



# Mobile Money Services and the Income-Earning of Women Second-hand Cloth Entrepreneurs in Dodoma City

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## ABSTRACT

The diffusion of mobile money technology has changed the financial landscape across countries in Sub-Saharan Africa, including Tanzania. Women entrepreneurs can use mobile money services to improve business performance by increasing income earning. The study adopted a capability approach to investigate the effect of mobile money services on the income-earning of women's second-hand cloth entrepreneurs in Dodoma City. Triangulation mixed method was used to collect both qualitative and quantitative data from Sabasaba and Machinga complexes as big market centers. The research surveyed a total of 50 women second-hand cloth entrepreneurs and interviewed 15 key informants. The quantitative data were analyzed by using both descriptive and inferential statistics with the aid of SPSS while qualitative data used content analysis. The result revealed a significant relationship between mobile money saving and the income-earning of women second-hand cloth entrepreneurs. The findings further show that entrepreneurs use informal help groups for borrowing and bank services transactions as coping strategies for solving the challenges of using mobile money services for income earning. The study recommends the collaboration between regulators, entrepreneurs, and private stakeholders to solve challenges that hinder business efforts of increasing income by using mobile money services.

**Keywords:** Mobile Money Services, Women Entrepreneurs, Second-Hand Clothes Business, Mobile Money Transactions

**JEL Classifications:** O1, O10, O16, O17

## 1. INTRODUCTION

Technology has created opportunities for the socio and economic development of communities in developing countries in several ways (Msoffe and Lwoga, 2019; Talom and Tengeh, 2019). The diffusion of mobile money technology has changed the financial landscape across countries in sub-Saharan Africa, including Tanzania (GSMA, 2022). Mobile money is a service that enables users to access financial services over mobile devices by dialing Unstructured Supplementary Service Data (USSD) codes (Masocha and Dzomonda, 2018). It offers financial services such as deposits, withdrawals, sending and receiving transfers, purchasing bundles, and paying bills (Kim, 2021). In Tanzania, mobile money is provided by network providers such as Vodacom, Tigo, Airtel, etc., and has reached more than 35 million people across the country (TCRA 2021). The service is reported to bridge the financial exclusion gap for the unbanked and foster the

modernization of the informal economy (GSMA, 2022; Pansera and Owen, 2019), thus contributing to the attainment of the Sustainable Development Goals (SDGs) (Klapper et al., 2016). It is a more efficient method of financial transaction because it requires less time and procedures to complete the service at its own safer pace, which means storing money and saving. This is consistent with (Kim, 2021) who argued the unique benefit of mobile money is due to its greater accessibility, ability to readily reach vast populations, wireless connectivity, and extensive network of agents.

Research shows that mobile money services have a positive impact on financial inclusion and the business performance of women entrepreneurs (Kim, 2021). Mararo and Ngahu (2017), pointed out that women entrepreneurs use mobile money services to improve business performance by increasing sales, market share, and profitability. Performance is improved due to

financial functionalities because of the affordability, availability, and convenience nature of mobile money services to simplify entrepreneurial activities (Kim, 2021). This study regards mobile money services in terms of their key functionalities such as mobile money payments, receipts, lending, borrowing, savings, and transfer among women second-hand cloth entrepreneurs, all for implicating income earning in their business processes through digital technology. The income-earning in this study is considered in terms of profit earning, increase in sales, and business growth. Women entrepreneurs can use mobile money to streamline their business activities to save time and costs, transact with suppliers, buy or pay for goods or receive payment. Given such flexibility, transactions can be performed anywhere, anytime, without leaving their business (Kirui and Onyuma, 2015). Women second-hand close entrepreneurs deal with recycling economics by reselling used clothes (Hansen, and Le Zotte, 2019). Considering the nature of this business, it is not a native business; mobile money services would serve as valuable services to facilitate transactions, including importation and even receiving payment from customers.

### 1.1. Research Problem

While research reported varied opportunities for mobile money services in the business performance of women entrepreneurs (GSMA, 2022), the uptake of mobile money services among women in Tanzania is still low. Transaction cost, lack of digital skills, lack of information, network connectivity, and low social-economic status are among the reasons for the low uptake (GSMA, 2022). These would influence entrepreneurial activities and hence jeopardize the income earning of women. There are several studies on the use of mobile money on women entrepreneurs (Masocha and Dzomonda, 2018; Nkwabi and Mboya, 2019). Nevertheless, research devoted to studying the effect of mobile money services on the income of second-hand women entrepreneurs by using a capability approach to understand this contemporary issue is scarce (Donovan, 2012; Adaba et al., 2019; Msoffe and Lwoga, 2019). This research employed the capability approach (Sen, 1993) as a lens to understand the effect of mobile money services on the income earning of women second-hand cloth entrepreneurs in Dodoma, Tanzania. The capability approach is relevant in this research as it fits well to research projects related to ICT4D and innovation such as mobile money (Bass, et al., 2013; Adaba et al., 2019; Kleine, 2010; Msoffe and Lwoga, 2019). In addition, the research focuses on understanding the means used by second-hand cloth women entrepreneurs to utilize the opportunities offered by mobile money to facilitate income earning. In this study, income earning is understood as an increase in sales, improved logistics, business growth, and profitability as well as raising the standard of life. Our motive is to provide a clear analysis and understanding of the effect of this remarkable contemporary financial services innovation on the income earning of women second-hand cloth entrepreneurs in Dodoma city. This research sought to address the following research questions; What is the extent of mobile money use for income earning among women second-hand-cloth entrepreneurs in Dodoma City? What capability factors (mobile money services) influence the income of women second-hand cloth entrepreneurs in Dodoma City? and What are strategies for mitigating mobile money challenges for income earning among women second-hand-cloth entrepreneurs and regulators in Dodoma City?

