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Contribution of Mobile Money Payment Services on Profitability among Small and Medium Scale Enterprises in Eldoret Municipality, Kenya

Joan Chirchir[1*] CPA Robert Silikhe Simiyu[2]
1. The Catholic University of Eastern Africa, PO box 908-20100, Eldoret, Kenya. CellPhone
2. School of Business and Economics, Masinde Muliro University of Science and Technology, P.O. Box 190-50100 Kakamega, Kenya

Abstract
The purpose of the study was to establish the contribution of mobile money payment services on profitability of SMEs in Eldoret Municipality. This was necessitated by the fact that mobile money payment service is driven by the need to have an easy and quick way of paying bills and avoiding long queues. The theoretical foundation of the study was based on the Technology Acceptance Model and employed descriptive survey research design to target users and 58 SME managers. Questionnaires were used to collect primary data. To establish reliability of research instruments, the Cronbach's coefficient alpha was used whose figure stood at 0.712. Data was analyzed using descriptive and inferential statistics and presented using tables. The results show that: Accesibility (β=.393, t=5.968, p<0.000), convenience (β=.193, t=2.593, p<0.004), security, (β=.324, t=4.383, p<0.000), and flexibility, (β=.352, t=5.129, p<0.000), had a significant influence on SME profitability. The study therefore recommends: SME management should embark on a proactive and robust marketing plan in conjunction with mobile money payment service providers to create awareness of the benefits of the program. The m-banking service providers should embark on customer education on the usefulness of integrating other m-banking options like saving, credit/debit alerts, bill payments and financial services like share trading. They, in conjunction with CCK, should urgently endeavor to make mobile money payment service more secure to alleviate customers' fears and make mobile money payment service more effective. The m-banking service providers should further introduce user friendly interfaces and simple guidelines that would enable users to learn more creative uses of mobile money payment service through their phones.
Key words: Mobile Money, Lipa na m-pesa

1. Introduction

Mobile banking, or M-banking, is the term used to describe financial services delivered via mobile networks using mobile phones (Hughes *et al*, 2007). Normally, such services include depositing, withdrawing, sending and saving money, as well as making payments. If a laptop and an Internet connection is used, it is referred to as internet banking, (Hughes *et al*, 2007). Banking services using mobile phones (M-banking) have been available in developing as well as developed countries for several years, but it is not until recently that new modalities of applying M-banking have started to diffuse rapidly to previously unbanked people (Basu,2008). In fact according to FSD report (2007) Kenya and South Africa are the two countries that represent the majority of M-banking users in sub-Saharan Africa.

The main driver for the rapid development of M-banking is the new M-banking services particularly characterized by mobile money payment service like *Lipa na Mpesa,* that are less expensive and have a geographical footprint defined by the reach of mobile networks. This is in contrast to services offered by cash payments and through traditional retail bank branches that are out of reach for many people in rural areas from both an economic and geographical perspective (Porteous and Wishart, 2006). The mobile phone penetration in Kenya lies between 70% and 80% showing a robust penetration necessary for customer usage (CCK, 2013), making the mobile money payment services available to a majority of the population.

The main benefits to users include affordability, speed and security of transactions (Helms, 2007). The topic is interesting as M-banking access amongst previously unbanked groups is believed to have a direct, positive effect on users, positively affecting a transition from informal to formal transactions and hence alleviate poverty and add lubricant to the overall economic development machinery. Mobile money payment service is increasingly seen as the new tool to pay for services (Helms, 2007).

Mobile money payment service has given access to products that result in increased safety and reliability, as well as real savings in time and money and consequently it may improve profitability. Further, Mobile money payment service offers a lot of convenience and flexibility as one could borrow someone else's phone handset, insert his own SIM card and either send or withdraw money. The habit of using someone else's bank account or SIM card means that access is actually higher for certain segments of the unbanked (Safaricom, 2009).

Mobile money Transfer platforms like M-Pesa by Safaricom, Orange Money by Orange and Airtel

Money by Airtel enable people to access money through mobile phones, something that has been particularly useful for people in rural and slum areas where banks are few and far between. More recently these platforms have increased innovation in the payment of bills and other transactions in SMEs (Masese, 2011). As earlier said, one such platform is the Lipa na Mpesa service. Njenga (2010) says that the pent up demand for an affordable and reliable way of holding and paying money while ensuring that risk levels are consigned to a minimum is consistently unfolding. A system with the potential to obliterate the historical hurdles of cost and free access which have for a long time stood in the way of willing partakers of customer services evokes immediate attention and interest. The unprecedented uptake of mobile phone banking services and particularly Mobile money payment service in Kenya is a testament to this fact.

The Mobile money payment service markets that show high growth rates are driven by such explicit demand; e.g. M-Pesa in Kenya. Whether Mobile money payment service will support profitability is not hitherto verified by the existing pool of evidence (Gamos, 2007). Kresbach (2008) adds that the motivation to invest varies, but short-term profits are not a pivotal driver. Marking future territory, lowering churn rates (the frequency by which a mobile operator's customers change operator), and strengthening the brand are a few possible motives for offering a service with seemingly low rates of return (CGAP, 2006). While substantial studies on drivers of M-Banking have been done (Kresbach, 2008; Hughes *et al*, 2007), very little had been done on contribution of Mobile money payment service on profitability in the Kenyan context.

