Factors Influencing the Uptake of Mobile Money Service in Tanzania

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ABSTRACT
This paper investigates factors influencing the adoption of mobile money services by SMEs based in Tanzania. Factors that were studied include the perceived ease of use of mobile money services, the usefulness of the mobile money services and the intention to continue using services. The literature reviewed the following models: The Technology Acceptance Model, Diffusion of Innovation and the TOE framework. Furthermore, the study adopted Positivism Philosophy, hence, the researcher did not influence the results. Also, the study adopted mixed research methods, nevertheless, the survey method was the basis. Generally, SME owners admitted that they were benefited by the use of mobile money. The benefits influenced their intention to continue to use mobile money services.
Keywords: *Mobile Money, Technology Acceptance Model, SMEs*

1. BACKGROUND TO THE STUDY

Mobile money refers to virtual or electronic money stored using subscriber' Identity Module Card (Financial Action Task Force, 2013). The card acts as a unique identifier of the user account. The electronic money may be converted to physical money through a network of agents. Traditionally, Mobile phones were used for making voice calls and messaging services. However, in recent years the use of mobile phones has increased to include traditional banking activities (Agwu & Carter, 2014). Mobile phone users are able to access and transact through their wallet accounts. As the result, mobile phones provide people with an opportunity to virtually access banking services with minimum conditions (Masamila, 2014).

Reports show the increase in the number of mobile phones subscribers in Tanzania. In June 2015, the number of subscribed SIM Cards was equivalent to 68% of the whole population (Tanzania Communication Regulatory Authority, 2015). To some areas, the use of mobile phones correlates with economic growth. This is because, there are many cases where mobile phones are used for business transactions, while enhancing communications (Williams, 2012). In 2013, the total value obtained through mobile payment systems in Tanzania was 12,389,000,000 TZS (Bank of Tanzania, 2013). The figure is equivalent to 52.9% of the total retail payment services of Tanzania (Bank of Tanzania, 2015).

Many authors acknowledge benefits of mobile money services to the growth of economy in Africa (Williams, 2012). The available benefits suggests why it is important to advocate the use (of mobile services), while maintaining the quality of services. One of the factors believed to influence the use is the degree to which users perceive mobile tools as easy to use (Rogers, 2003). Any technological application which is easy to use requires no or minimum training to adopt (Wamuyu, 2014).Moreover, people are likely to increase the use of a new technological service provided that the use yields benefits (Rogers, 2003). Some of the benefits to users include efficiency in transactions and communications.

Moreover, the literature suggests social pressure to influence the uptake of new technological services (Wamuyu, 2014). In the case where the new technology is adopted by people trusted within the community, or the adoption supports the culture of the people; the uptake is likely to increase. For example, early adopters of mobile money services in towns, influenced the use to members of the rural community. This is because mobile money supported people who worked in towns to send money to their families located in rural areas, with great convenience (Medhi, Ratan, & Toyama, 2009).

Generally, because of the benefits of mobile money services, stakeholders are investing effort in making them accessible to the whole Tanzanian community. One of the effort by the government is to subsidise the installation of the infrastructure to disadvantaged places. With these efforts, it is likely that the number of mobile users will increase, therefore, it is valuable to know factors determining the uptake of mobile money services in Tanzania.

2. STATEMENT OF THE PROBLEM

Mobile money services have gained a great popularity in Tanzania. This include in rural area where banking services are accessible with difficulties. Mobile money services overcome challenges of traditional banking systems such as poor telecommunication infrastructure, unreliable sources of power and the potential of making return on investment due to the scattered population (Nyaga, 2014). Studies suggest the following benefits to users upon the adoption of mobile money services: Instant and secure transactions, and the reliability of services due to the presence of many agents. With these benefits, mobile money services have the potential of steering the development of the Tanzanian society. It is because of this reason that this study determines factors that influences the uptake of mobile money services.