This research added knowledge to the body of sparse literature about the implications of mobile money transaction costs on entrepreneurship for the financial empowerment of small enterprises. The research also contributes to knowledge on mobile money transaction costs that is friendly to low-income earners while promoting financial empowerment.

## 2. LITERATURE

### 2.1. Theoretical Review

The study adopted a capability approach study to gain an understanding of factors that can facilitate entrepreneurs' use of mobile money in increasing their income. The approach was pioneered by an Economist philosopher Amartya Sen in 1993. The approach is used in a wide range of fields, most prominently in welfare economics among others. The core characteristics of the approach are the focus on what people can do and to be based on their capabilities. It posits that policies should focus on what people can do and should remove obstacles. This is because between the means and the ends only the ends of what can be achieved are more important and the means are instrumental in achieving improved well-being. Thus, the ends of well-being should be conceptualized in terms of people's capabilities to function, meaning having effective opportunities to undertake actions and activities they want to engage in to be who they want to be. Some of these capabilities consist of financial resources and economic production (Robeyns, 2005).

The Capability Approach is applicable in this proposed study since the study is studying the effects of Mobile Money services on the income of women second-hand entrepreneurs. The study assumes that mobile money services are used as a means to enable women to become what they are by improving their income and well-being in general through digital technology. The capabilities in this study were the use of mobile money services to access financial resources and actively engage in economic production (entrepreneurship) to earn income to improve the well-being of women entrepreneurs. As the approach emphasizes the policy implication of removing obstacles toward improving well-being; it is believed that the findings of this study will highlight challenges that entrepreneurs face as they use mobile money services to improve their well-being. Such findings can be taken on board for improving technological innovation/use policies.

### 2.2. Empirical Review

In the contemporary global economy, the lives of people have been transformed by the development of Information and Communication Technology (ICT), mobile money technology inclusive, in entrepreneurship (Aron, 2018). Although there are several empirical studies on the economy of mobile money and its use, the implication of mobile money use to some of the marginalized groups, particularly in entrepreneurship is not well established (Aron, 2018). Globally, the GSMA report of 2022 indicated a general increase in mobile money use in terms of volume, value, and merchant activity (Andersson-Manjang et al., 2021). The report indicated the growth of mobile money merchant payments by 43% in 2020 compared to 28% in 2018, hence over \$2.3 billion in transactions per month in 2020. It is also pointed

out by Bayar et al. (2021) that in European Countries, mobile phone technologies are preferably used by individuals and groups regardless of their gender, age, and social isolation and they have become useful in financial empowerment. Countries like Hungary, Latvia, Lithuania, Poland, and Slovenia, where mobile money was found to have a significant positive influence through financial inclusion and empowerment (Bayar et al., 2021) implying a positive influence of mobile money use on income.

In developing countries, the use of mobile money services including in entrepreneurship is considered to be more suitable since the use of formal banks involves traveling a significant distance and requires literacy, documentation, and high transaction costs (Poiret, 2016; Mustafa et al., 2019). It is reported by GSMA, (2022) that among the many emerging technologies, mobile money is one of the most popular and extensively adopted by many developing countries in Africa inclusive. Several studies reveal the successful use of mobile money in entrepreneurship to the general population of Africa and women in particular. For example, in Pakistan, women entrepreneurs despite having low education, limited mobility, and overwhelming domestic responsibilities; have used mobile money to set up successful businesses and make multiple fixed payments (Mustapha et al., 2019). In rural parts of Africa, the majority of people agree that mobile money is a replacement for banking transactions as it is cost-effective and a useful means of financial management (Akinyemi and Mushunje, 2020). This implies that it is more acceptable even on entrepreneurship grounds as it can facilitate more income.

Concerning East Africa, examples drawn from Kenya and Uganda revealed that the use of mobile money in entrepreneurship reported by Akinyemi and Mushunje (2020) that the adoption of mobile money use is positively associated with entrepreneurship in general. It is also significantly positively associated with entrepreneurship for women and rural residents. Likewise, Kim (2021) observed that in Nairobi, women had become able to access financial services much more freely than in the past due to mobile money which partly contributed to their financial empowerment.

