

## CONSUMER BEHAVIOR AND THE USE OF E-MONEY MOBILE IN TANZANIA

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### ABSTRACT

The purpose of this study is to understand consumer's behavior on their use of e-money mobile. The study of use e-money mobile is still at the early stage in the payment transaction. The e-money mobile is a new product for payment transaction that look for massive, micro, and quick means for the transaction. The model that integrates into this study is the Decomposed Theory of Planned Behaviour (DTPB). In particular, it is simultaneously assessing the determinants of consumer's use e-money mobile in Tanzania which examines seven (7) variables. The variables are attitude, subjective norm, perceived behavioral control, perceived risk, perceived security, intention and usage behaviour. Based on a sample of eighty hundred (800) respondents was selected using the mall-intercept method with technique sampling multistage cluster sampling and systematic random sampling in Dar-es-salaam City, Tanzania. The Partial Least Squares Method (PLS) series PLS 2.0 M3 for algorithm and bootstrap techniques and SPSS 18 was used to test the hypothesis that has been developed. Results show that all variables had a significant positive influence on the use of e-money mobile. This study contributes to improving the specific theory of DTPB that generally limited to e-Commerce, e-Banking, and other social networking. The findings give more information to the issuers about the characteristic consumers and add new knowledge for academics, practitioners, bank, assurance companies, airline companies and the health sector.

**Keywords:** E-money Mobile, Usage behaviour, Decomposed Theory of Planned Behaviour, Payment Transaction, Tanzania

### 1.0 INTRODUCTION

There is a limitation on the implementation of e-money mobile in most developing countries and some developed countries. The direction of policy and development for e-money should focus on the efforts to increase the use of e-money in the community (Lotz & Vasselín, 2019). Consumers need to register for more than one account or card where limited interconnection or interoperability between issuers brings complex procedures in order to facilitate cashless environment (Blechman, 2017). For instance, Tanzanian customers have been discovered to have weak self-confidence and lack of resources facilitating condition to use e-money mobile. Besides, this will affect a customer's attitude toward hard to access e-money mobile while some troubles exist in transactions (Blechman, 2017). In addition, consumers have

limited access to information due to the geographical scenario in Tanzania. It has posed certain difficulties for consumers in dealing with product and services (Blechman, 2017). In Tanzania, mobile money subscribers grew up to 20.2 million by 2017 (Mwashiuya & Mbamba, 2020).

## 2.0 LITERATURE REVIEW

This study mainly focuses on mobile phone users by examining their intention to use E-money mobile. The research framework for this study is primarily based on the Taylor & Todd (1995) decomposed theory of planned behaviour (DTPB) model. The decomposition approaches attitudinal beliefs, normative beliefs, and control beliefs into multi-dimensional belief constructs. This study uses DTPB model by including other factors of behavioural intention which are awareness, perceived security and perceived risk as a new construct. This study uses the decomposed theory of planned behaviour by Taylor & Todd (1995) as a basis for determining the factors influencing consumer's to use e-money mobile in Tanzania.

### Attitude

If the consumer has a positive evaluation of intention to use e-money mobile, there is a greater chance in the consumer intention to use e-money mobile. The influence of attitude on the intention to use has been demonstrated by numerous studies as in the field of information (Ayudya & Wibowo, 2018; Husnil Khatimah & Halim, 2016; Mital, Pisano, & Del Giudice, 2020). A positive attitude about internet banking should be done before the technology can be accepted (Maherali, 2017). If an individual forms positive attitudes towards e-money mobile, they will have a strong intention to use e-money mobile. Therefore, they are more likely to use it. Another study by Setiawati & Falah (2019) explored that positive attitude affects behavioural intention to use instant messaging services. Previous research has shown that the effects of attitudes toward behavioural intention, which in turn will affect the behaviour. Especially, the studies related to the field of e-money mobile was minimally discussed and more discussion in mobile services. For example, some studies have been conducted and verified that the relationship between attitude and behavioural intention to use in mobile services (Husnil Khatimah & Halim, 2016; Kurniawan, Wahyuni, & Valentina, 2019). It also verified that the attitude has positively influenced behavioural intention to use (Chogo & Sedoyeka, 2015; Tagle, 2019). Therefore, this study hypothesized that:

