

The Contribution of Technology-Driven Mobile Financial Service Platforms to the Livelihoods of Informal Female Traders: A Case of MTN Mobile Money in Tamale, Ghana

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ABSTRACT

The present study explored the impact of MTN Mobile Money (MOMO) services on the livelihoods of informal female traders in Ghana using a qualitative research approach grounded in the interpretive paradigm. The study employed a single instrumental case study design and collected data through face-to-face interviews with 15 informal female merchants and a focus group discussion with eight informal female traders, as well as separate interviews with key informants in MTN. The findings revealed that MTN MOMO brought convenience to the lives of informal female traders by enabling instant financial transactions, reducing travel costs and time, and providing access to soft loans. The ability to accept payments through MTN MOMO also allowed informal female traders to carry on with their businesses and support their families despite challenging financial conditions. The study supports the conclusion that mobile money platforms like MTN MOMO have the potential to significantly contribute to financial inclusion and economic growth in developing nations, particularly for women who are excluded from traditional financial services.

1.0 Introduction

Particularly in developing countries, the use of technology-driven mobile financial service platforms has significantly increased in recent years (Ado, Su, and Wanjiru, 2017). New potential for financial inclusion for people and enterprises, particularly those in the informal sector, have been made possible by the growth of these platforms (Afzal, et. al., 2018). Women in particular have been shown to gain from these platforms because they frequently encounter more obstacles when trying to obtain traditional financial services (Garca-Jiménez & Martnez-Jerez, 2018). It was worthwhile, to examine this issue in detail in this research.

Ghana has a sizable informal sector, and 80% of the people, according to Aryeetey & Söderbom (2008), depend on it for their livelihoods. Women are disproportionately overrepresented in the unorganized sector, and many of them participate in small-scale trade (MTN, 2021 and Ado, Su, and Wanjiru, 2017).). Even so, it can be difficult for women working in the informal sector to receive financial services since traditional financial institutions are usually out of reach or out of their price range, keeping them out of the official financial system (Garca-Jiménez & Martnez-Jerez, 2018).

According to research by Garcia-Jiménez and Martnez-Jerez (2018), mobile financial services provide individuals and enterprises who operate in the informal economy brand-new prospects for financial inclusion. These technological platforms provide a wide range of services, including credit, savings, transfers, and payments (Ahsan and Fernhaber, 2019). In Ghana, the use of mobile financial services has increased quickly, and a sizeable section of the population now depends on these platforms for financial transactions (Aryeetey & Söderbom, 2008). A lot of clients, especially women working in the informal economy, have been successfully reached by MTN Mobile Money, in particular (Garca-Jiménez & Martnez-Jerez, 2018) and this has a lot of implications for MTN and the Ghanaian economy which are examined in this paper.

The main aim of this research is to assess how MTN Mobile Money affects the lives of female informal traders in Tamale, Ghana. The use of the platform by these women and its effects on their enterprises and general financial health was closely examined in this research. The results of this study will provide important new information about how technology-driven mobile financial services might help women working in the informal sector become more financially included using the frameworks of Nanpuan, (2021, 2008), Garca-Jiménez, and Martnez-Jerez, (2018).

2.0 Theoretical Review of Literature

The Technology Adoption Model (TAM) is a widely used framework in information systems research that provides a useful tool for understanding the adoption of technology (Davis, 1989). The model proposes that there are several key factors that influence the adoption and use of technology, including perceived usefulness, perceived ease of use, and attitudes towards the technology (Davis, 1989).

In the context of this research "The Contribution of Technology-Driven Financial Service Platforms to the Livelihoods of Informal Female Traders: A Case of MTN Mobile Money in Tamale, Ghana," the TAM framework was used to examine the factors that influence the adoption and use of technology-driven financial service platforms, such as MTN Mobile Money, by informal female traders in Tamale, Ghana.

First concept to be examined was the perceived usefulness, which refers to the extent to which an individual believes that using a technology will enhance their job performance or personal life (Davis, 1989). In the case of informal female traders in Tamale, Ghana, perceived usefulness could be evaluated based on the extent to which they believe that using MTN Mobile Money will improve their business performance or financial situation and (Chang, 2016) supported this view.

The next factor was perceived ease of use, this refers to the extent to which an individual believes that using a technology is free of effort (Davis, 1989). In the case of informal female traders in Tamale, Ghana, perceived ease of use could be evaluated based on the ease with which they can use MTN Mobile Money to conduct financial transactions and manage their finances (Chang, 2016).

