

## **Effects of Mobile Money Levy on the Performance of Mobile Money agents in Tanzania: Evidence from Mobile Money Agents in Iringa Municipality**

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### **Abstract**

The purpose of this study was to investigate the effects of mobile money levy on the performance of mobile money agents in Tanzania taking evidence from mobile money agents in Iringa Municipality. Specifically, the objectives of the study were: to examine the effect of number of transactions on the performance of mobile money agents; to determine the effect on value of transactions on the performance mobile money agents and to analyze the effect of commission on the performance of mobile money agents. Simple random sampling was used to select 95 mobile money agents in Iringa Municipality. Questionnaire was used as the tool for data collection. Data was analyzed using descriptive and inferential statistics with the help of the Statistical Package for Social Sciences (SPSS) Version 20. The results of the study revealed that, reduction in number of transactions had significant effect on performance of mobile money agents. This is confirmed by 83.9% of the respondents who agreed that introduction of levy had resulted in the reduction in number of transactions which in turn has negatively affected their overall performance. Furthermore, 79.5% of the respondents agreed that mobile money levy effect on value of transactions affected the performance of mobile money agents. Moreover, analysis of the results revealed that commission had significant negative effect on performance of mobile money agents. The study recommends that the government of Tanzania reduce mobile money taxes to stimulate usage of mobile money services which will in turn increase agent network in order to promote financial inclusion and financial depth. It is further recommended that the government review its tax policies in order to avoid policies that constraint financial sector growth and limit employment.

**Key words: Effects, Mobile Money Levy, Mobile Money Agents, Performance**

## **Introduction**

Mobile Money is a term describing electronic financial services performed via a mobile phone (Subia, 2014). Mobile Money services can be broadly categorized in three groups: m-transfers, m-payments and m- financial services. M-transfers involve money transfer from one user to the other normally without any accompanying exchange of goods or services. These are also referred to as person-to-person (P2P) transfers and may be domestic or international (Chale, 2014). M-payments involve money exchange between two users with an accompanying exchange of goods or services. M-financial services are mobile money services in which mobile money may be linked to a bank account to provide the user with a whole range of transactions that they would access at a bank branch. Users access financial-related services like insurance and micro-finance among others via their mobile phones (Chale, 2014).

Likewise, agent distribution network has been at the heart of successful mobile money services. Responsible for converting physical cash to digital value and performing crucial tasks such as on-boarding, supporting and educating millions of customers on a daily basis, mobile money agents represent the face of mobile money services around the world. In 2018, \$136 billion (the total value of cash-in transactions) were digitized by mobile money agents globally. By way of comparison, this is equivalent to more than twice the overall value of international remittances flows to Sub-Saharan Africa the same year (Kaputo, 2019).

Agent networks are the distribution channel that relies on individual entrepreneurs under a franchise-like model in which agents earn commission for every transaction. Agent networks can flourish in areas that support healthy numbers of transactions. In those locales, the transaction fees earned by agents more than compensate for the financial costs and operational burdens of the business (Shalini, 2019). Reductions in the number of transactions for whatever reasons impact negatively the agent network which in turn impacts financial inclusion (Kaputo, 2019).

One of the major areas of regulatory controversy is the taxation of Mobile money services and products. The last few years has seen the emergence of mobile money sector specific taxation across Sub-Saharan Africa largely driven by governments' need to find innovative means to widen the tax base and plug budget spending deficits. Yet structural weaknesses within these environments often lead to badly designed taxes, in part due to a lack of capacity and national policy frameworks to guide at the policy level, with the result that the full impact of mobile money taxes across the whole of the tax system is not properly assessed. Since many mobile money users belong to marginalized societal groups, the negative impact of mobile money tax on financial inclusion and broader development goals is significant (Katusiime, 2021).

