

EFFECT OF COST AND EASE OF USE OF USING THE MOBILE MONEY TRANSFER SERVICE ON TRANSACTIONAL LEAD TIME OF SMALL AND MEDIUM SCALE ENTERPRISES (SMEs) IN ELDORET, KENYA

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Abstract

The study was guided by the following objectives; to investigate the effect of cost and ease of use of using the mobile money transfer service on the transactional lead time among small and medium sized enterprises. The study adopted descriptive research design sampled 41 SMEs to be represented by 41 proprietors and 213 staff. Questionnaires were used to collect data. The data was deemed reliable when the Crobach's coefficient gave value 0.7. Findings from multiple regression showed that The findings found that that ease of use has a positive and significant effect on transactional lead time, however, transaction cost negatively and significantly affects transactional lead time. The study concludes that use of mobile financial services have enhanced transactional lead time. It is therefore necessary for mobile phone companies to ensure that the issues related to cost are addressed by ensuring that the cost of initial purchase price (handset fee), ongoing usage cost (subscription fee, fee service and communication fee), maintenance cost and upgrade cost are lowered to attract more customers.

Keywords: Transactional Lead Time, Ease of Use, Utility, Transaction Cost, SMEs

INTRODUCTION

The current business environment is getting more competitive especially with the advancement of new technologies. The recent emergence of the wireless and mobile networks has resulted in a new platform known as mobile financial services which is beginning to catch the attention of the business community. Khraim *et al*, (2011) stated that technology is a vital element in the

competitive landscape of the financial services industry especially when a firm wants to increase its market share and satisfy its customers. As a result of these new advancements many companies have always strived to improve themselves by creating better products and services for their customers in order increase customer satisfaction (Wei *et al*, 2009). Mobile phones are used by billions of people around the globe including the poor by providing an unprecedented opportunity for financial development and access, and are set to become a common tool for conducting financial transactions in the near future (Chatain *et al*, 2008). Mobile Money Transfer (MMT) services are financial transactions effected by use of a mobile phone (Allen, 2003). Popularity of MMT services is attributed to low cost of transfers relative to alternatives, confidence in the system , speed of transfers and the convenience of a widespread agent networks handling cash-in/cash-out functions (Kimenyi and Ndung'u, 2009).

Today, unbanked population can securely transfer funds, pay bills, open bank accounts, withdraw cash and even access basic insurance products using mobile phones. An example of a basic insurance product is the collaboration between Safaricom Limited and Britam Company in offering affordable health services to the public through the 'Linda Jamii' product. Companies with millions of customers and broad distribution channels like banks, mobile phone operators, retailers or on-line brands have an opportunity to participate in the high margins by embracing viable mobile financial services. Among the financial services that can be enjoyed by these players are domestic and international money transfers, deposits and withdrawals, bill and retail payments, payroll services, loan disbursement, repayments and stock exchange trading and even electronic currencies. The advantages of MMT services which has been witnessed includes low infrastructural requirements, competitive advantages like low costs, increased convenience, small transactions cost, security features and the ability to make cross-border remittances (Kleijnen *et al*, 2004).

From the above literature, there is clear indication that the technology acceptance model (TAM) variables (perceived ease of use and perceived usefulness) have been tested among other variables. In addition, most of these studies have been carried out based on behavioural intention toward acceptance and /or adoption of new technologies. However, studies on factors affecting actual behaviour of adoption or usage have not been clearly shown (Drennan and Wessels 2010).

Kenya is currently recognized globally as the world leading country in terms of MMT services (Mas and Ng'weno 2012). It is a market dominated by M-PESA, the service operated by incumbent mobile operator Safaricom. The M-PESA product was launched in the year 2007 and now is the dominant MMT service. It has experienced phenomenal growth since its inception. The success of MMT services such as M-PESA in Kenya has exceeded

expectations, with greater numbers of formal financial sector actors taking notice (Liu *et al*,2003). M-PESA's initial goal was to acquire 200,000–250,000 subscribers in the first year. Instead, it achieved that goal in just four months. In fact, M-PESA attained 10 times the original goal in one year, registering 2 million customers. Currently, there are 19 million registered M-PESA customers of whom 12 million customers are active every 30 days and are able to cash in/out at some 80,000 locations across the country (Kyla 2013).