**H1:** Attitude positively affects the intention to use e-money mobile

### Subjective Norm

The subjective norm in this study is that there are limited studies conducted in Tanzania concerning E-money mobile. Subjective norm reflects to the perceived pressure from people who think consumers are important to them. Subjective norm refers to other people's perceptions of the individual's opinions on whether he should do or not do a particular behaviour (Ajzen, 1991). In particular, previous studies take numerous the subjective norm-setting e-money mobile in Tanzania as a predictor of intentions these study found a significant effect (Chogo & Sedoyeka, 2015; Xena & Rahadi, 2019). In another study, Hutomo & Ramadhan (2019) described that higher levels of the subjective norm of online

purchases should lead to a higher level of intention to buy.). Other studies have also proved that subjective norm significantly has an effect on behavioural intention (Ayudya & Wibowo, 2018) . More study on the acceptance of electronic brokers (e-broker) has also confirmed the relationship; subjective norm significant effect on intention (Surtikanti & Mustofa, 2019; Xena & Rahadi, 2019). Subjective Norms have also been recognized to play an important role in determining the adoption of mobile technologies (Al-Refai, 2015; Caluwaerts, 2015) . It was improved that subjective norm has a positive effect on behavioural intentions (Husnil Khatimah & Halim, 2014, 2016). Therefore, the second hypothesis for this study can be summarized as:

**H2:** Subjective norm positively affects the intention to use e-money mobile

## **Perceived Behavioural Control**

Mobile Perceived behavioural control is the extent to which a person believes that he/she has been controlled by personal or external factors that may facilitate or hinder the performance of the behaviour (Ajzen, 1991). Perceived behavioural control refers to an individual's perception of the presence or absence of the necessary resources, or opportunities necessary to perform a behaviour (Ajzen and Madden, 1986). Perceived behavioural control describes users' perceptions if they have the necessary resources such as time and money (external factors), capabilities such as the ability, confidence, and self-efficacy (internal factors) to successfully perform the behaviour. Some empirical studies have found an association between PCB and intentions (Ayudya & Wibowo, 2018; Hutomo & Ramadhan, 2019). Other studies also show that perceived behavioural control is positively related to behavioural intentions (Hutomo & Ramadhan, 2019; Khatimah, Susanto, & Abdullah, 2019). In the context of mobile services, the study also verifies that perceived behavioural control positively influence behavioural intentions (Ayudya & Wibowo, 2018; H Khatimah et al., 2019; Lashitew & Tulder, 2019; Octabriyantiningtyas, Suryani, & Jatmiko, 2019). Therefore, the second hypothesis for this study can be summarized as:

**H3:** Perceived behavioural control positively affects the intention to use e-money mobile.

## **Perceived Risk**

Lee & Song (2013) stated that perceived risks or uncertainties affect people's confidence in their decisions. In the context of mobile services, a study by Kim, Ferrin, & Rao (2008) concerning the trust-based consumer decision-making model in electronic commerce verify that perceived risk is the most important factor in the adoption of mobile phones. Numerous studies have applied perceived the risk to consumer behaviour studies and further identify the multi-dimensional nature of the perceived risk construct (Martins, Oliveira, & Popovič, 2014). The significant influence of perceived risk on the intention to use has also been verified in a number of studies in Internet banking-related (Karnik, 2014; Lee & Song, 2013). This result may contribute in terms of validation on the impact of perceived risk in mobile marketing acceptance study that significantly influences intention to use. The significant result in this study implies that perceived risk is one of the important factors that determine consumers' intention to use mobile marketing services. The importance of perceived risk has been established in prior studies (Husnil Khatimah & Halim, 2014; Martins et al., 2014)

