to address the issue of cost. Mobile money service providers should work towards improving cost transparency and reducing transaction fees. By making these services more affordable and accessible, especially for small-scale traders, the adoption and utilization of mobile money systems can be significantly enhanced. Additionally, financial education programs tailored to informal traders should be implemented by financial institutions and relevant stakeholders. These programs would equip traders with the necessary knowledge to effectively manage their finances and fully leverage mobile money services to meet their business objectives.

Policymakers also play a vital role in fostering digital financial inclusion by creating a supportive regulatory environment. This includes promoting innovation within mobile money services while ensuring adequate consumer protection. By encouraging the growth of mobile money platforms, policymakers can help bridge the financial gap faced by informal traders, leading to improved business sustainability and growth.

REFERENCES

Ahmad, M. B. (2019). Quantitative data collection methods. In *Research methods in communication & media studies* (pp. 188–205). Franklin International Publishers.

Asadullah, A., Faik, I., & Kankanhalli, A. (2018). Digital platforms: A review and future directions. *PACIS 2018 Proceedings, 248.* Retrieved from https://aisel.aisnet.org/pacis2018/248

Berrou, J. P., & Gondard-Delcroix, C. (2018). Dynamics of social networks of urban informal entrepreneurs in an African economy. *Review of Social Economy, 76*(2), 167–197. https://doi.org/10.1080/00346764.2017.1349330

Bradley, J. (2009). The Technology Acceptance Model and Other User Acceptance Theories. In Y. Dwivedi, B. Lal, M. Williams, S. Schneberger, & M. Wade (Eds.), *Handbook of Research on Contemporary Theoretical Models in Information Systems* (pp. 277-294). IGI Global Scientific Publishing. https://doi.org/10.4018/978-1-60566-659-4.ch015

Chacaltana, J., Leung, V., & Lee, M. (2018). *New technologies and the transition to formality: The trend towards e-formality* (Employment Working Paper No. 247). Employment Policy Department, International Labour Organization.

Chen, M. A. (2016). Technology, informal workers, and cities: Insights from Ahmedabad (India), Durban (South Africa), and Lima (Peru). *Environment and Urbanization, 28*(2), 405–422. https://doi.org/10.1177/0956247816655986

Cozzens, S., & Sutz, J. (2012). *Innovation in informal settings: A research agenda* (pp. 1–53). https://idl-bnc-idrc.dspacedirect.org/server/api/core/bitstreams/26bc9ac6-34f1-4038-9385-e6a3d05c0398/content

Dash, B. (2017). *Methods of data collection*. In *Essentials of nursing research & biostatistics*. Jaypee Brothers Medical Publishers. https://doi.org/10.5005/jp/books/13075_10

Ghazizadeh, M., Lee, J. D., & Boyle, L. N. (2012). Extending the Technology Acceptance Model to assess automation. *Cognition, Technology & Work, 14*(1), 39–49. https://doi.org/10.1007/s10111-011-0194-3

Gomera, W. C. (2022). Enhance tax administration to informal traders in Tanzania through digital technology: The user requirements definition. *European Journal of Business and Innovation Research, 10*(2), 30–59.

Ilavarasan, P. V. (2019). Present and future of the use and impact of information and communication technology in informal microenterprises: Insights from India. *Electronic Journal of Information Systems in Developing Countries, 85*(3), 1–9. https://doi.org/10.1002/isd2.12091

Jegede, O. O. (2020). Dynamics of innovation in the informal settings. *International Journal of Innovation, Creativity and Change, 13*(12), 809. Retrieved from https://www.ijicc.net/images/vol_13/Iss_12/131273_Jegede_2020_E_R.pdf

Kapinga, A. F., Suero Montero, C., & Mbise, E. R. (2019). Mobile marketing application for entrepreneurship development: Co-design with women entrepreneurs in Iringa, Tanzania. *Electronic Journal of Information Systems in Developing Countries, 85*(2), 1–15. https://doi.org/10.1002/isd2.12073

Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). New Age International Publishers.

Krichewsky-Wegener, L. (2020). *Digital transformation in the informal economy: Opportunities and challenges for technical and vocational education and training in development cooperation* (Background materials on TVET, Vol. 1). Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

Lee, Y., Kozar, K. A., & Larsen, K. R. T. (2003). The Technology Acceptance Model: Past, present, and future. *Communications of the Association for Information Systems, 12*(December). https://doi.org/10.17705/1CAIS.01250

Legris, P., Ingham, J., & Collerette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information and Management, 40*(3), 191–204. https://doi.org/10.1016/S0378-7206(01)00143-4

Moses, K. M., & Liu, W.-T. (2022). The role of TVET skill development in the transformation of the informal sector in developing countries: The case study of the Skilling Uganda program in Kampala urban area, Uganda. *Proceedings, 83*(1), 46. https://doi.org/10.3390/proceedings2022083046

Mramba, N., Apiola, M., Kolog, E. A., & Sutinen, E. (2016). Technology for street traders in Tanzania: A design science research approach. *Journal of Information Technology for Development, 1338.* https://doi.org/10.1080/20421338.2016.1147208