Tanzania introduced a levy to be charged on mobile money transfer and withdrawal transactions through the Finance Act 2021, which amended the National Payment Systems Act, 2015 (NPS Act).(PWC, 2021). The levies are independent of the mobile money transfer

taxes which are excise duty (10%) and Value Added Tax (VAT) at 18%. (PWC, 2021). These taxes have an effect on mobile money agents' network. The rather seemingly low cost and ubiquitous financial services are made expensive by the additional taxation. Agents' number and value of cash transactions are likely to decline as well as agents' commissions due to low utilization of mobile money services as a result of increased taxes (GSMA, 2021). Given the accrued importance of mobile money agents in job creation and aiding the financial inclusion agenda, it is important to investigate the extent to which mobile money agents have been affected by new levy in Tanzania by taking a case study of Iringa Municipality.

## **Literature review**

### **Theoretical Literature review**

#### **The Transaction Cost Theory (TCT)**

The transaction cost theory was developed by Ronald Coase in 1937. The theory suggests that markets transactions entails costs which may be reduced if transactions take place within the firm. These costs entail information search, negotiation and decision-making, contracts, supervision, execution, and conversion (Rindfleisch, 2019). It is believed that the transaction costs emerge from the market failure caused by the interaction of various factors of human nature and relevant factors of the trading environment. These interactions make transactions more difficult to occur (Lu, 2021).

The transaction costs are influenced by the number of transactions. A larger frequency of the transactions justifies alternative shifts of consumption patterns (Matins, 2010). Williams (1979) who further developed the Transaction Cost Theory, suggests that buyers and sellers would make price and quantity adjustments in response to changing circumstances in frequently occurring transactions (Rindfleisch, 2019). Consumers will evaluate whether the total transaction cost is optimized for determining whether to adopt or convert their trading behavior. Therefore, increasing transaction costs will negatively impact consumers, while reducing transaction costs will positively impact consumers (Lu, 2021). Transaction costs in terms of fees in mobile money payments have fundamental impact in consumers' choice on the use of mobile money services. This theory suggests that adjusting transaction costs will influence uptake of mobile money services thereby increasing growth of mobile agent networks and financial inclusion

#### **Theory of Reasoned Action (TRA)**

The Theory of Reasoned Action (TRA) was developed by Ajzen and Fishbein in 1980. The theory contends that beliefs influence attitudes and social norms which in turn shape a behavioral intention that ultimately guides or even dictates an individual's behavior (Njenga, 2016). The theory defines attitude as an individual's positive or negative feeling about performing the target behaviour and subjective norms defined as person's perception that most people who are important to him or her think he or she should or should not perform the given behaviour (Bali, 2020).

The theory indicates that individuals have control on whether to perform or not perform a certain behavior. In the context of mobile money transactions, individuals have a choice whether to use the services. The choice of using or not using the mobile money services depends on a number of factors including cost. Rising mobile money costs resulting from mobile money levy in Tanzania negatively affects individual choices on the use of mobile money services.

### **Empirical Literature Review**

Shalini et al (2018), conducted a study on how mobile money agents can expand financial inclusion in Kenya. The researcher interviewed both money agents as well as users of mobile financial services. The findings of the study reveal that agent networks can flourish in areas that support healthy numbers of transactions. It further posits that the transaction fees more than compensate for financial costs and other operational burdens of the business (Shalini, 2019). According to the study, the motivation to set up agent business is dependent upon the expected number of transactions.

Clifford (2020) Conducted a comparative study across four sub-Saharan African countries that have recently proposed a mobile money transaction tax: Uganda, Côte d'Ivoire, Republic of Congo, and Malawi, and attempts to answer two principal questions: What is the motivation behind the proposal of these taxes? What might some of the unintended consequences of these taxes be? Interviewees included stakeholders from the public sector, mobile network operators (MNOs), civil society organizations (CSOs), multilateral organizations and development think tanks. It was found that mobile money has seen a fast adoption in the decade since its emergence, becoming the formal financial service of choice for many underserved groups in developing countries. Its success has attracted the attention of tax authorities seeking to broaden their revenue base. The resulting taxes, especially mobile money transaction taxes, are controversial and incidents of it are increasing. The role that mobile money is playing within the economies is either not fully understood at a policy level or is ignored. There have been accusations of policy copying as countries appear to replicate the policies of others without necessarily following their own established policy processes. The result is often poorly designed taxes whose consequences, both industry and development practitioners fear, have not been fully considered. On the other side, governments and revenue authorities feel that their motives are misunderstood.

