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Trends and challenges of m-commerce using mobile money in Tanzania

INTRODUCTION

In the last few years, there has been a massive growth of wireless technology in Tanzania. The m-Commerce which stands for Mobile Commerce, was originally introduced in 1997 by Kevin Duffey at the launch of the Global Mobile Commerce Forum, to mean, ‘the delivery of electronic commerce/ transaction capabilities direct into the customer’s hand, anytime and anywhere, via wireless network technology (Kaur, 2015). M-Commerce is the buying and selling of goods and services over the internet through wireless technology like as mobile phones. Although a large volume of literature is available on mobile commerce, the topic still is under development and offer potential opportunities for searching especially in developing countries context.

This study will focus on mobile Money which is one of the m-commerce methods that mostly involve money transactions made using a mobile phone looking on its trend and challenges faced by this service.

The number of internet users in Tanzania rose by 16 percent at the end of 2017 to 23 million, with the majority of those using their handsets to go online, the Tanzania Telecom Regulator (TCRA) said Mobile phone users have surged in Tanzania and other African countries over the past decade, due to the launch of cheaper smartphones and data services. Around 19 million mobile users in Tanzania accessed the world wide web last year through their mobile phones, up from 18 million in 2016, the state-run Tanzania Communications Regulatory Authority (TCRA) said in a report. Internet penetration in the nation of around 52 million people ticked up to 45 percent in 2017 from 40 per-

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cent a year before, according to the TCRA report. East Africa's third-biggest economy, had 40.08 million mobile phone subscribers last year, down slightly from 40.17 million a year earlier (Ngw'anyakilala, 2018). Major mobile phone operators in Tanzania include Vodacom Tanzania, a unit of South Africa's Vodacom, Tigo Tanzania, which is part of Sweden's Millicom, Bharti Airtel Tanzania, and Halotel, owned by Vietnam-based telecoms operator Viettel. The fast-growing sector has been hit by tighter regulations and a price war among the operators in recent years.

Although the increase in the growth of mobile money expertise in Tanzania is a phenomenon that has been particularly remarkable and welcomed by both the urban and rural users largely because of the prepaid service model. As a result, almost classes of society now have access to financial services as people become increasingly familiar with a mobile-money service system. In fact, mobile technology, is viewed as a payment system or banking channel, has the potential to allow two important questions to be addressed at the same time: on the demand side and on the supply side, it represents an opportunity for financial inclusion among a population that is underserved by traditional banking services (Diniz et al., 2011). The growth of mobile money in Tanzania, and in other east African countries (EAC) in general is phenomenal.

Some of the mobile money services provided by the service providers in Tanzania are as follows such as M-PESA, Tigo Pesa and AirTel Money. There are 6 mobile money providers in Tanzania: Vodacom with M-Pesa (43% market share), Tigo with Tigo Pesa (36%), Airtel with Airtel Money (17%), Halotel with Halotel Money (3%), Zantel with Ezy Pesa (1%), and TTCL (0.04%).

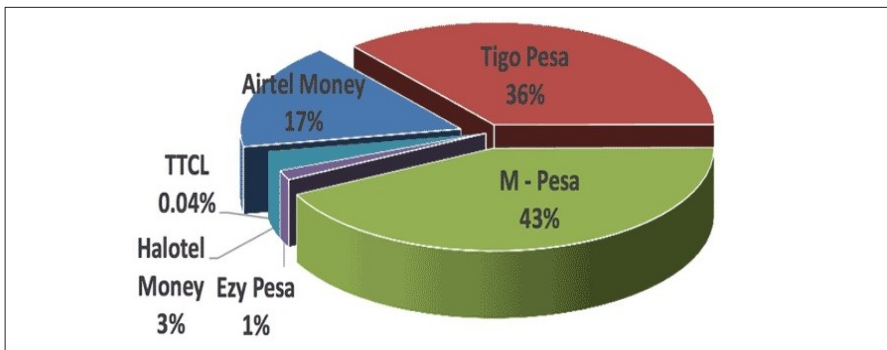


Figure 1. Tanzania mobile market share chart

Source: Tanzania Invest Website.

They all have the same function only the services are provided by different service providers. What this service is trying to do is to create a cashless society with the highest percentage of households using mobile payments, allowing a cheaper alterna-

tive to traditional banking options. It is a fact that this service has now cross-border to other neighbouring countries such as Kenya and Uganda whereby households now can even send fast cash to their relatives who are using the same network.