3. OBJECTIVES

Generally, the study establishes factors influencing the adoption of mobile money services by the Tanzanian SMEs. The following are specific objectives:

i. To determine the extent to which the perceived usefulness influence intention to use of mobile money services by SMEs.
ii. To determine the extent to which perceived ease of use influence intention to use of mobile money services by SMEs.
iii. To evaluate the impact of intention to use on the uptake and continuance usage of mobile money services by SMEs.

4. METHODOLOGY

This study adopts descriptive research design under positivism philosophy. Generally, it is conducted under the assumption that the author do not influence the output of the study. Equally, the study may be generalised to the population which shares characteristics with the population of the study, as shown in the next paragraph. Although the study adopted mixed research methods, the survey forms the basis of all analysis. Additionally, the literature was reviewed to form the basis of the study, and to complement different areas of the discussion of the findings.

The population of the study was formed by SME businesses which based in the Kinondoni Municipality, Tanzania. Probability sampling was used to select sample SMEs shops and mobile agents for those had capital of at least 5 Million. Respondents had equal chance of being selected. Data were collected from 105 SMEs businesses. Data collected through the closed end questionnaire, were coded and analysed through SPSS Version 20. The questionnaire reflected research themes shown by the research questions to ensure their validity. Moreover, field data were collected by the researcher to enhance the level of reliability.

5. LITERATURE

Mobile Money refers to the exchange of electronic money value stored in a mobile phone registered by Mobile network operators which is accessed through the use of cellular phone (Wamuyu, 2014). The mobile money service user is able to load electronic money on the phone, which may be used in making payment for bills, or transferred to the third part (Vivienne, 2012). Mobile money e-commerce.

Mobile money services are technological in nature. Therefore, many areas of their adoption are likely to be supported by technological theories. One of the theories of the study discussed in this section is the Technology Acceptance Model. This theory discusses criteria for users to accept the new technology. The study by Rogers on diffusion of Innovation, indicated that the decision to adopt or reject an innovation is subject to a wide variety of factors, the perceived usefulness and the perceived ease of use (Rogers, 2003). The later variables are at the Technology Acceptance Model. They determine the intention of the user to use the technology, and eventually the use behaviour. Also, the later version of Technology Acceptance Model acknowledges

the influence of factors external to the user in influencing the adoption. Such factors include social norms (Venkatesh & Davis, 2000).

The Diffusion of innovations is another model explaining how, why, and at what rate the new idea and technology spread through cultures (Rogers, E, 1995; 2000; 2003). Although the model focuses at the process for technology adoption, it also acknowledge factors for the adoption through the "why". In this case, the Diffusion of Innovation model supports variables such as the perceived usefulness, the ease of use and other factors external to the user as proposed by the Technology Acceptance Model (Venkatesh & Davis, 2000). Eventually, these factors are the one determining the rate of use (Rogers, 2003).

Additionally, this study considers a model for technology adoption by an organisation. This is because, although many local organisation carries individual identity, they also reflect organisational characters (Tornatzky & Fleischer, 1990). The Technology, Organisation and Environment (TOE) framework recognises three aspects of an enterprise that influences the adoption of technological innovation: technological context, organizational context, and environmental context. Arguably, technological context agrees with the TAM. This is the degree to which the technology is useful and easy to use (Rogers, 2003). Moreover, environmental context refers to factors external to the adopter, which influence the adoption (Tornatzky & Fleischer, 1990). This factor do also agree with the TAM model. This study uses the variables (perceived usefulness and the ease of use) in determining whether they affect the uptake of mobile services by SME owners in the Kinondoni Municipality.

6. RESULTS

This section presents the results of the study. The study intended to:-

i. Determine the influence of the perceived ease of use and the perceived usefulness to the intention to use mobile money service
ii. Determine the influence of the intention to use to the continuance usage of the technology.

6.1 THE USEFULNESS OF MOBILE MONEY SERVICES AND THE INTENTION TO USE

This section addresses the first objective of the study. It aimed at showing how the usefulness of the mobile money relates to the intention of users to use the technology. Five variables from usefulness point of view were used to explore the perception of users on how mobile money was useful to them. Respondents were required to responds if they saved time while using mobile money, if they faced

minimum transactional costs, if they had assurance of mobile money service, if they depended much in service and if they used to receive benefits from using the service.