The third dimension examined was attitudes towards technology refer to the overall evaluation of a technology, including beliefs, feelings, and behavioral intentions towards its use (Davis, 1989). In the case of informal female traders in Tamale, Ghana, attitudes towards technology could be

evaluated based on their beliefs and feelings (Ahuvia, 2001) about the use of MTN Mobile Money, as well as their intentions to continue using the technology in the future (Chang, 2016).

By examining the impact of perceived usefulness, perceived ease of use, and attitudes towards technology on the adoption and use of technology-driven financial service platforms, such as MTN Mobile Money, by informal female traders in Tamale, Ghana, the TAM framework provides a useful tool for evaluating the contribution of technology-driven financial service platforms to the livelihoods of informal female traders (Chang, 2016).

Overall, the Technology Adoption Model (TAM) is a relevant and useful framework for understanding the adoption of technology-driven financial service platforms, such as MTN Mobile Money (MOMO), by informal female traders in Tamale, Ghana, and their impact on the livelihoods of these traders (Davis, 1989). By examining the factors that influence the adoption and use of these platforms, Andrew, et. al., (2018). The TAM framework provides valuable insights into the role of technology in promoting financial inclusion, Alonso-Martínez, et. al., (2021) and improving the livelihoods of informal female traders in Tamale, Ghana (Chang, 2016).

3.0 Research Methodology

3.1 Research Approach

This research employed a qualitative research approach, which was grounded in the interpretive paradigm (Autio, et. al., 2011). This paradigm encompasses a set of theories that aim to uncover the reality of the participants (ontology) by exploring their subjective experiences and perspectives (epistemology) (Carey, 2013; De Vos et al., 2011; Rubin and Babbie, 2017). The qualitative approach facilitated an examination of the contribution of MTN MOMO services to the livelihoods of informal female traders through an exploration of the personal views and experiences of the participants.

Furthermore, the use of the qualitative approach was significant in that it enabled the informal female traders and key informants to have a greater level of control over their contributions (Arundel, et. al., 2020) and the research process, which was crucial for gathering unique and in-depth information (Aylward, 2005) about the use of MTN MOMO services. The interpretive paradigm provided a theoretical foundation for this research, as it emphasized the importance of understanding the participants' subjective experiences and perspectives in exploring their reality and this perspective is supported by many studies (Barkema, et. al, 2015;. Bailetti, 2018; Banerjee, 2022; and Battisti, et al. 2022).

Many studies in entrepreneurship and Small Scale Businesses used qualitative approach and the interpretive paradigm was an appropriate choice for this research, as it allowed the researchers to gain a deeper understanding of the contribution of MTN MOMO services to the livelihoods of informal female traders based on their own experiences and perspectives.

3.2 Research Design

The research employed a case study design, based on the recommendation of Creswell and Poth (2018) and Royse (2016). The design entails exploration of a real-life, contemporary bounded system through a detailed in-depth data collection involving numerous sources of information reported as case descriptions and case themes (Creswell and Poth 2018; Royse 2016). The specific type of case study that was used is the single instrumental case study (Bai, et. al., (2018). This entails focusing on one specific issue within a bounded case that best illustrates a phenomenon (Creswell and Poth 2018).

3.3 Population, Sample and Sampling Procedures

The study population was composed of informal female traders in the city of Tamale in Ghana. The study purposively sampled twenty three (23) informal female traders in Tamale and three (3) key informants from the MTN MOMO vendors association. The technique was appropriate for this study as it allowed the researcher to collect relevant information by engaging participants who had sufficient knowledge and experience (Bai, et. al., 017) of the MTN MOMO operations. This

concur with Carey (2013) who argues that purposive sampling guarantees the relevance of findings. All the informal female traders matched the following inclusion criteria:

- Participants should be informal female traders who have been operating in the city of Tamale for three years and more;
- Participants should have been using the MTN MOMO mobile money platform for three years or more.

All the key informants met the following inclusion criteria:

- Key informants should have been based in Tamale for three years and more;
- Key informants should be knowledgeable about the MTN MOMO mobile money facility; and
- Key informants' work should have been directly or indirectly involved with informal female traders in Tamale for three years or more.

All three key informants who took part in the study confirmed their availability to participate during the data collection period, which set them apart from other potential interviewees who equally met the selection criteria.

3.4 Methods of Data Collection

Face-to-face interviews with 15 informal female merchants and a focus group discussion with eight informal female traders were conducted using a semi-structured interview guide and a focus group discussion guide, respectively. The key informants were interviewed using a separate semi-structured interview guide. Triangulating data gathering methods and information sources was critical for establishing the trustworthiness of conclusions. Face-to-face interviews were appropriate for this study, according to Marshall and Rossman (2016), since they allowed the researcher to do fast follow-ups and inquiries whenever informal female traders and key informants gave information that needed clarification (Bai, et. al., 2019). A focus group discussion was ideal for this study because it allowed the researcher to monitor and effectively respond to the

verbal and nonverbal cues of the informal female traders, as Hennink, Hutter, and Bailey (2011) stated about the benefits of focus group discussions.