Ivan Rivadeneyra, Daniel D. Suthers and Ruben Juarez (2022) conducted a study on Mobile Money networks with tax incentives in Ecuador. The major aim was to determine how agents' behavior responded to tax incentives and measure changes in behavior of agents after the incentives. The study was designed to test the effectiveness of the Ecuadorian government project to encourage the adoption and diffusion of mobile money through tax incentives in the form of a refund into the user's mobile money account. The study used a comprehensive data set of the governments MM project from 2014 to 2017. A regression analysis between economic activity measurements and agent network metrics was run in order to measure

changes in the behaviour of agents after the incentives. The results of the study indicated an increase in the frequency and value of the transactions that users were making before the tax incentive was in place. The study indicates further that there was an increase in the number of agents after the policy. The study show that tax incentives have a positive bearing in the growth of mobile money in spite of the necessity to accurately design the policies in order to increase the chances of the success of such projects

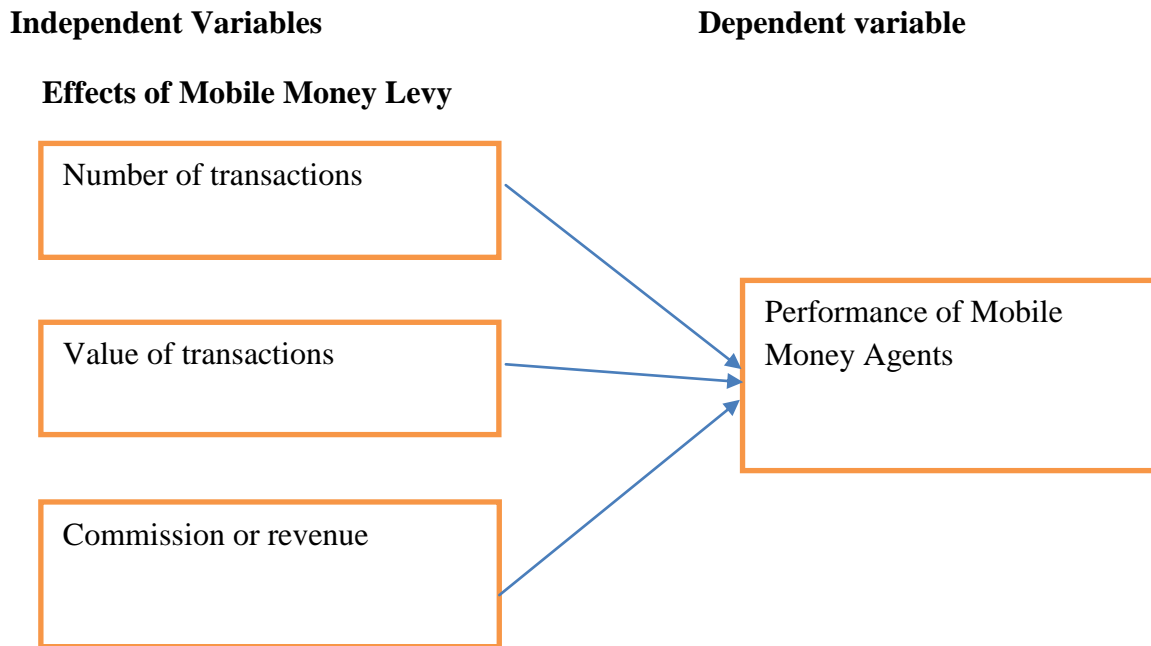
Kihoma (2016) conducted a study on how Mobile money transfer services as a popular service in Tanzania, used to facilitate financial transactions for business activities and family matters. This study investigated and established the contribution of mobile money services in marketing and agricultural products to women, which involve agribusiness. It also analyzed various factors that motivated agribusiness women to use mobile money services in marketing their agricultural products. The study employed a case study design and it was done in Morogoro Municipality in Tanzania. Both qualitative and quantitative from primary and secondary data were used in the study. Primary data were collected from agribusiness women within Morogoro Municipality, Secondary data were collected from network service providers, library and from the internet. Then quantitative data were analyzed by using SPSS program version 20 and qualitative data were analyzed by employing the content analysis. The study identified that the services were used by agribusiness women and age, education, type of business products, capital and type of customer were the factors that motivated agribusiness women to use Mobile Money Transfer services. It was identified that service providers agents' problems, unavailability of network, high transaction cost compared to bank were among the challenges that faced in using mobile money transfer and promotion, time saving, security of their money are among of the advantage's agribusiness women get from using MMT. The findings revealed that due to its potentiality in facilitating money transactions; mobile money transfer service providers should make sure that their services are convenient, affordable and easy to use by their customers.