The usage of mobile money services in Tanzania has contributed to business growth among Small and Medium Enterprises (SMEs) in Kinondoni – Dar es Salaam, by speeding up transaction processes (Chale and Mbamba, 2015). Concerning Dodoma, the capital city of Tanzania, the majority of SMEs have realized the importance of using mobile financial services in their daily services due to their easy accessibility and less expense compared to bank services (Majani, 2020). Thus, the use of mobile money is highly associated with higher probabilities of entrepreneurship in Tanzania (Koomson, 2021) whereas Dodoma is inclusive.

Generally, the empirical literature review has indicated that studies on the importance of mobile money technology on business growth, financial inclusion, and empowerment have been extensively conducted in different parts of the world. Moreover, studies have been conducted to relate mobile money use and entrepreneurship growth. However, studies that specifically focused on the implications of mobile money services to the income of women who are second-hand cloth entrepreneurs in

developing countries, Tanzania and Dodoma City in specific, have received relatively limited attention. This study is geared towards bridging that knowledge gap.

### 2.3. Conceptual Framework

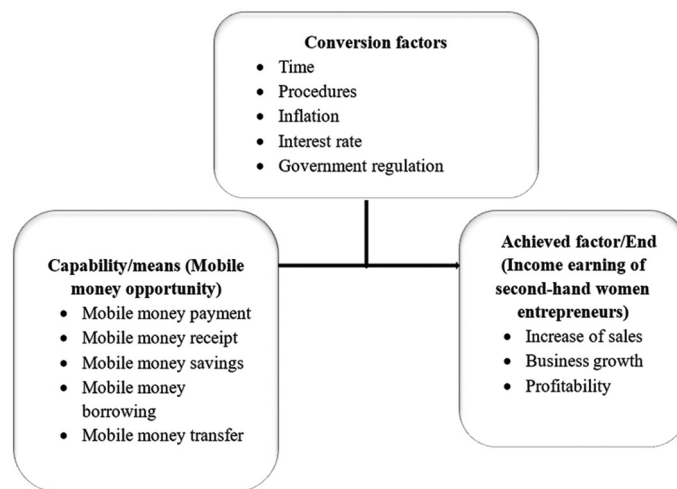
The conceptual framework for this study was built for the theoretical literature review (The Capability Approach) and the empirical literature review. Theoretically, the independent variable is the capability translated as mobile phone services in this study. Accordingly, mobile money services are adopted as a means/capability by second-hand cloth women entrepreneurs to increase their income and improve their well-being (Robeyns, 2005). Such services are reflected in empirical studies to include mobile money payments, receiving and sending money, borrowing, transferring as well as saving money (Kim, 2021). Empirically, the dependent variable, this study assumes that the end desire or the outcome of women second-hand cloth entrepreneurs is to attain improved well-being translated as income by making use of mobile money services. The empirical literature has revealed that the use of mobile money stands a greater chance to lead to financial empowerment such as increasing the income of entrepreneurs in different parts of the World and East Africa in particular (Koomson, 2022). Therefore, there is a direct relationship between the use of mobile money services and entrepreneurs’ income. However, there can be other intervening factors that can influence the income of entrepreneurs such as government policies and regulations, time taken, procedures, inflation rates as well as interest rates (Figure 1).

## 3. METHODS

### 3.1. Study Area

Mobile money has emerged as a promising tool in business, social and economic development. Considering this diffusion, mobile money services would potentially address the financial exclusion rate reported to increase in Dodoma (Finscope, 2017). This financial exclusion rate may negatively affect income earnings for many people including women’s second-hand cloth entrepreneurs in Dodoma. This has made Dodoma city a relevant location for

**Figure 1:** Conceptual framework constructed by using different sources: (Capability Approach by Sen in 1993; cited in Robeyns, 2005; and empirical literature Review Kim, 2021; Koomson, 2022).



this research to investigate the effect of mobile money services on the income earning of women's second-hand cloth entrepreneurs in Dodoma City. Thus, the research would be able to understand how mobile money services affect the income earning of women second-hand cloth entrepreneurs in Dodoma. Moreover, the study location is relevant since it serves as a new capital city of the country where the government invests in most of the large projects and locates its central government offices such as Ministries. This makes Dodoma become a vibrant and growing city with a significant influx of entrepreneurs from different parts of the country who are interested in becoming entrepreneurs. Also, about five (5) higher learning institutions are located at the heart of the city, hosting most graduates who opt to engage in small business entrepreneurship while seeking employment opportunities.