1.2 Problem

Around the globe, various initiatives use the mobile phone to provide financial services to those with a need to get services faster, reliably and conveniently. This has been made clearer in Kenya with the introduction of M-Pesa services run by Safaricom and banks offering the services to its customers, now in conjunction with many other M-banking providers. Mobile money payment service is further driven by the need to have an easy and quick way of paying bills and avoiding long queues. However, Anyanza (2008) suggests that Mobile money payment service in Kenya seems to be driven mainly by speed and convenience of transaction rather than the deep need to increase business profits. How mobile money payment service affect profitability in both the short term and long term remain uninvestigated.

Further, the fact that most users are propelled by the need to simply deposit and withdraw money using their phones, paying bills among others while businesses seem to not get any return for the convenient service (CGAP, 2012). It is however agreed that Mobile money payment service when strategically marketed and utilized can improve profits (Helms, 2007). While substantial studies on drivers of M-Banking have been done (Kresbach, 2008; Hughes *et al*, 2007); very little has been done on the contribution of mobile money payment service on business profits in the Kenyan context hence the reason for this study.

1.3 Research questions

The study was guided by the following research questions:

i. How does accessibility of Mobile money payment services affect business profitability?
ii. Does convenience in the use of Mobile money payment service affect profitability?
iii. What is the effect of security of Mobile money payment service on business profitability?
iv. How does the flexibility of Mobile money payment service influence business profitability?

2.0. Literature

2.1 Technology Acceptance Model

This study was embedded in the Technology Acceptance Model (TAM), Davis (1989). TAM is a model that attempts to explain or predict users' acceptance and consequent use of new technology. It is essentially an information systems theory that has found its way into most technology systems used in many businesses. There are two important aspects of this theory, the Perceived Usefulness (PU) that Davis (1989) said is the degree to which an individual perceives the benefits of using a particular system, and Perceived Ease-of-Use (PEOU) that considers the user perception of the effort needed to use the system as whether easy or complex (Davis 1989).

TAM is considered an influential extension of Ajzen and Fishbein's (1988) Theory of Reasoned Action (TRA) and was first propagated by Fred Davis and Richard Bagozzi (Davis 1989, Bagozzi & Warshaw 1992). TAM is a modern and contemporaneous replacement of TRA's attitude measures; it has added the two technology acceptance measures— *ease of use*, and *usefulness* which has been earlier discussed. TRA and TAM, both of which are awash with behavioral elements, are premised on the idea that limitations are reduced as technology is effectively used (Bagozzi & Warshaw 1992).

M-Banking and particularly the mobile money payment service is one such technological innovation that has elicited interest from the many users especially in Kenya through Lipa na Mpesa. The perceived usefulness by the users and ease of use, that go hand in hand with security, affordability, accessibility and convenience and how they influence profitability are the factors being studied.

2.2 Empirical Review

2.2.1 Mobile Money Service

Mobile money refers to services operated and performed from a mobile device such as mobile phone, credit or debit cards. It is further clarified as the intersection of both banking and telecommunications services (World Bank, 2010). It involves a diverse set of stakeholders from both mobile phone operators and financial service institutions.

Mobile money services have been defined as electronic money accounts that can be accessed via mobile phone (Zutt, 2010). Mobile money services offers secure and convenient means for banked and unbanked people to send and receive money with mobile phones at home and abroad; anywhere at any time. It contains features such as mobile wallet, mobile transfer, airtime transfers and mobile banking. Mobile wallet enables the subscriber to receive, store, send or pay money anywhere any time. Money transfer options means that one can send money from their mobile money account to a different subscriber anywhere anytime, which is similar to airtime transfer, where one can purchase and send airtime to another subscriber within the same network. Mobile banking works closely with banks to provide banking services to subscribers of mobile money.

Earlier documented mobile commercial services include a Philippine mobile operator's launch of SMART money in 1999. By the year 2000, mobile money technology had started to spread to include several other countries. Later GLOBE Telecom launched G-cash in 2004 (Wishart, 2006). Bharti Airtel launched their mobile money transfer pilot project in India in 2007 (Bosi, Celly and Joshi, 2011). Wishart (2006) outlined African networks that provided mobile enabled commerce (m-Commerce) which included MTN banking, CelPay, Fundamo and M-Pesa but the list has grown significantly since then. MTN banking was a collaboration between South Africa Standard Bank and mobile operator MTN. CelPay was a system developed by Celtel and First Rand Bank of South Africa. Fundamo was an m-Commerce software provider in South Africa. M-Pesa from Safaricom was in the pilot phase in only Kenya at the time.

