

To Assess the Effectiveness of Mobile Money Application in the Development of SMEs Case study of Moshi Urban:

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Abstract- The main objective of the study was to determine the effectiveness of mobile money in supporting the growth of the Small and Medium Enterprises in Tanzania. The study was carried out in Moshi Urban, Kilimanjaro Region in Tanzania. Specifically, the study intended to determine the qualities of mobile money services which drive the SME's to use mobile money and the values it add to its users. A total of 38 SME's owners were randomly selected from different parts of Moshi Urban as a study sample. The primary data were collected through interview using semi structured questionnaires followed by focus group discussion. The secondary data were collected from papers and other documents related to SME's and mobile money. The data were analyzed by using

Statistical Package for Social Science (SPSS). More than 70% of respondents agree that the use of mobile money has played great role in development of their SME's. Furthermore the study found that majority SME's who are using mobile money are wholesales, followed by small retail shops. And the factor that influences the adoption of mobile money in SME's among other are cost of serving, and ease of use. Despite the significances there were some challenges associated with the mobile money, thus the study recommends that the cost of using mobile money should be reduced to attract more SME's to use mobile money also to reflect the living standard of many people. Doing so, it will increase the competitive advantage with the financial institutions. Moreover, the government should introduce the mobile money policy in order to regulate the mobile money operations and smooth its operations.

Keywords: Mobile Money, SME's

I. INTRODUCTION

Over past years, there has been a worldwide dramatic development in Information and Communication Technology (ICT). The growth of ICT went hand in hand with the growth of the mobile phones usage. Mobile phones are portable phones using cellular radio system (Oxford Dictionary, 2010). With mobile phones people can communicate to one another through sending and receiving

voice and text message. Along with mobile phones, many wireless applications of relevance for small enterprises have emerged whereby mobile money is one of the most notable applications of this trend (UNCTAD report, 2012).

Mobile money is defined as:

Money stored using the SIM (subscriber identity module) in a mobile phone as an identifier as opposed to an account number in conventional banking. Notational equivalent is in value issued by an entity (an MNO in this case) and is kept in a value account on the SIM within the mobile phone that is also used to transmit transfer or payment instructions, while corresponding cash value is safely held elsewhere, normally in a bank for the case of EAC. The balance on the value account can be accessed via the mobile phone, which is also used to transmit instant transfer or payment instructions (UNCTAD Report, 2012).

The growth of mobile phone application and mass users spread around the world by 19thC. However, in Tanzania it gained an increased potential from zero to 15% in between 1993-2006 (TCRA, 2006). With the growth of mobile phones technology, Mobile Money (MM) emerged as potential services which influences the big number of people in various aspects socially and economically (Mobile money trackers, 2010). Moreover, with mobile money, individual and SMEs are able to send, receive, and deposit money based on the financial transaction the personal or SMEs intend to make. Mobile network operators with mobile money services in Tanzania are Tigo (Tigo pesa), Vodacom (M-pesa), Zantel (Ezy Pesa) and Airtel (Airtel Money) (TCRA, 2010). These networks, in partnership with the banks, are there to make sure that individual and SMEs are provided with different services such as money transfers, payment and financial services.

What is required to get a service is just a simple registration process to set-up a customer's new account. For example, M-PESA account into which they can upload (deposit) and download (withdraw) cash at a large number of Vodacom's re-seller airtime distribution agents. Making a deposit is a similar process to topping up their airtime pre-pay balance: the account identifier is the mobile phone number and the customer goes to the very same place that they would go to buy airtime. There the similarity ends; the M-PESA account is entirely separate to the pre-pay airtime credit. Once registered, the customer can send funds to any other phone number, on any network (NardiSteve, 2000 as cited in Bagana and Muturi, 2015). The receiver gets a text message that can be taken to a re-seller agent and, cashed in, enabling person to-person money transfer instantly over large distances (Bagana and Muturi, 2015).

According to Jenkins (2008) it is with good reason that mobile money is such a hot topic in the telecommunications and financial services sectors and in the international development community as it reduces the cost and risk inherent in dealing with cash. More significantly, mobile money is reported to facilitate the flow of money from one party to another using a communications infrastructure that already connects billions of customers around the world – far more customers than currently have bank accounts.

Small and Medium Enterprises (SME's) on the other hand are the largest drivers of the economy in developing country like Tanzania as they contribute up to 35% of Gross Domestic Product (GDP) (Tanzania Invest, 2009). As far as SMEs are coincided with the economy of country, TCRA report of September, 2011 showed that the average spending per users of mobile money clocked to 38.86 billion from 33,979,870 subscribers countrywide, 32% of them coming from agriculture transactions, and small business owners. This is the evident that the adoption and uses of mobile is above the half of country wide population of over 45 million people (Daily news 2002/4/12). In addition, the UNCTAD report 2011/12 showed that Mobile Money (MM) has the greatest influence in developing countries like Tanzania from perspective of small business, money transfer; and merchant bills payment.