Kenya's MMT service market is set for unprecedented competition following the entry of three newly licensed operators; Equity Bank's subsidiary Finserve Africa, Zioncell Kenya an affiliate of Mobile Decisioning; a company that provides a range of mobile payment services and Mobile Pay which owns MMT platform Tangaza Pesa. The firms will ride on communications infrastructure of existing mobile network operator Airtel. They would provide cellular mobile services to end users like customer registration, SIM cards issuance, billing and customer care (CAK 2014). Banks are also launching mobile banking and payments capabilities such as Equity Bank Eazzy 247 service and Kenya Commercial BankMobi-Bank, supported by the spread of thousands of banking agent shops. Currently, other competing MMT services in Kenya include Airtel Money and Orange Money. They all struggle to gain the widespread acceptance that is enjoyed by Safaricom's M-PESA.

SME industry is changing rapidly due to the development of new technologies and competitive markets. As a result, mobile financial services providers are trying to offer their customers not just anytime financial services but anywhere-anytime financial access through appropriate application of developments in the information technology area. All these advancements are primarily aimed at providing better and more innovative services to customers so as to increase customer satisfaction. Customers use MMT services due to benefits such as easy access to finances, low transaction cost, time saving and convenience. However, firms competing in the same market exhibit differential growth in terms of customer base and distribution networks yet they are serving the same clients or market, In addition, 40% of the Kenyan population have not embraced the use of mobile financial services particular to the less educated and those from rural areas (Aker and Isaac 2010). MMT service providers are putting more effort in satisfying customer needs whereas customers are demanding better and improved services from service providers.

The researcher therefore hypothesised that;

Ho₁: Perceived ease of use of MMT service has no significant effect on transactional lead time among small and medium sized enterprises

Ho₂: Perceived financial cost of MMT service has no significant effect on transactional lead time among small and medium sized enterprises

THEORETICAL FRAMEWORK

Innovation is defined as an idea, practice or object that is perceived as new by an individual or another unit of adoption while diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers, 1995). Diffusion of innovations theory seeks to explain how, why, and at what rate new ideas and technology spread through cultures. The theory proposed 4 major elements that influence the spread of a new idea which includes innovation, communication channels, time, and a social system. This means that diffusion is the process whereby an innovation is communicated through certain channels over time among the members of a social system. The theory also explains the stages in which individuals progress through in adopting technology such as knowledge, persuasion, decision, implementation, and confirmation and so if the innovation is adopted, it can be spread via various communication channels. The theory further shows that there are characteristics which influence the rate of technology adoption to those people with the system. These features are relative advantage, compatibility, complexity, trialability and observability.

The diffusion process of innovation is also explained through 5 groups of adopters namely; innovators, early adopters, early majority, late majority and laggards. The underlying assumption on diffusion of innovation is that a new idea is adopted very slowly during the early stages of its diffusion process. Then, as the innovation is perceived relatively advantageous by its early adopters, its rate of adoption rises when the early adopters share the favourable experiences regarding the innovation with potential adopters. The implication of the theory in the study was that when customers perceive that using mobile financial services as simple, they tend to adopt it. Therefore, innovations that are simpler to understand are adopted more rapidly than the innovations that require the adopter to develop new skills and understandings. In addition, when the customers perceive that using mobile financial services speeds up financial transactions, improves the quality of financial transaction, makes financial transaction and services easier, gives greater control in financial transactions and enhances financial activities, then their usage intention increases.

Ease of Use on transactional lead time among small and medium sized enterprises

Perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). He found to be an antecedent to usefulness rather than a direct determinant on customer satisfaction from his regression analysis results. An individual's perception of mobile phone as easy to operate will lead to automatic customer satisfaction. Leong and Viehland (2007) found that most New Zealand respondents (56%)

perceived mobile payments to be easy or very easy to use. However, if customers perceive mobile phone to be complex, then customer satisfaction will be very low. The small size of mobile devices including small screens and tiny multifunction keypads may be troublesome to use and impair the usability of mobile banking service. This was witnessed by Laukkanen, (2007) who found that some bank customers consider bill payment via mobile phone to be difficult and time consuming as the device enables only a limited amount of information processing and hence the whole bill is not visible on the display inhibiting the progress in the service process.