The current mobile money providers in Kenya are Safaricom's M-Pesa, which was introduced in March 2007; Zain's Zap which was introduced in January 2010 but later rebranded to Airtel Money following the takeover of Zain by Airtel, YU-Cash started in December 2009 by Essar while Orange Money's Iko Pesa was launched in November 2010 by Telkom Kenya. M-Pesa is by far the largest accounting for more than 90% of mobile money subscriptions. Since 2007, mobile money usage has grown rapidly. By December of 2010 the estimated value of person-to-person transactions alone exceeded Kenya shillings 38 billion per month, which is more than 20 per cent of Gross Domestic Product (GDP). The number of mobile money customers exceeding 13 million by mid-2010 (Zutt, 2010).

2.2.2 Profitability

Profitability means ability to make profit from all the business activities of an organization, company, firm, or an enterprise (Cleland, 2004). It shows how efficiently the management can make profit by using all the resources available in the market. According to Maylor *et al*, (2006), "profitability is the 'the ability of a given investment to earn a return from its use." However, the term 'Profitability' is not synonymous to the term 'Efficiency'. Profitability is an index of efficiency; and is regarded as a measure of efficiency and management guide to greater efficiency (Maylor *et al*, 2006). Though profitability is an important yardstick for measuring the efficiency, the extent of profitability cannot be taken as a final proof of efficiency. Sometimes satisfactory profits can mark inefficiency and conversely, a proper degree of efficiency can be accompanied by an absence of profit (Maylor *et al*, 2006). The net profit figure simply reveals a satisfactory balance between the values receive and value given. The change in operational efficiency is merely one of the factors on which profitability of an enterprise largely depends. Moreover, there are many other factors besides efficiency, which affect the profitability (Cleland, 2004).

2.2.3 Drivers of M-Banking

The Mobile money payment service is designed to facilitate secure, convenient and low-cost money transfer in both a consumer model (person to person) and enterprise (business to consumer and vice versa) (Maurer, 2008). Porteous (2008) when discussing the factors that influence M-Banking growth postulates four main factors as affordability, security, accessibility and convenience. Of course, there is flexibility, which is mostly tied with convenience. From the consumers' viewpoint, the success of mobile transactions is based on the ease of use, the low cost of services, 24/7 access in all locations and the high levels of security. All this can dramatically improve users' quality of life (Gamos, 2008).

2.2.3.1 Affordability

Porteous (2008) in a study in South Africa using regression results found that financial services are critical for economic development. In order to increase profitability levels, it is essential to provide access to formal financial services for people without bank accounts. Mobile phones can deliver such services via mobile transactions (m-transactions) – financial transactions made using a mobile phone without visiting a bank. M-transactions can offer an answer to the lack of financial-service access prevalent in many emerging markets (Gamos, 2003).

Mobile money payment services are provided by financial institutions in cooperation with mobile operators and businesses. Mobile money payment service is about getting mobile services to the "unbanked" – those who do not have bank access or bank accounts, credits and debits, and those who are at the bottom of the economic pyramid, often living in remote areas. They receive the benefits of mobile phone money payment service such as being able to pay money in a cost-efficient and secure way (Furuholt and Kristiansen, 2007).

The structural constraints on the existing banks in providing low-cost services across wide geographic areas have led to innovative new business models exploiting the transformational impact of mobile telecommunications. Mobile financial transaction platforms are rapidly emerging; such platforms harness the intrinsically lower costs of mobile banking platforms compared to traditional banks and exploit the increasingly wide diffusion of mobile telephones across all socioeconomic groups and geographical areas (CGAP, 2008). Interestingly, the innovation in mobile financial trans-action is occurring in the developing world where the need for access to finance is greatest.

2.2.3.2 Security

Since the birth of the GSM technology, security has been a key part of the rationale behind the standards (CGAP, 2008). Hence SIM ATK includes an encryption mechanism, and in many countries the air interface is encrypted as well. More advanced solutions building on WAP can also be set up to enable a more secure end-to-end environment (CGAP, 2008). Helms (2006) looking at findings in his seminal work adds that data has to be secure, but at the same time quick. You need foolproof 'know your customer' (KYC) systems with an easy-to-use interface". The m-banking ecosystem must be able to conform to KYC and AML (anti-money laundering) regulations. This means being able to authenticate the person doing the transaction, authorize and execute transactions securely in a trustworthy manner and then provide the information to initiating and terminating parties upon completion of the transaction (Helms, 2006, Maurer, 2008). Whatever the technological means – SMS, WAP, GPRS or 3G-based browser – operators play a big role in enabling these services. Operators gather information about subscribers that can be used for KYC. Operators also offer the over-the-air services for verification of customers and execution of transactions (Maurer, 2008). While the operator service with the handset is the facilitator, it is the bank that allows unbanked individuals to become banked customers. While the quick spread of mobile communications does not necessarily guarantee a similar pace for the growth of m-banking, the potential has been shown to exist (Porteous, 2008).

Worldwide m-banking norms have yet to be set. If the regulatory environment is an enabling one, innovative business models and cooperation among industry players will be able to flourish, to the benefit of lower-income consumers (Porteous, 2008). MPESA is one such product that is very simple. A customer registers for the service by providing some basic information such as national ID and date of birth, and has a virtual wallet enabled for them on their SIM. Once enabled, a customer can go into more than 1,200 retail locations and load cash into a virtual wallet on their SIM (Safaricom, 2010).