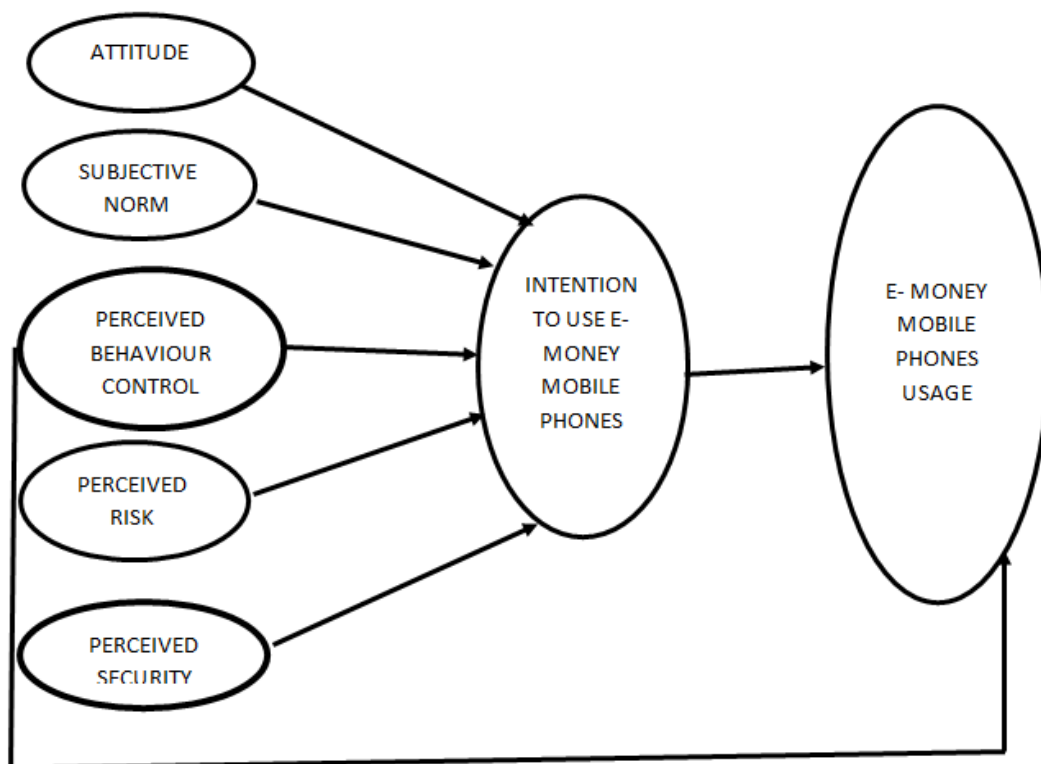
element of the buyer-seller relationship. Additionally, perceived risk plays a crucial and important role in determining the adoption process in a mobile context (Husnil Khatimah & Halim, 2014; Setiawati & Falah, 2019). Many studies that improved it have disclosed the significant and negative effects of perceived risk on intention (Heredia, Geldes, Kunc, & Flores, 2019; Lashitew & Tulder, 2019) As mentioned above, risk perception is believed to influence consumers' willingness to adopt e-money mobile as a new micropayment system. Therefore, the relationship between risk perception and behavioural intention to use e-money mobile is validated as a negative relationship. The study, therefore, present hypothesizes: H4: Perceived risk negatively affects the intention to use e-money mobile.

**Perceived Security.**

Perceived security is defined as the extent where consumers trust the safety of the Internet for the transmission of sensitive information for business transactions (Kurniawan et al., 2019). The perceived security has been examined in a number of studies towards intentions with a positive relationship in various countries(Kim et al., 2008; Saleh & Mashhour, 2014). The situation might not be the same as the Tanzanian e-money mobile consumers. It makes them build their intention to use e-money mobile if security problems can be solved or minimized. The study, therefore, present hypothesizes:

**H5:** Perceived security positively affects the intention to use e-money mobile

Based on the above discussions, the following conceptual framework is presented: The research framework is illustrated in figure 1 as follow



**Fig 1. Conceptual Framework**

## 3.0 RESEARCH METHODS

To achieve this study's objectives a combination of inferential and descriptive statistics were employed as data analysis methods. As explained in the research design earlier, describing characteristics of people, organisations, objects, groups, or environment and explanation of one variable relationship to another deal with descriptive statistics. When a researcher draw conclusions (or to make inferences) from a sample refers to inferential statistics. In this study, two major PLS-SEM software applications, however, a combination (Ringle, Wende, & Will, 2005) and PLS-Graph (Chin et al.,2003) in the analysis and result presentation were employed.