Although in other part of the world buying with a credit card or accessing your bank account via the phone and making purchases have become a common thing, on the other hand, it is not so common in some part of Africa especially in Tanzania. In a country such as Tanzania, the most common method is via mobile money (the mechanism will be explained in details on the next chapter). The residents in both urban and rural areas have become mostly accustomed to this service making their day to day purchases or sending money to families rather than using the bank service. Until now, it has proven to be the most effective way in Tanzania in comparison to other methods in the financial system. Due to the fact that, there are poor infrastructure in general, thus making it even more difficult for the resident to have the money services in time. With mobile money where by you can just take money anywhere at any time as long as you have a registered mobile phone account has proven to be a very big success. In light of this, this methods also has it setback which of course will be looked at in this study as well.

TRENDS OF M-COMMERCE IN TANZANIA USING MOBILE MONEY

Services such as M-PESA, Tigo Pesa and AirTel Money in tanzania are services that allow registered users to transfer money from their mobile phone to another mobile phone user. Users do not need to have a bank account, they simply register with the communication service provider for an account, bring cash to one of their authorized agents (typically small shopkeepers who sell cell phone top-up cards among other things) who will credit the registered user account with the amount of cash received. The user can use their phone to transfer any part of the balance at any time to another person simply by entering the desired recepient's phone number, the amount to be sent, and a PIN code for securtiy reasons like on bank cards). An application on the user's SIM card instataneously transfer the balance from the sender's register account to the recepient registered account. The user and the recepient receive an SMS confriming the transaction. Typical user include peer-to-peer, transfers(to pay for services, reimburse debts, or send money home), paying bills with partner companies, buying airtime, or simply storing money rather than carrying cash (Jack, Suri, 2011).

Mobile providers in Tanzania began to interconnect their services first with a bilateral arrangement between Tigo and Airtel in September 2014 (with the official commercial launch in February 2015). In December 2014, Tigo connected with Zantel, and in February 2016, Vodacom announced connecting with Airtel and Tigo. By the beginning of 2016 Tanzania was the first country in the world to achieve full interoperability, i.e. the ability of users of different mobile money services to transact directly with each other (TCRA, 2016). International interop-

erability is also a reality in Tanzania thanks to the partnerships of mobile money operators with international money transfer services like MoneyGram and Western Union. Vodacom Tanzania also allows for operator-to-operator international money transfer interoperability through its partnerships with Safaricom in Kenya.

Nowadays, even with use of internet pages such as facebook, instagram, the user goes on line to check on a certain product that they are interested in buying but instead of making payments online with their credit card details, they prefer to call the number on the page and then talk to the owner about their interest and delivery options then make payment through mobile money.

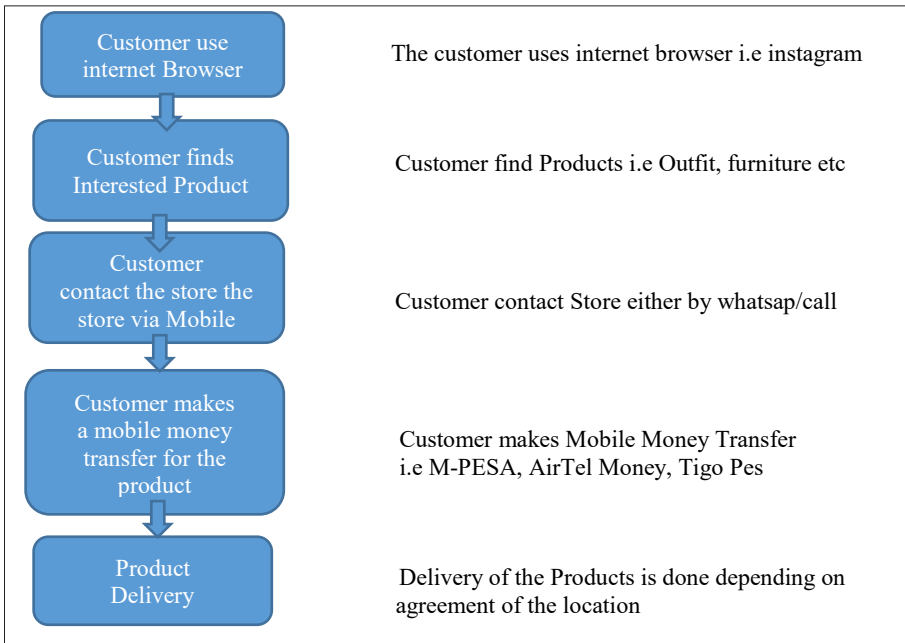


Figure 2. Diagram on purchasing a product using mobile money in Tanzania

Source: Own elaborated.