With its simple and standardized transactions mobile money is becoming of great advantage country wide. The link of mobile money to the overall economy can be reflected in various aspects that requires faster transfer of money such as in small business, domestic affairs, access of banking accounts using mobile money, bills payment, air ticketing and purchase of air time credit (Tanzania invest,2010). The growth and development of SMEs in most cases depends on good operating environment, and sustainable financial system /services where all commercial

banks provides credits, money transfer, saving and leasing, to mention but few, Mataba et al. (2009).

These services are so far important but seem not helpful in relation to SMEs transactions which occur mostly overnight. Mobile money however has a range of services that the SMEs could benefit from using mobile money technology. These services include mobile money transfers, mobile ATMs, mobile ticketing, mobile vouchers, loyalties and coupons, content purchases and deliveries, information services, mobile banking, mobile purchases, and mobile marketing and advertising.

Regardless of the extensive documentation on the impact of mobile money in the development of SMEs in African countries, many studies of this nature have been done in Kenya and little is known about effectiveness of mobile money application in the development of SMEs in Tanzania. Even if the reviewed literature suggest that mobile money has significantly contributes to the development of SMEs in many African countries especially Kenya, but there is no empirical evidence that support the claim in Tanzania.

Given the importance of mobile money, this study was carried out to find out the effective of mobile in supporting the growth of SMEs especially in Moshi Municipal. During the process of analysis, the study intends to answer the following research questions: what are the qualities of mobile money services? To assess how it is economy to use mobile money services in business activities compared to other financial services? And what are the values mobile money services adds to SMEs?

II. LITERATURE REVIEW

A. *Small and Medium Enterprises (SMEs)*

Small and Medium Enterprises (SMEs) have been and are still a central hub in generating income for the majority of urban dwellers with no formal paid employment. In Tanzania, and the East Africa region, entry into small business entrepreneurship has been simplified, giving more opportunity for setting up more SMEs (Kipilyango, 2012). The definition of SMEs varies from one country to another. In Tanzanian context, enterprises are defined / categorized based on number of employees and capital directly employed in machinery (United Republic of Tanzania-

Small and Medium Enterprises Development Policy 2002).

Type of Enterprise	Number of Employees	Working Capital Tzs
Micro	1-4	0-5mil
Small	5-49	>5-200mil
Medium	50-99	>200-800mil
Large	100 and above	Above 800mil

Table 1: Small and Medium Enterprises

Small and Medium Enterprises (SME's) are the largest drivers of the economy in developing country like Tanzania as they contribute up to 35% of Gross Domestic Product (GDP) (Tanzania Invest, 2009). Not only in Tanzania, but the significance of SMEs is witnessed all over the world. For example, the survey done by Stein, Bilandzic, and Hommes (n.d) reported that SMEs are the first suppliers of employment across countries, contributing 66% of the job market of developing countries.

However, despite their significance, SMEs have been facing various challenges which affect their growth and profitability and hence, diminish their ability to contribute effectively to sustainable business growth (Nyanga, 2013). The challenges ranges from lack of managerial skills, highly competitive environment, poor debt collection technological changes, regulatory challenges, to lack of affordable credit and financial services to facilitate business transactions and business growth(Bowen, Morara & Mureithi 2009 as cited in Nyanga 2013).

Because of their importance, the government of united republic of Tanzania introduced many strategies to improve SMEs. Some of the strategies include SMEs policies formed in 2002 covering various aspects essentials for SMEs sustainability such as areas of operations, characteristics of SME's and Microfinance policies however consideration on mobile money was not made by then as the major media of money transfer that facilitate simplicity of SME's transaction (SME development policy, 2002). However, despite it not being recognized in 2002 SMEs policy, mobile money service has many importances in the growth and development of

SMs. Evolution of mobile money has played a great role in SME's development. It has become the best alternative financial services compared to formal financial institution example banks.

B. Importance of Mobile Money

One of the importances of mobile money is that it provides SMEs with low transaction cost (Zutt 2010). It is more

convenience, faster speed, and lower cost of transferring funds. Mobile money has general impact on whole economy specifically in financial institutions which in terms affect the players of economy from the scope of individual level to the level of enterprises (Gikuyu, 2009).