Vaughan (2009) did a study in Kenya and noted in his findings that appropriate consumer protection against risks of fraud, loss of privacy and even loss of service is extremely critical for growth of m-banking. Risks proliferate further when agents are involved and reach to a maximum. Since a large number of transformational M-Banking clients are first time customers with low financial literacy, the risks become even higher. These risks can be mitigated by entering into mobile banking activities through known and meticulously regulated players and agents. Guidelines regarding privacy protection, network security and complaint redress mechanisms are fundamental as the uptake of Mobile money payment service goes to scale.

2.2.3.3 Convenience

Adams (2010) defines convenience as a position where someone is able to proceed with an action with ease and little difficult. Porteous (2008) in his study in Kenya found that Mobile money payment service users are many because it's easy to use. M-PESA is being used for everything from paying school fees to buying goods and services. Some commercial organizations are also using the service to pay salaries to casual and remote field workers such as truck drivers. Individuals who are nervous about carrying cash are using it to move funds securely and quickly. Money can be sent or received quickly and easily without the hassle of lengthy post office queues. Electricity meters can be topped up at the user's convenience and funds can be transferred to allow the needy to pay doctors' fees or purchase medicines (Anyenze, 2010).

Contrary to the popular wisdom that mobile phone money services are meant for funds transfer and remittance, many users use the service as a savings store. Consequently the visits to the bank only involve those amounts that cannot be effectively undertaken within the deposit and withdrawal limits provided by the service operators (Vaughan, 2009; Njenga, 2010). Users in Njenga (2010) study indicated that they use the facility as a savings account despite the fact that no interest is earned. The reprieve is that no ledger fees are levied on the accounts hence striking a rational symbiotic equilibrium between the user and the service provider.

However, the study raised some pertinent concerns, for instance the study found out that the use of M-banking to pay bills still remains low and its influence on SME profitability is not known. The main instances of bill payment are interpersonal settlements and welfare payments. Probably the usage might increase as users

acquire confidence and precision of utilizing the service (Njenga, 2010).

2.2.3.4 Accessibility

Porteous (2008) says that Internet Banking helped give the customer's anytime access to their banks. Customers could check out their account details, get their bank statements, perform transactions like transferring money to other accounts and pay their bills sitting in the comfort of their homes and offices. However the biggest limitation of Internet banking is the requirement of a PC with an Internet connection, not a big obstacle if we look at the US and the European countries, but definitely a big barrier if we consider most of the developing countries of Africa like Kenya and Tanzania (Gamos, 2003). Mobile money payment service addresses this fundamental limitation of Internet Banking, as it reduces the customer requirement to just a mobile phone.

The main reason that mobile money payment service scores over Internet Banking is that it enables 'Anywhere Anytime' payment (Porteous, 2008). Customers don't need access to a computer terminal to access their bank accounts, now the can do so on-the-go while waiting for the bus to work, traveling or when they are waiting for their orders to come through in a restaurant. Njenga (2010) in his study done in the Kenyan financial services context found out that Mobile money payment service resolves the issues of access to and transfer of finance. This is due to the lower costs of roll-out and the economies of handling low-value transactions realized by leveraging networks of existing third-party agents.

Availability of multiple business outlets across the country implies more points of contact with customers as opposed to the traditional hall set up. Additionally, the flexible operating hours of SMEs leaves them with greater opportunities to satisfy payment requirements that may arise at any time (Vaughan, 2009). On the contrary Kenyan banks operate for an average of seven hours per day. The supplementary Automated Teller Machines (ATMs) do not have a sufficient outreach since they are only available in major towns (Vaughan, 2009) hence mobile money payment services cannot be actualized.

Mobile phone banking is mainly used for money transfer. Transformational M-Banking service users revealed that they typically time their deposits to coincide with bill payments or cash withdrawals. However, Njenga (2010) found out that the 52% and 49% relying on traditional banking while still embracing the transformational banking implies a level of caution on the part of users. Likewise it can be explained by the perceived loss of human touch that comes with technology since some individuals derive higher satisfaction and attach more confidence to service by fellow human beings as compared to technology (Njenga, 2010).

2.3 Gaps.

The reviewed literature shows that m-banking is a strategic tool for financial services growth (Hughes et al, 2007; Helms, 2007). However, the reviewed literature does not create a significant link between mobile money payment service and SME profitability. Further, most empirical literature has dealt with m-banking provision by traditional banks. However, very little has been done on Mpesa and other mobile service providers and particularly Lipa na Mpesa and how businesses have been able to use them to create desirable profitability margins. This study hopes to fill that gap.

3.0 Methodology

This was a descriptive survey research study. According to Cooper and Schindler, (2000) survey research focuses on why and what questions. In answering the `why' questions, the study developed causal explanations. Causal explanations argue that phenomenon Y (Profitability) is affected by factor X (Mobile money payment service). This design was chosen because it applied closely to the research objectives of this study. The dependent variable was Profitability while the independent variables were Mobile money payment service and its driver variables.

3.1 Population, data type and sources

The target population of this study was the 58 SMEs that use mobile money payment service at the Central Business District in Eldoret Municipality identified through a preliminary survey, and their selected customers.