Mramba, N., Rumanyika, J., Apiola, M., & Suhonen, J. (2017). ICT for informal workers in Sub-Saharan Africa: Systematic review and analysis. In *2017 IEEE AFRICON: Science, technology, and innovation for Africa, AFRICON 2017* (pp. 486–491). https://doi.org/10.1109/AFRCON.2017.8095530

Muhanga, M. (2017). Informal sector in urban areas in Tanzania: some socio-demographic, economic and legal aspects. *International Journal of Accounting and Economics Studies*, *5*(2), 163. Https://doi.org/10.14419/ijaes.v5i2.8495

Noor, K. B. M. (2008). Case study: A strategic research methodology. *American Journal of Applied Sciences, 5*(11), 1602–1604. https://doi.org/10.3844/ajassp.2008.1602.1604

Okeleke, K. (2019). *Digital transformation in Tanzania: The role of mobile technology and impact on development goals*. GSM Association.

Onyima, J. K., & Ojiagu, N. C. (2017). Digital technology and formalization of informal businesses: A case of African traditional spiritualists. *International Journal of Arts & Research in Business and Social Science, 7*(11), 599–609. http://dx.doi.org/10.6007/IJARBSS/v7-i11/3501

Oreku, G. S., Mtenzi, F. J., & Al-Dahoud, A. (2013). A viewpoint of Tanzania e-commerce and implementation barriers. *Computer Science and Information Systems, 10*(1), 263–281. https://doi.org/10.2298/CSIS110725002O

Pallangyo, W. A. (2021). The informal sector and the safety of female traders in Tanzania: A reflection of practices, policies, and legislation. *WIDER Working Paper 2021/160*. UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2021/100-6

Pipitwanichakarn, T., & Wongtada, N. (2021). Leveraging the technology acceptance model for mobile commerce adoption under distinct stages of adoption: A case of micro businesses. *Asia Pacific Journal of Marketing and Logistics, 33*(6), 1415–1436. https://doi.org/10.1108/APJML-10-2018-0448

Prasetyo, E. H. (2022). Legitimacy building of digital platforms in the informal economy: Evidence from Indonesia. *Journal of Entrepreneurship in Emerging Economies, 14*(6), 1168–1187. https://doi.org/10.1108/JEEE-02-2021-0073

Rumanyika, J., Apiola, M., Mramba, N. R., Oyelere, S. S., & Tedre, M. (2021). Mobile technology for street trading in Tanzania: A design science research approach for determining user requirements. *Electronic Journal of Information Systems in Developing Countries, 87*(5), e12176. https://doi.org/10.1002/isd2.12176

Rumanyika, J., Tedre, M., Apiola, M., & Mramba, N. R. (2019). Mobile technology usage for street traders' market search in Dodoma—Urban Tanzania: An exploratory study. *African Journal of Information Systems, 11*(4).

Salam, U., Lee, S., Fullerton, V., Yusuf, Y., Krantz, S., & Henstridge, M. (2018). Tanzania case study: Rapid technological change – challenges and opportunities. *Pathways for Prosperity Commission Background Paper Series, No. 7*. Oxford, UK.

Saputra, W., Sukmaniar, & Monanisa. (2023). Digital economic challenges in the informal sector of Palembang City. *E3S Web of Conferences, 468*, 07001. https://doi.org/10.1051/e3sconf/202346807001

Sun, Y., & Shang, R. (2020). The interplay between users' intraorganizational social media use and social capital. *Computers in Human Behavior, 37*, 334–341. https://doi.org/10.1016/j.chb.2014.03.048

Suruc, L., & Maslakci, A. (2020). Validity and reliability in quantitative research. *Business & Management Studies: An International Journal, 8*(3). https://doi.org/10.15295/bmij.v8i3.1540

Szogs, A. (2010). *Technology transfer and technological capability building in informal firms in Tanzania* [Doctoral thesis, CIRCLE]. Lund University.

Thathsarani, U. S., & Jianguo, W. (2022). Do digital finance and the technology acceptance model strengthen financial inclusion and SME performance? *Information, 13*(8), 390. https://doi.org/10.3390/info13080390

UNCTAD. (2015). *Technology and innovation report 2015: Fostering innovation policies* (Issue December). United Nations Conference on Trade and Development.

UNCTAD. (2022). *Digitalisation of services: What does it imply to trade and development?* (UNCTAD Publication No. ISBN 9789210012539). https://doi.org/10.18356/9789210012539

Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information Systems Research, 11*(4), 342–365. https://doi.org/10.1287/isre.11.4.342.11872

Williams, C., & Nadin, S. (2010). Entrepreneurship and the informal economy: An overview. *Journal of Developmental Entrepreneurship, 15*(4), 361–378. https://doi.org/10.2139/ssrn.2290544

Xiang, H., Chau, K. Y., Iqbal, W., Irfan, M., & Dagar, V. (2022). Determinants of social commerce usage and online impulse purchase: Implications for business and digital revolution. *Frontiers in Psychology, 13*, 1–13. https://doi.org/10.3389/fpsyg.2022.837042