Perceived ease of use determines the behavioural intention towards adoption of new innovations. This is shown by Wang *et al*, (2003) who found a significant effect of ease of use on behavioural intention to use internet banking. Similarly, Perceived Ease of Use (PEOU) was found to have positive relationship to customer satisfaction mobile banking (Cheah *et al*,2011). It also resulted in a medium effect size from the framework applied to mobile banking users (Puschel *et al*,2010). In addition to that, simplicity was found significant and positive only for computer banking according to (Kolodnisky *et al*,2004). Moreover, a comparative study of consumer's intention to use mobile internet in USA, Russia and china by Vatanparast and Qadim (2009) showed that positive correlation between perceived ease of use and behavioural intention was supported in those countries. Dass and Pal (2011) suggested that by ensuring ease of use of the offered service in terms of technology and financial products, it would be an important factor in customer satisfaction as regards MMT.

Attitude plays a major role in an individual's mind as far as simplicity of a new system is concerned. This was demonstrated by Beiginia *et al*, (2011) who revealed that ease of use among other factors plays an important role in customer satisfaction in the adoption of mobile banking. However, (Kumar and Ravindran 2012) found that perceived ease of use was not significant factor but rather it represents cognitive beliefs formed by second hand information and as well shows insignificant effect on consumer intention to use m-commerce (Wei *et al*,2009). Therefore, it was hypothesized that perceived ease of use has no significant effect on the customer satisfaction of mobile financial services.

Financial Cost on transactional lead time among small and medium sized enterprises

Price/cost is one of the single most important factor that influences consumer adoption of innovation (Alam *et al*,2009). Cost factor may consist of initial purchase price (handset fee), ongoing usage cost (subscription fee, fee service and communication fee), maintenance cost and upgrade cost (Lin and Luarn, 2005). Perceived Financial Cost (PFC) with reference to adoption of mobile financial services relates to cost of availing the services to customers, time

saving subscription fees. Therefore, the lower the transaction charges as well as subscription fees the higher the rate of adoption.

Pagani (2004) stated that price or cost factor was one of the main determinants of 3G services adoption. Anil *et al*, (2003), also stated that cost is one of the factors influencing the adoption of m-commerce in Singapore. In addition, (Wei *et al*,2009) argued that perceived cost is one of the barriers in customer satisfactions in Malaysian.

Kimenyi and Ndung'u (2009) argued that the rapid growth of mobile phone banking in Kenya is evidenced by great need for low-cost financial services. The introduction of M-PESA has really changed how people can transact businesses because they need not to go to their bank premises. This has resulted in flexibility of carrying out several transactions at any time anywhere, thus, time and cost saving. In addition to that, (Ng'weno 2010) argued that M-PESA provides a secure alternative to travelling with relatively large amount of cash as well as time saving cost and people can also pay for their electricity bills within moments without travelling to the offices. Marowczynski and Pickens (2009) found that urban users of M-PESA adopted it because it is cheaper than any other money transfer options.

Transaction speed safes customers' time especially with introduction of new technologies. The more customers understands the speed of transactions among other factors, the more positive the attitude will be into the use of mobile banking services (Beiginia *et al*, 2011). Poon (2007), found that 89 percent of the respondents agreed that the prices of internet connection were affordable and reasonable, 22 percent strongly agreed that a negligible transaction service fee is charged and also 70 percent agreed that the fees charged for the service is acceptable. Therefore, it was hypothesized that perceived financial cost has no significant effect on the adoption of MMT services.