3.2 Data Collection method and data reliability.

Questionnaires were the data collection instruments. Questionnaires were the primary sources of data. We used a five-point Likert scale questionnaires to collect the data from the customers and business managers. A questionnaire is a research tool that gathers data over a large sample (Kombo 2006). The questionnaire was the most appropriate research tool as it allowed the researcher to collect information from a large sample with diverse background; the findings remained confidential, saved time and since they were presented in paper format there were no opportunity for bias. The questionnaire had six parts, the demographic information, business profitability, convenience, security, flexibility and accessibility.

3.3 Data analysis.

Quantitative data was analyzed using descriptive statistics in form of percentages and frequencies. The Social Package for Statistical science (SPSS) software aided in data analysis. Both correlation and regression analyses were used. Correlation was used to test for relationship between the independent variables and the dependent variable while regression analysis was done to show to what degree the independent variables predicted the dependent variable.

4.0 Findings and discussion

4.1 SME Profitability

Part of the study's variable was business profitability. The approximate average gross profit margins were gotten before the SMEs began using mobile money payment service and after. The results are as shown in figure 4.1 and 4.1a.

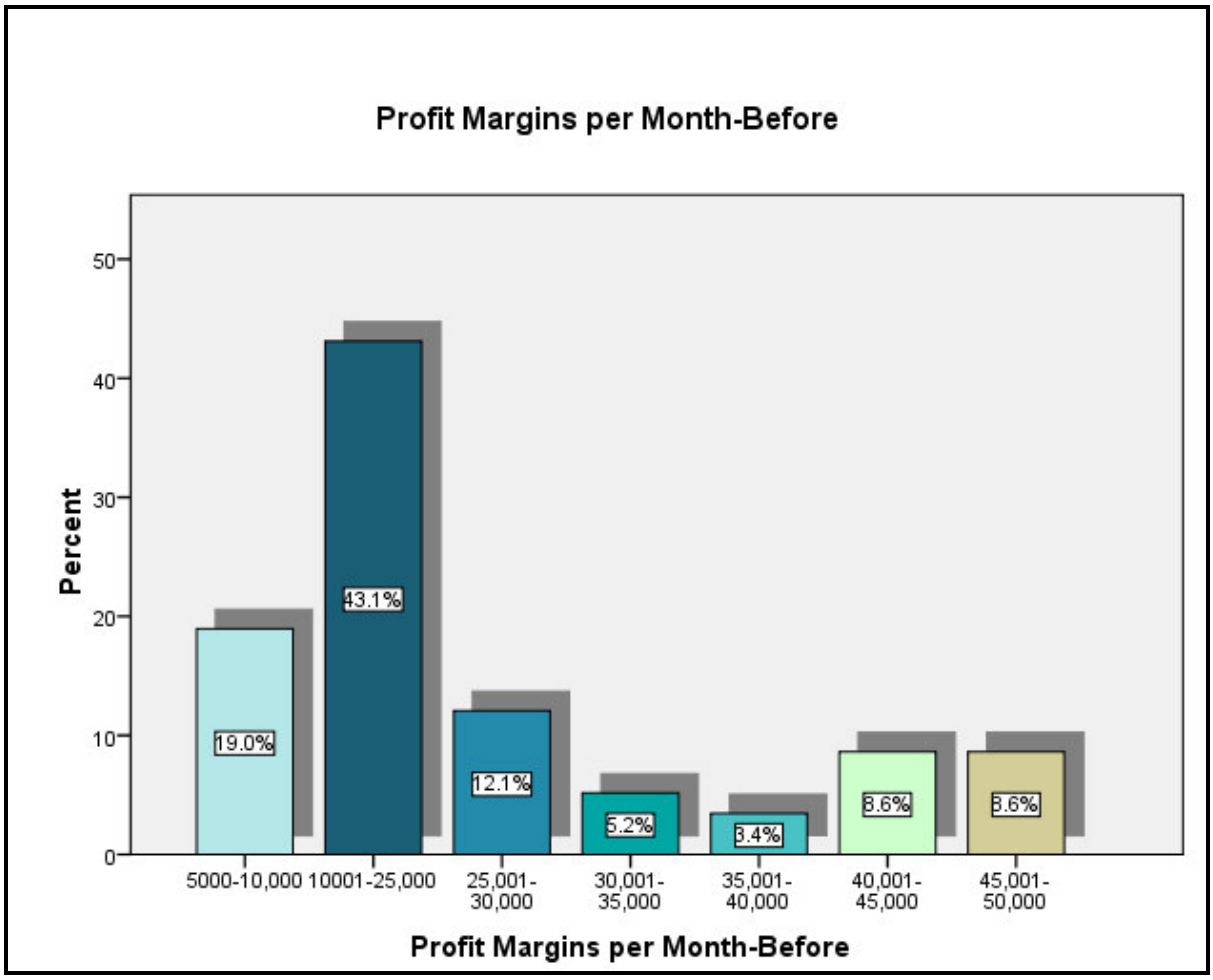

Figure 4.1 Profit margins per month-Before

Figure 4.1 it is clear that many businesses at 43.1% had their average monthly profit margins before they began to use mobile money payment service at 10,001-25, 000 Kshs. This implies that the businesses were carrying a profit albeit marginally in some cases.