## 4.0 RESULT

The data applied for this study was retrieved by assigning 800 questionnaires to Tanzanian Generation Y consumers, out of which 491 were usable for the analysis, representing 67.5% of the population. This study applied the PLS approach to examine the research questions. The structural model was used to distinguished the significant path relationships between factors involved in influencing consumer buying behaviour among the Tanzanian users of pirated music. For decision-making, one-tailed (0.01, 0.05 and 0.1) level of significance was applied relating to the hypotheses.

## 5.0 DISCUSSION

In understanding the nature of the customer's usage, this study is expected to contribute to the e-money mobile knowledge in several ways. The information expects to help in explaining the theory underlying e-money and consumer behaviour.

Firstly, this study gives contributions to the specific theory DTPB (Decomposed Theory of Planned Behavior). The explanation on the intention to use e-money mobile is still limited in Indonesia which most explanations involve general theory such as E-commerce, e-Banking, and other social networking. It is significant for adding new information to the literature review as a comprehensive model to investigate a set of antecedents that have an influence on the intention to use e-money mobile. Besides, the perceived security improved to the theory as a critical factor in electronic transactions in term of authentication, usability, and safety.

Secondly, it delivers new operating definitions will enlarge and improve understanding of the existing variables. This study comes out with new operational definitions on some variables such social-cultural influence and self-confidence which are different from previous existing studies. These definitions might help for exploring the next research, especially in e-money mobile.

Thirdly, the methodology for the data collection and sampling come out ask new contribution which has not been used in many previous studies. Technique multistage cluster sampling and systematic random sampling is new in the area of e-money mobile especially with collect data used the mall-intercept method. For a good sampling frame that is not available or costly, the frame listing clusters are easily obtained. First, the researcher has to selects clusters. Then, the researcher continues to select the individual subjects from each cluster by

systematic random sampling. The researcher can include the entire cluster selected. The advantages of using the techniques are quick and economical to observe clusters of units in a population than randomly selected units scattered over throughout the city. It permits each accumulation of large samples. Besides, enables to obtain information from one or more areas. It can improve and enlarge the existing methodology that is used in previous studies generally. Finally, this study expects to add new knowledge to the academics, practitioners and organizations such banks, insurance companies, airline companies, and the health sector to understand the factors influencing the potential user's behaviour regarding the adoption of technologies services.

## RECOMMENDATIONS

E-money mobile is one of a new product for a payment transaction proposed among the people who look for massive, micro, and quick means for transactions. This research investigates the potential users as the respondents for consumer's usage of e-money in Dares-salaam Tanzania. The distribution of the questionnaire is assisted by representatives to get the response within a limited time.

The scope of the study is limited to potential users who came to the shopping complex in Dares-salaam. This study is not addressed to other places e.g. campus or school, government offices, Bank and etc. Additionally, the limitation corresponds to the general results of the study. The potential user in a shopping complex as the unit of analysis in this study would be difficult to generalize the results to another consumer in different places or public organizations. Besides, the methodology followed a cross-sectional research design proposed the hypothesized relationships at a single point in time. However, the psychological human aspects would change from time to time.

Similar to the research design was conducted in quantitative research methods. The respondent's answers may be influenced by the biased perception of the situation. It happened because of the scale that is used Likert scale can make their perception. Finally, another important limitation of this study is limited to previous studies overcome the same factors in Tanzania. Besides, the examination of the relationship of this research constructs in the context of Tanzania has been few previous studies and lack of availability. As well as future research should incorporate more variables and samples in the study while the consumers are quite homogeneous in nature. In addition, this study can highlight other relevant variables to explain the usage of e-money. Besides, the study can be considered as a generalized approach to explore on e-money. Thus, the researchers can develop this issue in another setting. Firstly, the next study is suggested in a different scope. Besides, the methodology should design in another time of study e.g. longitudinal study to lead for more accuracy. Moreover, the different research design e.g. mixed quantitative and qualitative) are recommended for future study. Hence, the next researchers should continue the study in finding to be explained more.

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