CHALLENGES OF M-COMMERCE USING MOBILE MONEY

There are vast amount of challenges that are being face by users of mobile money service (Mas, Morawczynski, 2009). The following are some challenges faced by the users of mobile money in Tanzania:

Many people in Tanzania are still not accustomed to any other payment methods except for cash method. Method such as credit card, mobile money are considered to be still risky. Majority consider mobile phones to be insecure and not reliable for payments as other methods such as direct bank transfer.

In interviews, the users have claimed that the greatest challenges in using the mobile money service is as follows:

The user can encounter a challenge such as mistakably overpay for a certain product, unfortunately once done this service is not reversible. Or maybe the user made an ID error, the money will still reach its destination and the number that was an error will still receive an SMS saying that there is an amount of money sent to his number ready for pick up. In both cases, the transactions are irreversible. The sender has no option of reclaiming the amount wrongfully sent or cannot ask for a refund from the network company. In most of the time, the risk lies with the sender which requires him/her to be extra careful when entering the phone number, account number or even the amount to be sent because people have lost money this way.

Most of the time due to network issues the service is unavailable. Moreover, the network does not provide coverage for the most part of the county. In Tanzania, internet connection speeds are slow, network reach is minimal, and the infrastructure is underdeveloped. All of these are driving the ever-increasing demand for the development of digital and mobile payment technology. Some the network services are low or unavailable making the sender frustrated due to the amount of time and energy use to just try to connect to the network. It is even worse when the network comes up partially then drops as the sender may or may not be able to complete the transaction. Sometimes resulting to a user doing double payments thus losing additional money.

On weekends and public holidays the connection does not work that means that the service is just available during the weekdays. If the sender has an urgent matter that requires immediate transfer then it has to be done during weekday's i.e. Monday to Friday. This challenge can lead to processing delays whereby heavy traffic in the system which is poorly designed to accommodate the ever-growing volume of users and transactions.

Delivery of the product can also be an issue due to poor street addressing system since when the client is requesting for a certain product, he/she has to come to an agreement with the seller on where to meet or where to deliver the product. This is also one of the challenges that m-commerce is encountering in Tanzania. Sometime the clients don't give a well-defined address or even some time the seller does not know where exactly he/she has to deliver. This can lead to using a lot of credit phone recharge so that the client can explain exactly where the meeting point is.

Theft is also a big challenge in Tanzania. There are a lot of scammers and goods are never delivered. The client can place an order or service and make a mobile money transfer but at the end of the day he/she does not receive the service that he/she paid for and it is difficult sometimes to track the number down and who it belongs to.

M-commerce in Tanzania still have many challenges ahead. The natural concerns of security, a multiplicity of devices and operating systems, slow adoption, and the technological limitations all contribute to the obstacles facing mo-

bile payments, today. But they are being successfully overcome through careful planning, education, marketing, and by choosing the right payment service provider as a partner.

In recent years, banks and mobile companies have entered in agreement thus interlink bank account with the mobile money account. Users are allowed to transfer money from their bank account to their mobile phones and vice versa. But this movement has shown to be risky especially to the users as they are the ones who bear the risk. In many instances, users rather are found in tricky situation where on which money has already left the mobile money account and not recognised in the bank account or left the bank account and are not recognised in the mobile money account. The tracking of this money has always been a bother to the users as both part will reject to take responsibility for such money. For the account that money was transferred, will stick to the argument that the money has already left their account, and for the recipient will also stand firm on argument that the money has not been recognised in their system. This always leave a confused user who is not sure to where his/her money is at all.

DISCUSSIONS AND SUGGESTIONS OF USING MOBILE MONEY IN TANZANIA

In order for mobile money service to be able to function properly a better solution concerning security has to be implemented. In case whereby money is lost after an error has been done while registering the phone number of the receiver, more control of these numbers has to be done. Solutions such as the government has to help this program by making sure that all numbers in the country are registered by an official ID and in cases of loss of a number then the user has a responsibility to go and report the lost number especially those that are not registered so that the number can be blocked.