Summary

Mobile money transfer has been in use in majority of developed countries for many years. Most of the researches have been done on the frequency of use of mobile money transfer services. Other researches have been carried out on particular mobile money transfer services without taking into consideration the diversity of mobile money transfer services that involves so many companies. Developing countries of late have adopted mobile money transfer services technology as a major way of sending and receiving money. Nevertheless researches have been revolving around mobile money users that are not necessarily in business. Actually most of the efforts were more focused in technical features of the systems. Today there's already a concern about understanding that such tool is used by one person, and afterwards to study this person's behavior and characteristics, aiming only the possibility of improvement in the use of

this system. This research aimed at investigating the use of mobile money transfer in developing countries especially in East Africa where the sample population is expected to come from Kenya in Uasin Gishu County. The choice sample population involved entirely business entrepreneurs dealing with small and medium enterprises. The purpose of the study will be to establish the effect of costs, accessibility, security and ease of use of mobile money transfer service on small and medium enterprises in relation to transactional lead time.

RESEARCH METHOD

The study employed explanatory research design to determine the relationships that exist between specific events (Manion and Cohen, 1994). The study employed a sample size of 41 proprietors and 213 staff from these SMEs. The study used random sampling technique. The study employed questionnaires which were distributed to the SMEs managers. Secondary data was collected from existing records and documents relevant to the study objectives such as inventories, vouchers, receipts and delivery notes, government survey reports, libraries and internet. This research yielded a value of 0.84 Cronbach coefficient value. The study employed inferential statistics using regression to find out the significant levels of each proposed factor.

ANALYSIS AND DISCUSSION OF RESULTS

This section entails the analysis of the raw data in response to the objectives of the study. The analysis was eventually interpreted relating the research findings with other researchers in the field of Mobile Money Transfer. Findings showed that industry estimates place the average cost per transaction at 15% of the remitted value, increasing to over 25% for remittances. This cost is driven primarily by the overheads associated with the maintenance and agent incentives of a distribution network. Mobile technology can lower the cost of remittances as it removes the need for physical points of presence and ensures a timely and secure method of transaction.

Table 1: Transactional costs

VE-very effective, E-effective, U-undecided, IE-ineffective, VI-very ineffective

Statement	VE	E	U	IE	VI
High withdrawal charges	15	7	6	6	3
Mobile firm money fines	20	8	3	6	4
High deposit charges	7	4	2	7	21
Hike in transactional costs	21	6	3	7	4

From the findings hikes in transactional costs was the most rampant among mobile service providers totaling to (21-strongly agree, 6-agree). A mobile firm money fine from the mobile operators was another problem facing the small and medium sized enterprises totaling to (20-strongly agree 8-agree). The rest of the factors were on moderate levels. While cash out is still important in an e-cash model, the addition of bill payment and mobile top-up as product offerings which allows consumers to access a greater services without the need to cash-out. The long-term benefits of a unified approach involving mobile are tremendous. This study sought to investigate the effect of mobile money transfer in relation to the transactional cost. The results indicate high mobile firm money fines to be severe with a total of 20(48.8%) complaining of high fines. This could be detrimental to the adoption of SME operators in the usage of mobile money transfer services.

Ease of Use

The results regarding this were summarized and presented in Table 2. The findings in Table 2 indicated that although the respondents agreed with the fact that they find mobile financial services system easy to use, mean (4.23) and standard deviation (0.735), the instructions in the mobile financial services system are clear and understandable, mean (4.22) and standard deviation (0.788), that they can learn to use mobile financial services easily, mean (4.15) and standard deviation (0.9), they failed to decide on the fact that they find the mobile financial services website as user friendly, mean (3.75) and standard deviation (0.979). This might be attributed to the fact that the respondents do not usually utilize the mobile financial services website and not necessarily that they use it. The skewness value for all the factors was negative which indicated that although the responses were significant, they were below the mean values indicated.

Table 2: Perceived Ease of Use and Customer Satisfaction

	Mean	Std. Deviation	Skewness
I can learn to use mobile financial services easily	4.15	0.900	-1.305
Instructions in the mobile financial services system are clear and understandable	4.22	0.788	-0.890
I find mobile financial services system easy to use	4.23	0.735	-0.782
I find the mobile financial services website as user friendly	3.75	0.979	-0.430
Perceived ease of use	4.10	0.613	-0.967

Regressing analysis (Hypothesis Testing)

The value of R-square of the model was 0.454 which indicated that the model contributed 45.4% of the total variation in customer satisfaction (adjusted $R^2 = 0.454$). This represents less variation than expected although the model was shown to be significant considering F-value of 164.14 with a p-value of 0.000 at α value of 0.05 (Table 3).