### 3.2. Research Design

Triangulation mixed research design was used to address the effect of mobile money services on the income earning of women second-hand clothes entrepreneurs in Dodoma. The study used concurrent research design, and it is suitable to facilitate the collection of both qualitative and quantitative data at the same time. The research was selected to collect qualitative and quantitative data to bring together the strengths of the two forms of data to ensure consistency, validity, and trustworthiness of the research. This research survey was used to assess the capability approach that regards mobile money services as a means or capability that would influence income earning as an outcome or achieved functions in the presence of conversion factors like government levy. On the other hand, qualitative data were collected by using the interview to explore strategies employed to mitigate challenges of income earning concerning mobile money services among women second-hand-cloth entrepreneurs and regulators in Dodoma.

### 3.3. Sampling Procedures

Survey method employed 50 women entrepreneurs who engage in second-hand cloth entrepreneurship in Sabasaba and Machinga complex Markets in Dodoma City. These markets were selected based on their popularity in selling second-hand cloth located at the heart of the city. The sample size is computed through the Yamane formula out of 75 total populations of women second-hand cloth entrepreneurs in the two markets. Simple random sampling techniques were used to select women entrepreneurs who engage in second-hand-cloth entrepreneurs at their business points. Since every woman entrepreneur has an equal chance to participate in the study, the researcher visited women entrepreneurs at their business points while picking them randomly for a survey.

### 3.4. Data Collection

Qualitative data was collected by using interviews to explore strategies employed to mitigate challenges of income earning using mobile money services among women second-hand-cloth entrepreneurs and regulators in Dodoma. On the other hand, quantitative data were collected by using surveys to assess the extent of mobile money services uses among women second-hand cloth entrepreneurs in Dodoma as well as the capability factors affecting the use of mobile money services on the income earned by this user group. About 15 key informants were interviewed to understand how the mobile money service transaction cost

affects business operations among women second-hand-cloth entrepreneurs, and examine the coping strategies put forward to mitigate the challenge of the mobile money services transaction cost among women second-hand-cloth entrepreneurs. Key informants for interviews included leaders of the women second-hand-cloth entrepreneurs, mobile money agents, and government regulators Tanzania revenue authority (TRA) and Tanzania communication regulatory authority (TCRA) were selected based on their leadership position and or experience. The study considers TRA officials as more knowledgeable in working with the government in revenue collections thus understanding challenges of the mobile money transaction costs and therefore can suggest strategies to mitigate the challenges. On the other hand, TCRA officials are regarded as key informants since they are the main regulators of digital communication across the entire country, thus are more knowledgeable on digital transactions matters. Also, mobile money agents are regarded as a more experienced category of respondents in working with mobile money transactions more frequently and thus understand citizens' complaints regarding mobile money transaction services hence will be in a position to offer alternative suggestions.

### 3.5. Data Analysis

Qualitative data was analyzed using content analysis. Data regarding the strategies employed to mitigate challenges on income earning concerning mobile money services among women second-hand-clothes entrepreneurs and regulators in Dodoma were qualitatively analyzed. Data recorded during the interview were transcribed then after generating meaning through the identification of codes data were then classified into themes, and patterns for analysis. Regarding quantitative data statistical package for social science (SPSS) version 23, was used as analytical software to analyze the data. Descriptive statistics were used to analyze data on the extent of usage of mobile money services among women second-hand clothes entrepreneurs, such that means, standard deviation, percentages, and frequencies were established, and then data were presented in the form of tables and figures. To assess factors affecting the use of mobile money services on the income earned among women second-hand clothes entrepreneurs, a multivariate linear regression model was adopted because income earning can be influenced positively or negatively by the study variables. The model was presented in the equation below:

$$Y = \beta_0 + \beta_1 MMp + \beta_2 MMr + \beta_3 MMI + \beta_4 MMb + \beta_5 MMs + \beta_6 MMt + \epsilon_i \dots \quad (1)$$

Where by: Y = income earning, MMp=Mobile money payment, MMr =Mobile money receipts, MMI= mobile money lending, MMb= mobile money borrowing, MMs =mobile money savings, MMt = mobile money transfer.

## 4. RESULTS AND DISCUSSION

This section presents the findings and discussions that address the study research questions which include: What is the extent of mobile money use on entrepreneurship among women second-hand-cloth entrepreneurs for income-earning in Dodoma city?

What capability factors (mobile money services) influence the income of women second-hand cloth entrepreneurs in Dodoma city? And what are the strategies for mitigating mobile money challenges for income earning among women second-hand-cloth entrepreneurs and regulators in Dodoma City? This section begins by presenting the demographic profile of respondents and thereafter the findings and the discussion of the research questions.