But the study has also discovered that before any solution has been implemented, the people have to be exposed to awareness programmes so that they can understand why it is important to have the numbers registered and that it is for their security. The programmes should also teach on the proper way of using mobile money on commercial purposes and how to overcome the risks that can lead to money loss. It is also important that the people understand why it is important to own an official ID and that it is their rights. It is not common for Tanzanians to own a passport unless they are travelling abroad due to the fact that the nearby countries don't require passport but an official letter to cross-over. It was from the last governance that they started making resident cards for both citizens and foreigners. So generally, the user did not have any form of official document apart from a driving license which just a few have

due to poverty of even being able to own a car. But in the last few years we have seen some evolution in the country whereby awareness has been started to be implemented and the mobile users in the villages know how some mobile money function works and can pay their bills due to distances from home to the banks.

The issue of theft of products once the transaction has been made can also be eradicated with the above solution of making sure that all numbers in the countries are registered and controlled. Also an addition, the government should help in the proper city planning whereby the addressing system is precise and the clients and the seller will not encounter and big challenge to meet so as to deliver the product. This will also reduce the cost of mobile phone calls that have to be made so as to guide the person delivering the good so he/she cannot get lost.

Also, the service providers should invest in good infrastructures and good technology so as have better coverage in order to reduce the issue of unavailability of the network. The service providers should invest in innovation on how to solve this problem as will all know that people buy and sell products all the time regardless of the time or the day online and in order for the Tanzania to make a purchase then the service has to be available and running smooth all the time. The issue of the service to not available in the weekends also has to be eliminated. For some areas, this is not due to network issues but rather management issues and the service providers need to eradicate this problem because just like any other day, the weekends also the community would need to use to this services in case of emergencies such as sickness or family or even wanting to purchase a product that is crucially needed by the user.

CONCLUSION

Though studies have been conducted on mobile money development research, on a number of issues on mobile money services is missing. While mobile money services in Tanzania has been made possible to penetrate especially in rural areas where access to banks is minimal, the adoption of mobile money programme is believed to be the most viable option for encouraging rural population to save and pay their bills while at home. Many of the characteristics that make mobile money so promising in scale and impact, its varied uses, and the novelty of its role are also reasons for achieving financial inclusion and this restores hopes of saving for the future generation. Although far from the only mechanism, mobile is certainly one of the most powerful means by which to realize this promise. Though mobile network providers are highly applauded for its effective implementation, it is however, not clear whether it will continue rendering quality services in the future as its network sometimes is not accessible to the users of mobile money services.

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Summary

This paper shows the trends and challenges of mobile commerce that are faced in Tanzania. Until 2018, the most commonly used form of mobile commerce in Tanzania is Mobile Money. In this study, we have interviewed vendors using mobile commerce in Tanzania, in order to understand how they use mobile money and the challenges they face. Also, we studied telecommunication provider’s websites to show the trend of this particular service. The findings of this paper show how the customer goes to social media and search for a product and then buy it using mobile money. Additionally, delivery of the product depends on mobile communication whereby the customer has to provide the specific location due to poor home address system. Main challenges identified in this study are network issues such as poor network connection and lack of trust due to re occurring of the theft incidents. The study gives suggestions of the use of more innovative ways that can reduce the setbacks that this particular system is facing.

Keywords: innovation, mobile money, m-Commerce.

Trendy i wyzwania m-handlu wykorzystującego pieniądz mobilny w Tanzanii

Streszczenie

W artykule przedstawiono trendy i wyzwania związane z handlem mobilnym w Tanzanii. Najczęściej używaną (do 2018 roku) formą mobilnego handlu w Tanzanii był Mobile Money. Przeprowadzono wywiady z dostawcami handlu mobilnego w Tanzanii, aby zrozumieć w jaki sposób wykorzystują oni pieniądz mobilny i określić wyzwania, przed którymi stoją. Zbadano także strony internetowe dostawców telekomunikacyjnych, aby wskazać tendencje dotyczące tej usługi.

Otrzymane wyniki badań pozwoliły określić, w jaki sposób klient dociera do mediów społecznościowych i szuka produktu, a następnie kupuje go przy wykorzystaniu mobilnych pieniędzy. Zauważono, że dostawa produktu zależy od jakości komunikacji mobilnej i prawidłowej lokalizacji miejsca dostawy, co jest utrudnione z powodu złego systemu adresów w Tanzanii.

Główne wyzwania zidentyfikowane w tym badaniu to problemy sieciowe takie jak niska jakość połączeń sieciowych i brak zaufania z powodu pojawiających się kradzieży. Artykuł zawiera sugestie dotyczące zastosowania bardziej innowacyjnych sposobów, które mogą zmniejszyć trudności, z którymi boryka się ten konkretny system.

Słowa kluczowe: innowacja, pieniądz mobilny, m-Commerce.

JEL: L14, L15, L81, O32, O33.