Lack of securities to act as collateral to access finances especially from mainstream financial institutions such as the banking sector has been identified as one of the challenge affecting SMEs (Tundui 2012; URT 2012, Nkonoki, 2010). Not only that, but also lack of an account with the bank to make savings is a contributory factor limiting the capability to access finances. However, according to Nyanga, (2013) mobile money allows any subscriber to add credit to his or her mobile account and store it for later use, some of the features like storage, payments and transfers makes it possible to build additional financial services within the mobile phone technology. To add, he explains, there is access to small loans which can enable people to pursue activities that would not only sustain their livelihood but also bring their families out of poverty. This is what Nyanga calls a functioning microfinance institution which can also relate to SME through use of mobile money services. Savings is the complement to credit; with credit, SMEs can acquire loans on savings and spread their loan repayments over time. According to Nyange, savings is a form of capital accumulation which over time it will allow SMEs to expand their business potential and capacity.

Jack & Suri (2011) reveal that the mobile money is faster, cheaper, more reliable, and safer while Wishart (2006) explains that with mobile money there is less opportunity for fraudulent and criminal activities. Generally, despite SMEs mobile money challenges such as sending money to wrong telephone numbers led, connen agents and fraudsters theft, expensive when transacting across other network, and delays due to systems breakdown (Bagana and Muturi, 2015; Catherine and Margaret, 2015), still mobile money has made a positive contribution to the SME sector since majority of the traders rely on it as opposed to the formal banking sector for their day to day transactions

(Catherine and Margaret, 2015). SME's are said to adopt mobile money because it is fast compared to alternative forms of financial services, convenient, understandable user interface and well develop agent network as well as affordability. They conclude saying that Mobile Money brings "Just in Time business" Lennart and Bjorn (2011).

III. METHODOLOGY

The study was carried out in Moshi Urban, Kilimanjaro region. The area was selected because of its richness in SME's and mobile money users. Simple random sampling was used to select individual SME's owners. A total of 38 SME's owners were selected from different location of

Moshi Urban. Primary data and secondary were used in this study. Primary data were collected by interview using semi questionnaires and discussions. On the other hand, secondary data were collected by review of papers and other documents related to SMEs and mobile money. The data were analyzed by using Statistical package for social sciences (SPSS).

IV. FINDINGS

A. Respondents Sex

Thirty eight respondents were interviewed whereby 26 were male which was equal to 68% and 12 were female which was equivalent to 32%.

Sex	Frequency	Percentage
Male	26	68%
Female	12	32%
Total	38	100%

Table 2: Respondents sex

From the above findings, we see that the majority respondents were men which shows that there is a need to empower women to engage themselves in SME business which will make impact in their standard of living.

B. Respondents Education Level

The study found that respondents education level were distributed as follows: 8 respondents equal to 21% were uneducated, 11 respondents equals to 29% had primary school education, 12 respondents equal to 32% had secondary school education, and 7 respondents equal to 18% were University graduates as indicated in the Table 3.

Table 3: Respondent education le

Education	Frequency	Percentage
Uneducated	8	21%
Primary School	11	29%
Secondary School	12	32%
University	7	18%
Total	38	100

From the data above shows that, those who are not university degree holder are eager to conduct business activities than university graduates as more than 50% of the respondents are non university graduates.

C. Types of Enterprises owned

The finding shows that, six respondents equal to 16%, were marching guys, 11 respondents equal to 29% had small retail shops, 12 respondents equal to 32% were whole sales and 9 respondents equivalent to 23% were market vendors as summarized in the Table 4.

ntEerprise	Frequency	Percentage
Marching guys	6	16%
Small retail shop	11	29%
Whole sales	12	32%
Market vendors	9	23%
Total	38	100

Table 4: Types of Enterprise Respondents Own

This shows that the owners of retail shops they are using mobile money than other respondents.

D. Mobile money provider's distribution

Out of 38 respondents majority equal to fourteen (14) respondents equivalent to 37% were using M-pesa, 13 respondents equivalent to 34% were using Tigo pesa, 11 respondent's equivalent to 29% were using Airtel money.

Mobile Money Operator	Frequency	Percentage
M-pesa	14	37%
Tigo-pesa	13	34%
Airtel money	11	29%
Total	38	100

Table 5: Mobile Money Service Provider

These finds shows that many respondents are using M-pesa for their business transitions followed by Tigo pesa and Airtel money.

E. Factors that influence adoption of Mobile money in SME's

The study wanted to know the factors that influence the adoption of mobile money among SME's. Among other factors, that influenced them to adopt the use of mobile money in their business activities are summarized in Table 6 below.

Factor	Number of respondents	Percentage
Ease of use	23	60%
Usefulness	18	47%
Reliability	17	44%
Time saving	19	50%
Cost Serving	26	68%

Table 6: Factors influences adoption of Mobile Money

This data shows that many SME's owner they are using mobile money because it is cost serving, ease to use and time saving.