**4.1. Demographic Profile of Women Second-hand Cloth Entrepreneurs and Business Location**

Findings in Table 1 indicate that the majority of surveyed women second-hand cloth entrepreneurs were aged between 39 and 48 years equal to 37% followed by 29-38 years equal to 33%. This age category translates that the majority of women second-hand cloth entrepreneurs are the youths who are considered to be an economically active group and have responsibilities that trigger their active engagement in income-earning entrepreneurship activities to meet family needs. Regarding education, the majority of respondents had primary (48%) and secondary (48%) education levels while only a few (4%) had a college education. The low level of education (not having attained a college education) is one of the characteristics of informal sector workers in developing countries (Rumanyika et al., 2019). The study was conducted in Dodoma City in which the majority of women entrepreneurs who engaged in a survey were 58% from the Machinga Complex and 42% from the Sabasaba Market. The high number of women second-hand cloth entrepreneurs at the Machinga Complex is attributed to government relocation and re-arranging of small entrepreneurs from different parts of Dodoma City to the Machinga Complex.

Regarding experience, the majority (70%) of second-hand cloth women entrepreneurs had experience of up to five years while few (30%) had experience of up to 10 years in selling second-hand clothes.

**4.2. The Extent of Mobile Money Use for Income Earning Among Women Second-Hand Cloth Entrepreneurs**

This sub-section presents the findings and the discussion of the first research question on the extent of mobile money use for income earning among women second-hand-cloth entrepreneurs in Dodoma City as follows;

**4.2.1. The use of mobile money services by women second-hand cloth entrepreneurs in business**

The respondents were first asked to identify the mobile money companies that they used in second-hand cloth businesses. Findings in Table 2 indicate that Vodacom (M-Pesa) was the leading mobile money company registered by the majority (42.2%) of women second-hand cloth entrepreneurs, followed by Tigo (Tigo-Pesa) which is 31.5%, and the lowest was Halotel (Halo-Pesa) 9.8%. This finding implied further that the Vodacom network is more used because it is more known by the majority since M-Pesa mobile money service was the first mobile network introduced in Tanzania, and it has more reliable services and has gained trust for entrepreneurial use. Also, it implies that Vodacom company offers more reliable network connections for business purposes in terms of mobile money services than other mobile

service company providers. Similar results were reported by Jessica (2015) that in Kenya, M-Pesa is a visible brand throughout Kenya from rural areas to urban.

Moreover, the respondents were also asked how often they used mobile money services for business transactions. The study findings in Figure 2 show that 34% of women second-hand cloth entrepreneurs rarely use mobile money services for business transactions while 30% use mobile money services weekly. Such minimal use suggests that mobile money services for women second-hand cloth entrepreneurs may lower their income earnings due to transaction charges. A similar finding has been reported by Kapinga et al. (2021) that in Iringa, women entrepreneurs do not make much use of mobile money transactions in business, which draw attention to understanding the matter through research. It was established by Chakombo et al. (2018) and GSMA (2022) that high transaction charges, low social-economic status, and lack of digital skills limit the uptake of mobile money services among women in Tanzania.

**Table 1: Demographic profile of women second-hand cloth entrepreneurs**

Variable	Frequency	Percent
Age		
18-28	12	24
29-38	16	32
39-48	19	38
49-58	3	6
Education		
Primary	24	48
Secondary	24	48
College	3	4
Location		
Machinga complex	29	58
Sabasaba	21	42

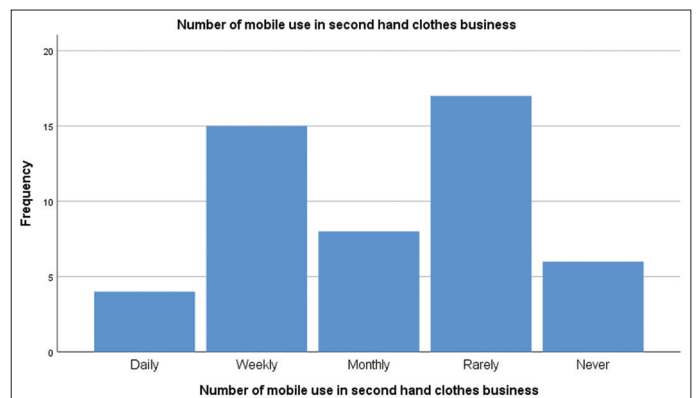
Source: Field data, 2022

**Table 2: Choice of a mobile company**

Variable	Frequency	Percent
Tigo	29	31.5
Vodacom	39	42.4
Airtel	15	16
Halotel	9	9.8

Source: Field data, 2022.

**Figure 2: Frequency of mobile money services used**



Source: Field data 2022

**4.2.2. Estimated value of mobile money transactions carried out by women second-hand cloth entrepreneurs in a day/week/month**

The study sought to find out about the value of money that women second-hand cloth entrepreneurs carry out in a day/week/month. Findings in Figure 3 revealed that the majority (70%) of second-hand cloth women entrepreneurs transact below 1,000,000 TZS within a month which is equal to \$421 USD. This amount is minimal and reflects the life status of the majority of informal traders in Tanzania. The low transaction also implies a limited income-earning of women second-hand entrepreneurs through mobile money services. This finding was also supported by one of the key informants that “transactions performed by the majority of women second-hand cloth entrepreneurs are very small; on average they transact not more than 1,000,000 TZS in a month” This statement implies that there are limiting factors that hinder women’s second-hand cloth to make full use of mobile money services in their businesses. For example, as it was revealed by Kapinga and Montero (2017), Anord (2020), and Kim (2021) that there are high transaction costs in mobile money services that undermine women’s income earning and financial inclusion. Likewise, GSMA (2022) reported that Tanzanians are turning away from the use of mobile money services due to high transaction costs which can be taken as a lesson for mobile money service provider.