3.5 Method of Data Analysis

The collected data and information were analyzed thematically. The process entails detecting, analyzing, and reporting significant patterns or themes in the data collected (Creswell and Poth 2018). The data set in this study-contained information provided by participants during interviews and focus group discussions. Thematic analysis was conducted in the following stages: organizing data, reviewing all data, coding data, constructing themes and descriptions, interrelating themes and descriptions, and evaluating the meaning of themes and descriptions. According to Braun and Clarke (2006), one of the benefits of theme analysis is its flexibility, which allows it to be used with a variety of theoretical frameworks. This was significant for this study because it allowed the researcher to use the SLA as an interpretive lens during the data analysis process.

3.6 Ethical Considerations

During the study, Bryman (2022) observed the following ethical concerns: voluntary participation, informed consent, confidentiality, and anonymity as outline. By sharing the participant information sheet with possible participants, the researcher enabled voluntary engagement of the informal female traders and key informants. The researcher discussed the goal of the study, estimated the time required to finish the interviews or discussions, and stated what the participants should expect during the study. This assured that people opted to engage freely, without fear of compulsion or undue influence or immoral advantages. This is consistent with Strydom's (2011) contention that no one should be forced to participate in a study. Participants signed consent papers agreeing to participate in the study and for the interviews and focus group, discussions to be audio recorded in order to maintain informed consent. The researcher maintained secrecy by storing the participants' voice recordings on a password-protected PC. Furthermore, the transcripts were kept under lock and key by the researcher. According to Baez (2002), maintaining secrecy in this study was critical since it allowed the researcher to respect the privacy of the research participants while also maintaining the study's integrity. When publishing the findings, the researchers maintained

anonymity by using numbers such as Participant 1 and Key Informant 2 rather than the actual identities of the informal female traders and key informants. This is consistent with Seidman's (2013) assertion that every participant has a right to privacy.

4.0 Findings and Discussion

Four themes emerged from the data collected on the experiences and perceptions of informal female traders and key informants on the way in which MTN MOMO service contributed to the livelihoods of informal female traders, and are discussed next. The themes also include challenges associated with the use of MTN MOMO.

4.1 MTN MOMO as a Source of Convenience for Informal Female Traders

MTN MOMO brings the much-needed convenience to the livelihoods of informal female traders. It enables the informal female traders to perform financial transactions instantly, for example, by sending and receiving money using their mobile phone. This is important for informal female traders to save time, to reduce costs of travelling to and from banks, and to trade in a cash-strapped economy. Commenting on the way in which the MTN MOMO facility boosts convenience in her own case, Participant 1 recounted: MTN MOMO also allows me to pay my landlord's rent without having to travel to his location or bank to queue and pay into his account. This permits me to save money that I would have spent on transportation otherwise. In addition, if I run out of power at night, I just use MTN MOMO to purchase electricity tokens. When my mother or child becomes ill while I am abroad, I may simply send money using MTN MOMO to get medication.” Participant 4 shares these sentiments during the focus group discussion:

“Also, we no longer need to pay money via bus drivers, which was not only expensive but also unsafe. We now send money while sitting at our workstations and transacting with our customers.” Key informant 3 also commented: “The MTN MOMO service has enabled informal female traders to purchase airtime on an individual basis using their mobile phones. This cuts down on downtime. When they want to communicate for business purposes, they are no longer required to leave their jobs to look for airtime recharge cards.”

Participant 6 showed how MTN MOMO brought convenience in a cash-strapped economy when she said: “Nowadays cash is very scarce in Ghana so our customers pay for the goods that they buy from us using MTN MOMO.” This resonates with the sentiments of Key Informant 1 who said: “MTN MOMO makes it easy for informal female traders to take soft loans and pay back after a while.”

In the literature, there is a wealth of evidence supporting the beneficial effects of mobile money platforms like MTN MOMO on the lives of female informal traders in underdeveloped nations. According to a World Bank (2012) study, mobile money services have the potential to increase financial inclusion by giving previously unaffiliated individuals and small companies access to formal financial services, these findings are supported by (Balachandran and Hernandez, 2021 and Bengoa, et al. 2020).