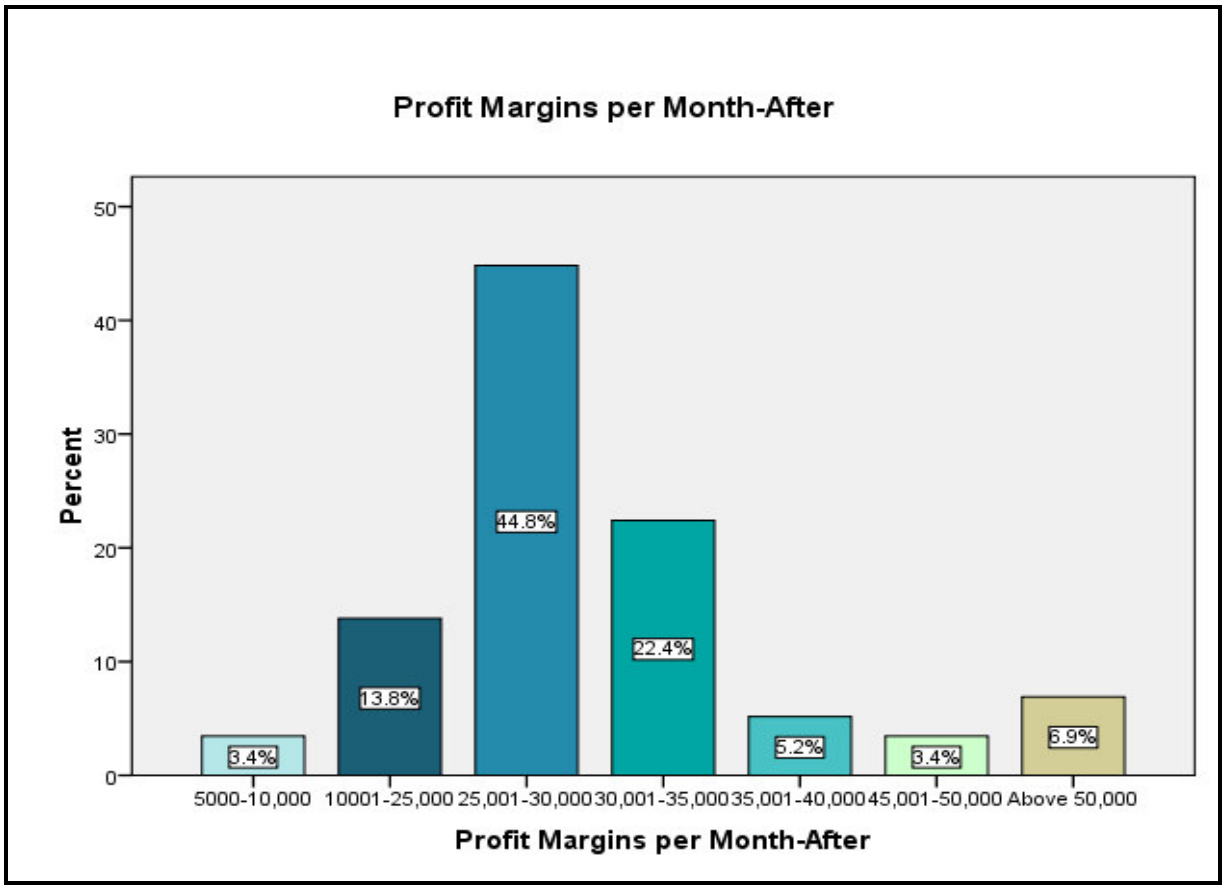

Figure 4.1a: Profit Margins per Month-After

Figure 4.1a Shows that 44.8% had an average monthly profit of 25,001-30,000 Kshs after the use of mobile money payment. This shows a marked improvement of profits from an average of 10,000-15,000 Ksh after use of mobile money payment services. It should be noted that this does not necessarily mean that mobile money payment service solely improved the profits but that it may have been a contributory factor. Helms (2007) had noted from his findings based on regression results that mobile payment services had a positive effect on profitability, albeit for his case, marginally.

4.2 Accessibility of Mobile Money Payment Service on Business Profitability

The first objective sought to establish the effect of accessibility of Mobile money payment service on business profitability. The results are as seen in Table 4.2.