Mas et al (2013) conducted a study titled, 'Mobile Agents in Tanzania: How Busy, How Exclusive? The study aimed at exploring the situation of M-Pesa agents in Tanzania in terms of number of transactions and profitability and whether they operate only M-Pesa services or have multiple operations. In terms of profitability, the study indicates that most agents were attracted to money agency business because they wanted to make profits in terms of commissions (Mas, 2013). The study indicates that money agents who processed 30 or more transactions per day earned more than those who performed less transactions (Mas, 2013). The reduction in number of customers due to additional transaction costs resulting from taxation is likely to impact profitability of money agents negatively (Gilman, 2016).

### **Conceptual Framework**

For analysis and interpretation purposes, a framework of the relationship between the effects of mobile money levy in terms of number of transactions, value of transactions and commission is presented. Performance of mobile money agents is presented as a dependent variable whereas agents' number of transactions, value of transactions and agents' commissions are independent variables.

**Figure1. Conceptual framework**



**Source: Researcher (2022)**

## Methodology

The study applied a quantitative research approach. A quantitative research method employs deductive reasoning, where the researcher forms hypotheses, collects data in an investigation and then uses the data to test hypotheses and make conclusions (Kothari, 2014). The research approach was used to assess the effect of mobile money levy on the performance of Mobile Money agents in Iringa Municipality in terms of number of transactions, value of transactions and commission. It involved closed ended questions administered to mobile money agents. In this study, an explanatory research design was applied. An explanatory research design is the one that seeks to ascertain causality between factors and to determine effects on behavior of a phenomenon and to predict how one phenomenon will change or vary in relation to another variable (Strydom, 2014). Given the nature of the research approach, this research design was the most appropriate. The researcher adopted a cross sectional research design technique. This technique involves collection of data at a single point in time. The technique has the advantage of saving time as well (Bell, 2007). This technique suited the study as it allowed the researcher to reach Mobile money agents within allocated time and get a snapshot of the results. The choice of this technique was as a result of financial constraints and limited time frame on the part of the researchers.

This study used simple random sampling technique. This was because mobile money agents are spread around all areas of Iringa municipality. This method is suitable for the study as it gives an equal chance for all the units in the population to be selected. It minimizes sample selection bias resulting into more accurate results. Closed ended questionnaires were administered to 95 mobile money agents dealing with M-Pesa, Tigo Pesa, Airtel money and Halopesa. Data classification was done using tables and excel sheets. Both inferential and descriptive analysis was done using charts, frequency tables and percentages. Moreover, chi-square and t-tests were used to analyze the relationship with the aid of Statistical Package for Social Sciences (SPSS) 20version.