**4.2.3. Capability factors of mobile money services that influence the income earning of women second-hand cloth entrepreneurs in Dodoma city**

This sub-section presents findings and the discussion regarding the capability factors (mobile money services) that influence the income-earning of women second-hand cloth entrepreneurs in Dodoma city. The findings and their discussion are as follows;

**4.2.4. Reason for the use of mobile money services by women Second-hand cloth entrepreneurs**

When respondents were asked about the reasons for the use of mobile money services for income earning in businesses, the findings, as indicated in Table 3, show that the major reasons for the use of mobile money services among women second-hand cloth entrepreneurs were accessibility 82%, time-saving 72%, and the least reason was the digital skills required for mobile money service provider (44%).

These findings imply that respondents have trust in the Vodacom Company in mobile money service provision since it has a close link to their business thus building financial inclusion among users. In support of this finding, interviews with key informants revealed that accessibility is a major concern for *women second-hand cloth entrepreneurs* to use mobile money services in their businesses because it is connected to income-earning goals. Typically, one of the key informants, from Sabasaba Market stated, “*accessibility of mobile money services provides alternative means of doing business in buying and selling second-hand clothes rather than that of man-to-man business.*” This finding concurs with that of Njele and Phiri (2021) who observed affordability motivates users to adopt mobile money services and contribute towards financial inclusion. Similarly, Mlindoko (2022) found out that accessibility has a positive significant association with

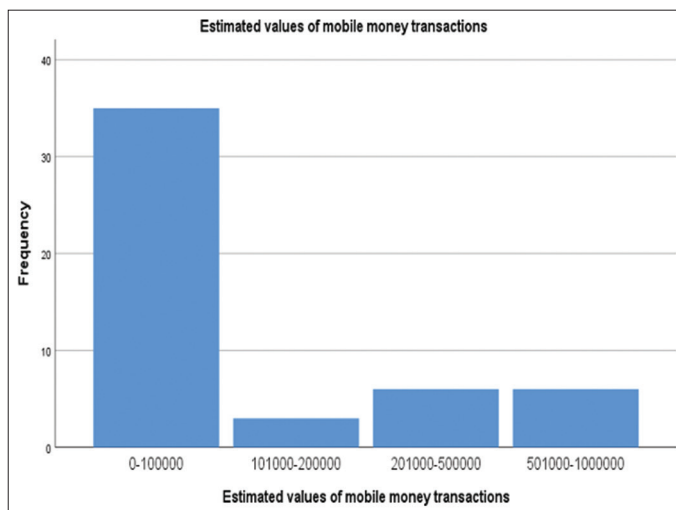
small business performance in Iringa, Tanzania. Thus, women second-hand cloth entrepreneurs preferably make use of mobile money services depending on the factors that help them increase their business income. Furthermore, Kirui (2016) noted that the majority of small business owners can adopt the use of mobile money services because of their affordability the context which is closely linked to accessibility. Likewise, Kim, (2021) noted that greater accessibility of mobile money services readily reaches vast populations due to an extensive network of agents.

**4.2.5. Mobile money functions that women perform for the second-hand cloth business**

Respondents of the study were also asked to identify the mobile money services which they used most. The study findings show that the majority 27% of women second-hand cloth entrepreneurs uses mobile money service for saving their business earnings, followed by borrowing 17.8%, withdrawing 15.6%, and transferring 11.7% as illustrated in Table 3 as illustrated in Table 4.

Findings, as indicated in Table 4, reveal that women second-hand cloth entrepreneurs save on their mobile money accounts to refrain from charges for using other banking services and thus prefer mobile money saving. This finding implies that second-hand cloth women entrepreneurs prefer to use mobile money service that is not charged. This also reflects insufficient women’s income to cover mobile money charges. It further suggests the majority of low-income earners like women second-hand cloth entrepreneurs have

**Figure 3:** Estimated value of mobile money services used



Source: Field data 2022

**Table 3: Determinants of mobile money services use**

Variable	N	Percent	Percent in case
Accessibility	41	14.0	82.0
Time-saving	36	12.3	72.0
Security	28	9.6	56.0
Popularity	31	10.6	62.0
Fewer procedures	25	8.5	50.0
Digital skills	22	7.5	44.0
Inflation	24	8.2	48.0
Government regulations	26	8.9	52.0
Total	293	100.0	586.0

Source: Field data 2022

no bank account and thus use mobile money accounts as a Bank alternative. A similar finding by Mishra (2014) who suggests that mobile money microcredit platform allows people to save money which is also revealed in this study. This mobile money-saving option reflects the need for a government policy that supports financial inclusiveness for low-income earners such as women who sell second-hand clothes. A similar observation was made by GSMA (2022) that the introduction of charges to mobile money services may influence low-income earners to revert to cash payment options while losing wider benefits such as mobile money-saving services. Further, Table 3 revealed that mobile money withdraws, payment and transfer services were minimally used. This again reflects unfavorable transaction costs which made women second-hand cloth entrepreneurs to opt for alternative means such as the use of cash.