F. Quality Features of Mobile Money

Most of the respondents especially 100% of SME owners argued that mobile money is of vital while making a certain type of business transactions as it is reliably available everywhere, you can deposit, transfer and draw money everywhere you want using thousands of mobile money agents and as faster as possible compared to other financial institutions. In addition the respondents gave various features of mobile money such as speed, accuracy, convenience, reliability and safety. The key qualitative features as per respondent were as follows.

Quality feature	Respondents Frequency	Respondents
Speed	32	0.84
Accuracy	26	0.68
Convenience	24	0.63
Reliability	30	0.79
Safety	31	0.82

Table 7: Factors influences adoption of Mobile Money

G. role of Mobile Money to the development SME's

Through observations, discussion and interview with respondents it was revealed that there was a vital trend of SME's development in relation to establishment of mobile money. About 70 percent of respondents explained mobile money to be the great catalyst that boosted the volume of their business transactions. 28 respondents equal to 74% agreed that mobile money has great catalyst, followed by 8 respondents' equivalent to 21% who says that mobile money has low catalyst while 2 respondents equal to 5% says mobile money has no catalyst.

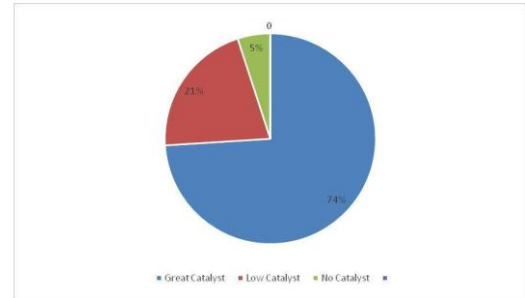


Fig 1: Mobile Money development to SME's

V. CONCLUSION

This study aimed at examining the effectiveness of mobile money in supporting the growth of

SME's. The findings revealed that, mobile money has great influence on the growth of SME's due to the fact that highest transactions involving transfer of fund such as ordering stocks, collecting cash from credit sales, and accessing bank accounts. Presence of mobile money has therefore made a turn to SMEs as it simplified difficulties associated with funds transactions, reduced transaction cost, fastened transactions, increased accuracy and increased produce-seller linkage. As far as entrepreneurial characteristic (time conscious) is concerned, mobile money cope with it to the highest extent in regard to the pre-determined features of speed, accuracy, convenience and reliability. Those features are therefore the one which make mobile money proud of itself in comparison to other financial institutions such as banks. On the other hand, mobile money is working hand with hand in facilitating banking activities such as accessing of personal accounts and making various transactions which are vital for SMEs development. Mobile money is therefore plays the central role of linking Commercial Banks, SMEs and customer of both commercial banks and SMEs.

VI. RECOMMENDATIONS

From the discussion and conclusion drawn, the following are the recommendations to the mobile money users (SMEs), mobile money service providers and government.

A. To Mobile Money Service Providers.

1) Reduction of transaction costs.

Many SMEs owners explained that the cost associated with sending and receiving money are higher and increasing day to day. Mobile money service providers must adjust cost to make them reasonable in relation to the living standard of many Tanzanians who are still poor. Charges must however be low compared to bank charges so as to increase competitive advantage there by making customers feel lucky of having mobile money compared to banks. Moreover, the charges should be uniform across all mobile money service providers to make customers have wide variety of choice of the same service.

2) Improve security and safety of customers' money and agents

Still handling of money between customer and agent was reported to be not safe. There is no security to the extent that it is possible to be attacked by thieves since most of agents are in remote areas while others are by roadsides where theft is possible. The situation threatens SME owners from making transactions that involves huge amount of money.

3) Transform mobile money to mobile banks

Although mobile money offers services similar to those of banks and in more competitive way, still they should make it glancing and more beneficial to entrepreneurs and SMEs. Various ways can be adopted to achieve this, for example Vodacom through M-PESA has already paved a way by introducing M-Pesa Women Empowerment Initiatives (MWEI), a program that offers credit service to women's and self-help groups. Hence other mobile money service providers must take the same course so as to transform mobile money into full-fledged commercial bank that offers credit, loan, saving, money transfer and other services in more competitive way compared to existing commercial banks.

B. To the Government

The government must regulate mobile money since till now there are no clear defined policies that govern operation of mobile money. Government must stabilize mobile money in terms of costs they impose their users who are majority of Tanzanians of displeasing living standards. Importantly, there should be one stable and similar charge across all mobile money service providers. Moreover the government must take precaution against mobile money since which involves transactions of huge amount of money in the whole country at short period of time. Probably it might be causing unnoticed and technical rate of inflation in the economy which must be watched with sharp eyes.

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