## Reliability of the Study

Table 1 shows the value of the Cronbach's alpha coefficient which is the research scale as 0.913 or 91.3%. This is above 50%, which is a medium value for the internal consequence of the conceptual construction of the investigated scale. Therefore, because the value is greater than 0.5 the data is reliable.

**Table 1: Reliability Statistics**

Cronbach's Alpha	N of Items
.913	21

**Source:** Field data, (2022)

**Validity of the Study**

The validity of the study was measured using the Kaiser-Meyer-Olkin (KMO) and Bartlett’s Test of sphericity through the SPSS. The KMO Index compares the sizes of the observed correlation coefficients to the sizes of the partial correlation coefficients for the sum of analyzed variables. From table 2 below, the researchers found a sample sufficiency index (KMO) of 0.720 or 72.0% which is reliable as it is above the cut off 0.5 or 50%. In addition, the Bartlett supposition test of sphericity (Ho: All correlation coefficients are not quite far from zero) is rejected on a level of statistical significance  $p < 0.0005$  for Approx., so that the second acceptance of factor analysis is satisfied; Chi-Square=1278.377.

**Table 2: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.720
Bartlett's Test of Sphericity	Approx. Chi-Square	1278.377
	Df	210
	Sig.	.000

**Source;** Field data (2022)

**Findings**

From the 95 questionnaires administered to mobile money agents in Iringa Municipality, 93 equivalent to 97.89% of the questionnaires were filled and returned for analysis while 2 questionnaires were not returned. Findings revealed that 72 respondents equivalent to 77.4% were men while 21 equivalent to 22.6% were women. Furthermore, the majority of the respondents were within the age groups of 18-35 years (41.9%) and 36 to 45 years (47.3%). Moreover, 30 (32.3%) respondents had primary education and 40 (43%) had secondary education while Diploma and Higher education constituted the remainder 23 (24.7%). The findings indicate that the respondents had varying years of experience in the business where 26 (28%) had above 5-year experience, 20 (21.5%) had 5-year experience, 24 (25.3%) had 4-year experience and 23 (24.7%) had 3-year experience. This shows that the sample had enough representation in terms of gender, age, education and experience.

**Number of Transactions**

These are cash withdrawal and deposit transactions which an agent performs in a certain period of time usually a day. Customer flow determines the number of transactions an agent processes in a day. A small number of transactions is a disincentive to agents (GSMA, 2021).

The results of the study revealed that 78 equivalent to 83.9% of the respondents agreed with the statement that, they processed more transactions before introduction of levy on September, 2021. Moreover, 67 equivalent to 72.0% of the respondents agreed that, the number of transactions have declined because of levy. In addition, 47 equivalent to 50.5% and 44 equivalent to 47.3% of the respondents agreed that, reduction in levy will increase



number of transactions per day. This implies that mobile money levy resulted in the decline of number of transactions performed by mobile money agents.

### **Value of Transactions**

This is the monetary value of the transactions processed by the mobile money agent. With the levy, mobile money users may opt to transact in small amounts in order to take advantage of the small fees in lower bands which in turn affects agents' profitability (GSMA, 2021).

The findings of this study show that 54 equivalent to 58.1% of the respondents disagreed with the statement that the size of transactions processed had not changed since they started operations, while the other respondents were neutral about the statement. In addition, 46 equivalent to 49.5% of the respondents agreed that, customers were transacting in lower amounts because of levy whereas, 42 equivalent to 45.2% of the respondents agreed that, customers will transact more value if levy is reduced. This indicates a significant negative relationship between the mobile money levy and value transacted by mobile money agents.

### **Commission**

This is the payment made to mobile money agents as a compensation for the services they offer to customers on behalf of Mobile Network Operators (mobile telephone companies). Mobile money levy reduces the amount of commission due to its effect on number and value of the transactions (Rivadeneira, May, 2016)..