Table 4.2 Accessibility of mobile money payment service on profitability

	SA		A		N		D		SD	
	F	%	F	%	F	%	F	%	F	%
Mobile money payment service is in my business at all times	11	20.0%	28	48.3%	6	10.0%	7	11.7%	6	10.0%
Clients can send money anytime of the day or night and this has positively improved my profits	9	16.7%	26	45.0%	7	11.7%	13	21.6%	3	5.0%
Most of my savings are in my phone, able to get them anytime I want which has improved my profits	11	20.0%	27	46.7%	7	11.7%	8	13.3%	5	8.3%
Mobile money payment service makes access to financial services timely and quicker thus enabling improvement of profits	5	8.3%	31	53.3%	9	16.7%	8	13.3%	5	8.3%
I have had no hitches with Mobile money payment service when depositing or withdrawing my money	14	23.3%	24	41.7%	5	8.3%	9	16.7%	6	10.0%
Mobile money payment service are basically easily accessible and has thus positively affected profitability	11	20.0%	27	46.7%	7	11.7%	8	13.3%	5	8.3%

Source: Research Data (2016)

From Table 4.2 it is evidently clear that 68.3% agreed that mobile money payment service was in their businesses at all times and 21.7% disagreed. This implies that mobile money payment services like Lipa na

Mpesa are always in operation with minimal hitches. The main reason that Mobile money payment service scores over Internet Banking is that it enables 'Anywhere Anytime payment (Porteous, 2008). Customers don't need access to a computer terminal to access their bank accounts, now the can do so on-the-go while waiting for the bus to work, traveling or when they are waiting for their orders to come through in a restaurant.

Finally, when asked if mobile money payment service were basically easily accessible and had thus positively affected profitability, 66.7% agreed, 21.6% disagreed and 11.7% were neutral. This again underscores the fact that mobile money payment service was accessible and that the SME owners/managers thought it had helped improve their profits. Mobile money payment service addresses the fundamental limitation of cash payment, as it reduces the customer requirement to just a mobile phone thus making its attractive and hence the need to may more and more often (Porteous, 2008).

4.3 Convenience of Mobile Money Payment Service on Business Profitability

The second objective sought to determine the effect of convenience of Mobile money payment service on business profitability. The results are as seen in Table 4.3.

Table 4.3: effect of convenience of Mobile money payment service on business profitability

	SA		A		N		D		SD	
	F	%	F	%	F	%	F	%	F	%
Mobile money payment service is complex and confusing to use thus making its use to find out if it affects profitability becomes difficult	2	3.3%	12	20.0	5	8.3%	30	51.7%	9	16.7%
Clients can easily pay bills via Mobile money payment service without queuing hence improving profitability	9	16.7%	26	45.0%	7	11.7%	13	21.6%	3	5.0%
I can very speedily pay my debts and use MPESA faster which has improved profitability	10	18.3%	28	48.3%	6	10.0%	8	13.3%	6	10.0%
Mobile money payment service has made it possible to deposit and withdraw cash anywhere in the country	9	16.7%	30	51.7%	5	8.3%	12	20.0%	2	3.3%
Mobile money payment service is convenient which has positively affected my business profitability	6	10.0%	28	48.3%	7	11.7%	12	21.7%	5	8.3%

Source: Research Data (2016)

From Table 4.3 it is clear that majority at 68.4% disagreed with the assertion that mobile money payment service was complex and confusing to use thus making its use to find out if it affects profitability being difficult. Only 23.3% agreed and 8.3% were undecided. This implies that mobile money payment service was simple and convenient and could well be used by the SMEs to measure profitability and how the system affects overall the SME profitability. Adams (2010) defines convenience as a position where someone is able to proceed with an action with ease and little difficult. Porteous (2008) says that Mobile money payment service users are many because it's easy to use. A good example is the MPESA, and *Lipa na Mpesa* service in Kenya.

Finally when asked if mobile money payment service was convenient which had positively affected business profitability, 58.3% agreed, 30.0% disagreed and 11.7% were undecided. This again speaks to the convenience of mobile money payment service. The convenience of mobile money payment service is almost squarely determined by the quickness of the service (Helms, 2007). Wishart (2008) mentions that part of the element of competition among firms, is the need to make the technological interfaces easier and better.

4.4 Security of Mobile Money Payment Service on Business Profitability

The third objective sought to determine the effect of security of Mobile money payment service on business profitability. The results are as seen in Table 4.7.

Table 4.4: Security of Mobile Money Payment Service on Business Profitability

	SA		A		N		D		SD	
	F	%	F	%	F	%	F	%	F	%
Mobile money payment service is a risky mode of service to use and is thus not used to measure profitability	11	20.0%	7	11.7%	6	10.0%	28	48.3%	6	10.0%
I am concerned about the security aspects of Mobile money payment service	13	21.6%	26	45.0%	7	11.7%	9	16.7%	3	5.0%
Information concerning my Mobile money payment service transactions can be tampered with by others and is thus not often used to find out if it affects profitability	8	13.3%	27	46.7%	7	11.7%	11	20.0%	5	8.3%
I have heard of savvy technology experts who have had access to private m-banking accounts	5	8.3%	31	53.3%	9	16.7%	8	13.3%	5	8.3%
There are sufficient passwords and other security features with my M-banking service.	9	16.7%	24	41.7%	5	8.3%	14	23.3%	6	10.0%
Mobile money payment service security has positively affected my business profitability	11	20.0%	27	46.7%	7	11.7%	8	13.3%	5	8.3%

Source: Research Data (2016)

From table 4.4 it is clear that majority at 58.3% disagreed with the assertion that mobile money payment service was a risky mode of service to use and was thus not used to measure profitability, only 31.7% agreed and 10.0% were undecided. This implies that while mobile money payment service had security concerns many SME owners and managers did not think it risky enough not to be used to help measure profitability. Security is another prime area of importance in Mobile money payment service. Since the birth of the GSM technology, security has been a key part of the rationale behind the standards (CGAP, 2008). Hence SIM ATK includes an encryption mechanism, and in many countries the air interface is encrypted as well. More advanced solutions building on WAP can also be set up to enable a more secure end-to-end environment (CGAP, 2008).