**4.2.6. Capability of mobile money services on income-earning**

The study also assessed a means by which mobile money services facilitate income earning among women second-hand cloth entrepreneurs in Dodoma City. The capabilities of mobile money services are tested in terms of mobile money payment, receipt, withdrawal, transfer, borrowing, and saving over the income-earning measured in terms of profitability, an increase in sales, and business growth as dependent variables. The study applies the multiple regression model and the results are presented in Table 5. The results of this study are ideal based on the fitness of the model, such that the R-square is valued and indicates that the independent variables significantly explain the current dependent variable by 64%. This implies that the selected multiple regression model fits to estimate the influence of mobile money services on income earning as per this study.

The finding in Table 5 shows that mobile money-saving capability positively influences the income earning of women second-hand cloth entrepreneurs. This is evidenced by the coefficient of saving being 0.745, meaning that one unit increase in saving could increase the income earning of women second-hand cloth entrepreneurs by

7.45% which consequently deepen financial inclusion and alleviate poverty. This finding suggests that higher savings increase the capability of investment which in turn increases income earned from selling second-hand clothes. Similarly, the study by Bosire and Ntale (2018) notes that mobile money services can convert a mobile phone into a mobile wallet which provides security and convenience to the banked and unbanked SMEs in the informal sector. Therefore, mobile money services are the key platform for saving service among informal business entrepreneurs such as women’s who sell second-hand clothes.

**4.3. Coping Strategies to Address the Mobile Money Service Challenges among Women Second-hand-cloth Entrepreneurs**

This subsection addressed the coping strategies for the challenges of using mobile money services among women second-hand cloth entrepreneurs.

**4.3.1. Challenges facing women second-cloth entrepreneurs face in using mobile money services**

The study found that there are a number of challenges that women second-cloth entrepreneurs face on using mobile money services. Such challenges include high transaction rates, fraud, and insecurity followed by a lack of digital skills. Among the mentioned challenges, the income earning of women was more affected by high transaction rates because a single transaction encounters several charges which are also very high. For example, during an interview one participant said “A single transaction is charged during deposit, transfer, and withdrawal; this decreases the value of our capital.” This finding implies that imposing several charges on a single mobile money service reduces profit and consequently affects income and business growth.

Another challenge that women second-hand cloth entrepreneurs face in using mobile money services is systems fraud and insecurity. This happens when the user mistakenly sends money to the wrong number, which becomes difficult to recover. For example, in an interview, one of the respondents mentioned that “I once send money through Mpesa to the wrong recipient, I called the Vodacom customer service provider and they promised to recover it in 48 hours. However, until today even after several follow-up efforts, my money is not yet returned”. This finding implies that there is a risk of entrepreneurs losing money when they accidentally post the money to the wrong account while using mobile money services; in turn, negatively affects their business income. A similar finding was revealed by Ali et al. (2020) that in Uganda, there are significant challenges in the use of mobile money services such as identity

**Table 4: Mobile money functions performed**

Variable	n	Percent	Percent of cases
Mobile money payment	21	11.9	49.0
Mobile money receipt	25	15.9	53.0
Mobile money transfer	21	11.7	42.9
Mobile money savings	45	27.2	100.0
Mobile money borrowing	32	17.8	65.3
Mobile money withdraws	28	15.6	57.1
Total	180	100.0	36.3

Source: Field data, 2022

**Table 5: Capability of mobile money services in income earning of second-hand clothes women entrepreneurs**

Variable	Unstandardized coefficients		Standardized coefficient		
	Coefficient	SE	Beta	t-value	Sig.
(Constant)	2.010	0.220		9.115	0.000
Mobile money payment	0.038	0.088	-0.121	-0.427	0.087
Mobile money receipt	0.445	0.066	-0.116	1.678	0.050
Mobile money borrowing	0.543	0.076	0.115	2.560	0.020
Mobile money saving	0.745	0.075	-0.129	2.920	0.000
Mobile money transfer on business growth	0.057	0.115	-0.192	-0.495	0.323

\*Dependent variable = Income earning (increase of sales, business growth and increase of profit); R<sup>2</sup> = 64%. Source: Field data, 2022

theft, PIN sharing, and agent-driven fraud. Likewise, Kamande et al. (2021) noted that there is a challenge of insecurity to the use of mobile money services particularly for the illiterate. Lack of digital skills was revealed to be another challenge that affects most of the income earning of women second-hand cloth entrepreneurs via the use of mobile money services. This is because the majority do not possess enough digital skills in money transferring, ordering, and payment of products. For instance, one participant revealed that “most of us cannot use the “pay by number” service which is affordable compared to other mobile money services”. This finding implies that instead of ordering and selling products through mobile money services they had to incur transportation costs for physical visitations which is inconvenient and adds more costs thus reducing income earned. A similar observation was reported by GSMA (2020) that only 35% of women use mobile money services in Sub-Saharan Africa due to a lack of skills. Also, Kawimbe et al 2022 revealed that the knowledge gap existing among people regarding the benefits of mobile service is a barrier to entrepreneurs.