In this study, 72 equivalent to 77.4% of the respondents agreed with the statement that they used to receive a high amount of commission before the introduction of levy in September, 2021 whereas 14 equivalent to 15.1% of the respondents were neutral about the statement. In addition, 82 equivalent to 88.2% of the respondents agreed with the statement that, the introduction of levy has affected the amount of commission that mobile money agents receive while 71 equivalent to 76.3% of the respondents disagreed with the statement that, the introduction of levy has not affected the amount of commission they receive. Moreover, 76 equivalent to 81.7% of the respondents agreed that, reduction in levy will result in the increase of the commission per month. Furthermore, 63 equivalent to 67.7% of the respondents disagreed with the statement that, reduction in levy will not increase commission to the mobile money agents.

### **Discussion**

The main objective of this study was to investigate the effects of mobile money levy on the performance of mobile money agents in Tanzania drawing evidence from mobile money agents in Iringa Municipality. The Specific objectives were: to examine effect of number of transactions on the performance of mobile money agents in Tanzania; to determine the effect of value of transactions on the performance mobile money agents in Tanzania and to analyze the effect of commission on the performance of mobile money agents in Tanzania.

Findings have revealed that there is a significant negative relationship between mobile money levy effects on number of transaction and performance of mobile money agents. This

coincides with Clifford (2020) who found that poorly designed mobile money taxes in African countries have consequences which include reduced number of transactions.

Moreover, the findings indicate that there is a significant negative relationship between mobile money levy effects on value of transactions and performance of mobile money agents. This finding relates to Rivadeneyra et al (2022) which concluded that tax incentives tend to increase the frequency and value of mobile money transactions.

The results of this study show that there is a significant negative relationship between mobile money levy effects on commission and the performance of mobile money agents. This coincides with Mas (2013) who found that reduction in number of customers due additional transaction costs because of taxation is likely to impact profitability of money agents negatively.

Based on the findings, all null hypotheses were rejected while all alternative hypotheses accepted. Therefore, mobile money effects in terms of number of transactions, value of transactions and commission have affected the performance of mobile money agents in Tanzania. Mobile money agents are processing less transactions, low value transactions and receive lower commission compared to the period before the introduction of the levy.

### **Conclusion**

This study aimed at establishing whether the introduction of mobile money levy in September, 2021 in Tanzania had negatively affected the performance of mobile money agents in terms of number of transactions, value of transactions as well as agents' monthly commissions. The findings of the study have implications to the government, Mobile Network Operators (MNOs) as well as Academicians and Researchers.

The results indicates that mobile money levy has reduced the number of transactions processed by agents, affected the transaction amounts as well as reduced the amount of commission agents receive. This suggests that survival rates of agents decline. Some agents have closed their outlets because the commission is not enough to cover running costs. This implies that the levy constrains growth of agent network as well as curtailing financial inclusion. It also affects employment of people in the mobile money sector. It is therefore imperative for the government to review mobile money tax policies in order to promote usage of mobile money services which in turn promotes both financial inclusion and deepening. The tax reviews will attract more users and increase both number and value of transactions and increase commission earned by agents as well. In addition, the government is likely to generate more revenues due to the increase in number of transactions.

The overall effect of reduced agents' number of transactions, value of transactions and commissions falls on Mobile Network Operators (MNOs) who contracts the agents. This affects MNOs returns. Mobile Network Operators (MNOs) should design strategies on how

to incentivize mobile money agents such that tax effects are minimized and the agent network maintained.

The results of the study underscore the harm that taxes exert on growth of mobile money services and consequently mobile agent network in Tanzania. With mobile money taxes, the pivotal role that mobile money plays in the economy is halted. There is therefore a need to regularly assess mobile money practices and the relevant tax policies in order to institute appropriate redress mechanisms for fostering further growth of the sector.

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