According to Keeley and Tiwari, (2016), that due to issues including poverty, illiteracy, and restricted access to financial infrastructure, women in developing nations, who are frequently excluded from traditional financial services, have been proven to particularly benefit from mobile money platforms Mobile money services like MTN MOMO. This research found out that this can assist in empowering women, boosting their economic involvement, and enhancing their standard of living by offering a practical and accessible platform for financial transactions through TAM (Davies, 2016).

The comments provided by the participants in the focus group discussions and user interviews in the case of Ghana are consistent with these conclusions. It has been demonstrated that the ability to conduct financial transactions through MTN MOMO makes the lives of informal female traders more convenient and effective by enabling them to save time and money on tasks like sending and receiving money, paying bills, buying electricity tokens, and purchasing airtime.

Additionally, the ability to accept payments through MTN MOMO has enabled informal female traders to carry on with their businesses and support their families despite challenging financial

conditions like a cash-strapped economy (World Bank, 2022). This is consistent with research by Jack et al. (2018), who found that mobile money platforms can significantly contribute to economic growth in developing nations by facilitating access to financial services for people and small businesses that would otherwise be shut out of the formal financial system.

Finally, yet importantly, the availability of soft loans through MTN MOMO has provided informal female traders with the financial flexibility they require to expand their companies and enhance their standard of living (Bruton, Zahra, and Cai, 2017). This is in line with research by Beck et al. (2011), which demonstrated the importance of access to money in fostering economic development and eradicating poverty, particularly for women in developing nations (World Bank, 2022). The MTN MOMO's beneficial effects on the earnings of female informal merchants in Ghana are consistent with a larger body of research on the advantages of mobile money services for financial inclusion and economic growth in developing nations.

4.2 MTN MOMO as a Depository for Saving Informal Female Traders' Income

Given that they do not have access to traditional banking facilities, the informal female traders claimed that MTN MOMO makes it simpler for them to save their earnings. Maintaining funds in an electronic account enables informal female traders to cut back on wasteful purchases, accumulate enough capital to develop their methods of subsistence, and protect their way of life in case of catastrophes. Participant 4 commented on how MTN MOMO assists her in saving money, saying: "MTN MOMO also assists me in saving my money." It works similarly to my savings account. I occasionally have 200 GHC or more in my MTN MOMO account, and I take

care not to spend it needlessly. In the similar vein, focus group participant number three stated, "When my firm faces financial issues, I solve them using my MTN MOMO savings." Additionally, I use the savings to grow the company.

Key informants discussed how MTN MOMO is enabling women to save money together for the success of their livelihood strategies in addition to the opinions of the informal female traders. Therefore, I can assert that MTN MOMO is promoting a saving culture among informal female traders, as attested to by Key Informant No. 3. They can use the money to expand their enterprises by reinvesting it there. Because everyone can keep an eye on the transactions and check the balance of their group account, it is transparent.

These results are consistent with the research of academics like Klapper and Simanjuntak (2017), who discovered that access to financial services, like mobile banking, can encourage those who are underserved by conventional banking institutions to save more money. Other researchers discovered that mobile banking broadens financial services' accessibility and may encourage increased savings and investment, which would boost economic growth (Chang, 2023). The concept of group-based savings and credit programs, which have been found to improve savings and financial inclusion for excluded populations, is also aligned with MTN MOMO's group savings function. A study by Kessy, et. al., (2015) found that group-based savings and credit programs have been successful in boosting women's financial inclusion and encouraging entrepreneurship because they give people a place to share risks and build social capital.

Overall, the use of MTN MOMO as a savings repository by informal female traders emphasizes the significance of digital financial services in fostering financial inclusion and enhancing the

saving habits of underserved groups. Mobile banking can give people the means to save money, make investments, and engage in the formal economy, even if they do not have access to traditional financial services, (Klapper and Simanjuntak, 2017).

4.3 High Cost of Transacting

Some informal women merchants cannot make ends meet due to the high cost of transactions on MTN MOMO. The price is based on a combination of electronic transaction tax 1.75% of each transaction and MTN MOMO fees applied. Owing to the high cost of transacting, some informal female traders find it difficult to agree with their consumers and suppliers on the price of goods and services and this slows down the rate at which they deal. The difficulty also causes several price points for the same product, which terrifies potential buyers. “Using MTN MOMO in my business is difficult because of the high prices and the recently increased government fees”, said Participant 15. “I’ve found that some MTN MOMO agents will add a fee of roughly one percent to my withdrawal total.” In a similar vein, Focus Group Member 7 shared, “When I need Ghc200 cash from MTN MOMO agents, they urge me to send a total of 202 because of the rates.” According to Key Informant 1, “the informal female traders are subject to taxes and fees from both the government and the MTN “MOMO service providers in the form of tariffs and transactional taxes, respectively.