#### *4.3.2. The proposed coping strategies to address the challenge of mobile money services among women second-hand-cloth entrepreneurs*

Interviewees were also asked their opinions about the alternative ways that second-hand women entrepreneurs should adopt to avoid mobile money service challenges that affect their income.

#### *4.3.3. Informal groups for saving and borrowing*

The finding revealed that in order to cope with mobile money services challenges, women second-hand cloth entrepreneurs adopted the use of informal financial groups for saving and borrowing money. During the interview, one participant contented that “most of us belong to more than one informal financial help group which helps us to save our money and borrow at low-interest rates whenever we are in need”. This finding implies that apart from mobile money services, informal financial help groups play an important role in facilitating income earning to most women second-hand cloth entrepreneurs. This finding is in line with Niyonsaba et al. (2022) who established that informal saving and credit organization have been useful in promoting the income of women entrepreneurs.

#### *4.3.4. Bank services for business transaction*

Another coping strategy that women second-hand cloth entrepreneurs used to address the challenge of mobile money services is to opt for bank services. The finding of the study shows that bank transaction services are preferred by women second-hand cloth entrepreneurs because they are more affordable compared to mobile money transaction services. For example, one of the participants said that “when transacting one hundred thousand band charge ranges from one thousand to one thousand three hundred Tanzanian shillings while when transacting the same amount using mobile money services, they charge is two thousand”. This finding implies women second hand cloth entrepreneurs escape mobile money transaction charges since it implicates their business income earning.

#### *4.3.5. Informal luggage collection mobilization*

The finding of the study also revealed that women second-hand cloth entrepreneurs adopted the use of informal mobilization in collecting second-hand luggage whereas few selected participants will travel on behalf of other entrepreneurs as a coping strategy to overcome high mobile money transaction charges. This is because would use less expenses to obtain second-hand cloth for sale from the supplier even when the supplier is in another region. One participant interviewed stated that “...through mobilization we contribute very small amount of money to send a representative to obtain second-hand clothes from the supplier on behalf of us all”. The result means that mobilization releases cost that women second-hand cloth entrepreneurs would incur by using mobile money services, hence does not have much negative effect on their income earning.

#### *4.3.6. Pay by number “lipa namba”*

Further findings indicate that “pay number service” has less transaction charges to effect business income earning compared to mobile. The pay by number service is a special service offered by mobile network providers upon special request thus it is different from the traditional mobile money services. It was reported during interview by one key the informant that “This service is very cheap for entrepreneurs for instance a transaction of one thousand three hundred Tanzanian shillings is charged only one thousand, though mobile agents’ receive nothing from the transaction”. This finding suggests that transaction by pay by number service has prospect on profitability and income earning of women second hand cloth entrepreneurs.

## **5. CONCLUSION AND RECOMMENDATIONS**

### **5.1. Conclusion**

This research provided insights into the effect of mobile money services on the income earning of second-hand cloth women entrepreneurs in Dodoma city. The finding shows saving, borrowing and receipt were the capability factors to the increase of income-earning to women second-hand cloth entrepreneurs. A unit increase in services affects positively income earnings while a unit increase in mobile money transfer negatively affects income earnings. Money saved, borrowed, and received facilitates funding of their business to meet customer needs and hence increase sales and growth. On the other hand, challenges such as high transaction costs, system fraud and insecurities, and lack of digital knowledge affects the use of mobile money services by women entrepreneurs.

### **5.2. Recommendations**

Given the potential of mobile money services to low-income earners like women second-hand cloth entrepreneurs, the study suggests that due to saving, borrowing, and receipt of mobile money services capability demonstrated in the financing, expansion, and increase of sale in second-hand cloth women entrepreneurs; the government is advised to review charges imposed to create enabling women entrepreneurs to utilize more potential opportunity offered by mobile money services. Mobile money companies should sensitize the public regarding the benefit



of mobile money in business growth and potential fraud on mobile money services to minimize business losses resulting from such fraud. The study recommends that the Bank of Tanzania (BOT), Tanzania Communication Regulatory Authority (TCRA), and mobile money companies should incorporate with small and medium entrepreneurs and private stakeholders to solve challenges that hinder business efforts of increasing income by using mobile money services.

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