During the analysis of the variable above, the study used frequency and percentage to understand the extent to which mobile money service was useful to users. However, in relation to their usages, all mobile money users were required to rate the usefulness of mobile money services and cross-examine if the perceived usefulness of mobile money influenced the intention use of mobile money services in their day to day activities. The study analysis response and weight was; strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5):

Through using mobile money services, majority of respondents agreed to save time while performing business transactions with the means of mobile money service. About 72.7% of respondents strongly agreed that mobile money was effective in saving time, while 27.3% agree the same. No users disagreed.

Respondents also agreed to use mobile money as the only reliable means of doing transactions and often use it because of its high availability and less inconveniences. About 63.6% of respondents strongly agreed the fact while 36.4% just agreed based on questionnaires required responses. There were no users disagreed with the fact of service assurance and reliability.

However, respondents indicated to depend at high extent in using mobile money service without the need of alternative methods. That was the reason made them to use mobile money. About 49.1% of all respondents strongly agreed to depend on mobile money services while 45.5 % agreed to depend on it. Other 1.8% of respondents were neutral on their decision either they depend or not, while 3.6% disagree to depends on mobile money services for various transactions and indicated to use other methods of transactions like cheque and traditional banking services.

Moreover, respondents indicated to incur low cost while performing transactions through mobile money than other methods. The sending and receiving charges were low than banking services. About 67.3% of respondents strongly agreed that they incurred very low transaction costs while only 32.7% of respondents agreed on the same fact. No respondent(s) disagreed with the fact of lowest costs in charges and transactions.

Lastly, respondents were asked if they benefited from using mobile money service to see if they potentially boosted their business success. About 63.6% of respondents strongly agreed to benefit through using mobile money services. The above

discussion reveals that the benefits that they acquired is due to the reliability, low cost and the fact that mobile services redeem time.

6.2 THE PERCEIVED EASE OF USE AND THE INTENTION TO USE

This section of the study addresses the second objective of the study. It aims at showing how the ease of use of the mobile money services influence the intention of users to use the service itself. Six variables were used to measure the perception os users on how easy it is to use mobile money services.

The variables are: Language understandability, training complexity, easy of correcting mistakes, and the easy of accessing customer support. In the language used, all respondents indicated that the language used on mobile money services is easy to understand provided that one is proficient in reading and writing. Statistically, about 87.3% of respondents strongly agreed that the language used is easy to use, and 12.7% agree. This is supported by the fact that the two languages are used (Kiswahili and English). Similar to other East Africa countries, Swahili (Kiswahili) language broadly used by the local people (Kamau, 2007).

Moreover, the study determined the perceived complexity of procedures for completing a transaction through the use of mobile money services. The majority admit to adopt mobile money services without formal trainings. The interview revealed that some consider it as a normal system in the community, and anyone should be able to use it after registration. About 96.4% of respondents strongly agree, and 3.6% agree and agree to use the service because it was easy and simple method while 3.6% respondents agree that they used mobile money services with minimum training. Only instructions from the registrar of the service were enough to operate.

Another factor used to define how easy it is, to use mobile money services is the extent to which correcting mistakes at any step during transactions is simple. This factor leads to a minimum chance of losing money, in case someone make a mistake. For example, in cases someone sends money to a wrong numbers. Statistically, 34.5% of respondents agree that the correction steps are easy to follow, and 61.8% strongly agree.

Lastly, respondents were asked about the adequacy of the support that they receive from operators, about 69.1% are highly satisfied, and 30.9% are satisfied. Even though sometimes there were delays, respondents managed to access the support service.

7. CONCLUSION

The study findings showed that SMEs were using mobile money for different business purposes. SMEs were comfortable with the way mobile money was simple and useful in day to day activities. It was further found that the mobile tools were usefulness and ease to use, and the two factors contributed to users' intention to continue to use mobile money services. One of the urgent recommendation is to keep on improve the ability of the support room to respond to clients' queries promptly

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