Further, the findings showed that perceived ease of use was significant with a p-value of 0.000 considering the standardized coefficients where the t-value was 6.891 which showed that perceived ease of use contributed over 6.9 the amount of variation contributed by the error due to it. The value of β_1 was 0.108 showing that with each unit increase in the perceived ease of use, there is 0.108 increase in transactional lead time. These findings indicate that we reject the hypothesis stating that ease of use has significant effect on transactional lead time. Ease of use of mobile money transfer had moderate but significant effect while security of mobile money transfer had borderline significant relationship with transactional lead time of small and medium sized enterprises after controlling for the effects of ease of mobile money transfer and accessibility of mobile money transfer.

The value of $\beta_2 = -0.165$ (p-value = 0.001 which is less than $\alpha = 0.05$). This implies that we reject the null hypothesis stating that there is no significant relationship between perceived cost and customer satisfaction. This indicates that customer satisfaction decreases by 0.769 units with each unit increase in perceived cost. In addition, the effect of perceived cost is stated by the t-value = -13.261 which implies that the effect contributed by the estimated parameter related to perceived cost is over -3 times that contributed by the error associated with the parameter. Cost is driven primarily by the overheads associated with the maintenance and agent incentives of a distribution network. Mobile technology can lower the cost of remittances as it removes the need for physical points of presence and ensures a timely and secure method of transaction. From the findings, hikes in transactional costs was the most rampant among mobile service providers.

Table 3: Regressing analysis (Dependent Variable: Transactional lead time of SMEs)

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.604	0.074		8.187	0.02
Cost of mobile money transfer	-0.716	0.054	-0.769	-13.261	0
Ease of use of mobile money transfer	0.12	0.017	0.108	6.891	0.021
R Square	0.454				
Adjusted R Square	.0454				
F	164.14				
Sig.	.000a				

CONCLUSION AND RECOMMENDATIONS

From the research findings, it was shown that ease of use has a positive and significant effect on Transactional lead time of small and medium sized enterprises. From the findings, respondents found it easy to use mobile financial services. Also, the instructions in the mobile financial services were clear and understandable to the respondents hence they were able to learn how to use MMT. The user friendliness of the mobile financial services website was also an added advantage. Consequently, there was heightened customer satisfaction through the ease of use of technology and financial products and mobile payments.

Similarly, perceived financial cost of MMT service was also found to have a positive and significant effect on Transactional lead time of small and medium sized enterprises. Precisely, mobile phone financial service was found to be time saving. The cost of acquiring mobile phones was affordable though respondents were not sure if the low subscription fees was the reason as to why they used mobile phone services. There is evidence that the use of mobile phones in financial services has increased due to low-cost of financial services.

As evidenced in the study results, perceived ease of use has a positive and significant effect on Transactional lead time of small and medium sized enterprises. It is therefore utmost necessary for MMT providers to formulate clear and understandable instructions on how to use the financial services. User friendliness of the financial services website could also be enhanced. Furthermore, ease of use of technology and financial products will also enhance Transactional lead time of small and medium sized enterprises.

Moreover, perceived financial cost of MMT service was also found to have a positive and significant effect on Transactional lead time of small and medium sized enterprises. Thus, there is need for mobile phone companies to ensure that the issues related to cost are addressed by ensuring that the cost of initial purchase price (handset fee), ongoing usage cost (subscription fee, fee service and communication fee), maintenance cost and upgrade cost are lowered to attract more customers.

More elaborate research is necessary to accurately establish the effects of MMT services on Transactional lead time of small and medium sized enterprises. For instance, aspects such as characteristics of customers, such as their background which include income and sizes of households should be included by other scholars. This would enable the service providers to develop services that can effectively and efficiently cater for the needs of the various cadres of potential users and thus expand their market niche

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