Many informal female trader who engage in informal trading are concerned about the high cost of using MTN MOMO. The high transaction costs are a combination of telecommunications company charges and a 1.7% electronic transaction tax imposed by the government of Ghana on

all online purchases made within the country (Participant 15, Participant 7, Key Informant 1). As a result, it is more challenging for informal female merchants to reach an agreement with their consumers and suppliers on the price of goods and services, which has led to the proliferation of price tiers for the same commodity, which has the effect of driving customers away (Participant 15).

The high cost of transactions is not unique to Ghana; it has been cited as a concern in other nations where mobile money is widely used. The African Development Bank (2020) found that the high cost of transacting via mobile money systems can impair the affordability and accessibility to financial services for low-income individuals and small companies. Potential for financial inclusion may be hampered as a result of lower utilization.

Consistent with other research on barriers to financial inclusion for women in the informal economy, the results of this study confirm these hypotheses. For instance, Nkomazi and Taasingana (2018) observed that informal traders in Sub-Saharan Africa face significant barriers to financial inclusion due to the high cost of financial services and restricted access to formal financial institutions. Increased financial inclusion and security for informal women merchants can be achieved through a partnership between the government and mobile network carriers to reduce the high cost of mobile money transactions..

4.4 Low Levels of Digital Literacy

Some informal female traders' limited digital literacy limits their capacity to efficiently use the MTN MOMO facility when conducting livelihood activities. Some of the merchants are vulnerable to dishonest clients who defraud them when they are transacting. The difficulty prevents the traders from utilizing all of MTN MOMO's facilities, such as the savings account. Participant 12 commented on the issue of low levels of computer or mobile phone utility literacy and thought: “It is also easy for some clients to scam us as women when we are selling our things. Some clients would make up sending money to my account when I first started using the MTN MOMO service.”

In the focus group discussion, participant 2 noted the following: “It seems that women tend to lag behind in the use of electronic tools, and some young people take advantage of us and steal from us.” This issue was also reinforced by Key Informant 3, “Low literacy levels are one of the difficulties that informal female traders encounter when utilizing the MTN MOMO facility. This is mostly due to the fact that certain informal female traders find it difficult to use our mobile money facility”

Low digital literacy among female informal merchants is a problem that has been extensively investigated in numerous studies. Low levels of digital literacy are a significant obstacle to the use of digital financial services among small-scale traders, especially women, claims a World Bank report published in 2019. This is due to the fact that individuals frequently lack the fundamental abilities and information necessary to use online financial services like MTN MOMO.

Similar to this, a study published in the (UNCDF, 2020) discovered that women entrepreneurs with low levels of digital literacy might find it challenging to use digital financial services, which

may hinder their ability to manage their money and expand their businesses. According to the study's findings, there is a need for educational initiatives that specifically target female entrepreneurs and raise their level of digital literacy.

A report from the United Nations Capital Development Fund (UNCDF, 2020) also stresses the significance of addressing low levels of digital literacy in order to promote financial inclusion for female entrepreneurs. According to the study, increasing the digital literacy of women business owners will enable them to access financial services more easily and use them wisely for their daily activities. The inability of informal female merchants to properly use digital financial services like MTN MOMO for their livelihood operations is a significant barrier that needs to be solved in order to enhance their financial inclusion.

5.0 Conclusion and Recommendations

The findings of the study highlight the critical role that MTN MOMO plays in supporting the livelihoods of informal female traders in Ghana. The mobile money platform facilitates instant financial transactions and provides a platform for electronic commerce, allowing these traders to operate in a cash-strapped economy. Additionally, MTN MOMO provides a savings and investment tool, improving the financial stability and resilience of these traders, who may not have access to traditional banking services.

The study also identifies challenges associated with the use of MTN MOMO by informal female traders, including high transaction costs due to taxes levied by the government and unofficial tariffs imposed by MTN MOMO agents, as well as low levels of digital literacy, which can limit the full utilization of the platform's services and expose traders to the risk of exploitation.

In light of these findings, developmental social workers can play a role in advocating for policies and regulations that support the livelihoods of informal female traders, including the reduction of transaction costs, promotion of digital literacy skills, and regulations to ensure that MTN MOMO agents do not exploit their clients. Developmental social workers may also work to integrate digital literacy skills into education curricula, making it a mandatory subject from primary to tertiary education levels, and engage with MTN MOMO service providers to support the development of training programs to improve digital literacy. Overall, the study provides evidence for the potential of technology-driven social enterprises, such as MTN MOMO, to support the livelihoods of marginalized populations and highlights the need for a comprehensive approach to enhancing financial inclusion and economic growth.

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