Finally, when asked if mobile money payment service security had positively affected business profitability, 66.7% agreed, 21.6% disagreed and 11.7% were undecided. Again, Security is another prime area of importance in Mobile money payment service. Since the birth of the GSM technology, security has been a key part of the rationale behind the standards (CGAP, 2008).

4.5 Flexibility of Mobile Money Payment Service on Business Profitability

The third objective sought to determine the effect of flexibility of Mobile money payment service on business profitability. The results are as seen in Table 4.8.

Table 4.5: Flexibility of Mobile money payment service on business profitability

	SA		A		N		D		SD	
	F	%	F	%	F	%	F	%	F	%
Mobile money payment service is a strict new Technology which consequently hampers profitability	5	8.3%	12	20.0	2	3.3%	30	51.7%	9	16.7%
The Mobile money payment service features are many allowing for a diverse usage which improves profitability	7	11.7%	26	45.0%	13	21.6%	9	16.7%	3	5.0%
My Mobile money payment service allows me to add my own preferences and features which has improved profitability	10	18.3%	28	48.3%	6	10.0%	8	13.3%	6	10.0%
The Mobile money payment services menus are clear and pleasing to the eyes and has made clients use it more often which has then improved profits	9	16.7%	30	51.7%	5	8.3%	12	20.0%	2	3.3%
The Mobile money payment service providers often upgrade the service and has made clients use it more often which has then improved profits	9	16.7%	26	45.0%	7	11.7%	13	21.6%	3	5.0%
Mobile money payment services' flexibility has a positive effect on business profitability	6	10.0%	28	48.3%	7	11.7%	12	21.7%	5	8.3%

Source: Research Data (2016)

From Table 4.5 it is clear that majority at 68.4% disagreed with the assertion that mobile money payment service was a strict new technology which consequently hampered profitability. This implies that basically mobile money payment service was considered as flexible. Maurer (2008) also noted as much when he argued that any system that works and influences business growth must be flexible.

When asked if the Mobile money payment service features were many allowing for a diverse usage which improved profitability, 56.7% agreed, 21.7% disagreed followed closely by 21.6% who were undecided. This gives an indication that mobile money payment service allowed for creativity and thus could be used to foster proper financial tracking that would allow for improvement of profits. Porteous (2008) says that financial services are critical for economic development. In order to increase profitability levels, it is essential to provide access to flexible and formal financial services for people without bank accounts. Mobile phones can deliver such services via mobile transactions (m-transactions) – financial transactions made using a mobile phone without visiting a bank.

Finally, when asked if mobile money payment services' flexibility had a positive effect on business profitability, 58.3% agreed, 29.0% disagreed and 11.7% were undecided. This implies that basically mobile money payment service was considered as flexible. Maurer (2008) also noted as much when he argued that any system that works and influences business growth must be flexible.

4.6 Correlation Analysis

As part of the analysis, Pearson's Correlation Analysis was done on the independent and the dependent variables. The results is as seen on Table 4.9

Table 4.6 Correlation Analysis

		Profitability	Accessibility	Convenience	Security	Flexibility
Profitability	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	58				
Accessibility	Pearson Correlation	.645**	1			
	Sig. (2-tailed)	.000				
	N	58	58			
Convenience	Pearson Correlation	.625**	423**	1		
	Sig. (2-tailed)	.000	.000			
	N	58	58	58		
Security	Pearson Correlation	.588	.411**	.117**	1	
	Sig. (2-tailed)	.000	.000	.002		
	N	58	58	58	58	
Flexibility	Pearson Correlation	.702**	.225**	.138	.457**	1
	Sig. (2-tailed)	.000	.005	.000	.000	
	N	58	58	58	58	58

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data (2016)

Pearson correlation analysis was conducted to examine the relationship between the variables. The measures were constructed using summated scales from both the independent and dependent variables. As cited in Wong and Hiew (2005) the correlation coefficient value *(r)* range from 0.10 to 0.29 is considered weak, from 0.30 to 0.49 is considered medium and from 0.50 to 1.0 is considered strong. However, according to Field (2005), correlation coefficient should not go beyond 0.8, to avoid multicollinearity. Since the highest correlation coefficient is 0.712 which is less than 0.8, there is no multicollinearity problem in this research (Table 4.6).

All the independent variables had a positive correlation with the dependent variable with flexibility having the highest correlation of ($r=0.702$, $p< 0.01$) followed by accessibility with a correlation of ($r=0.645$ $p< 0.01$) and then convenience with a correlation of ($r=0.625$ $p< 0.01$), security has the least correlation of($r= 0.588$ $p< 0.01$). This indicates that all the variables are statistically significant at the 99% confidence interval level 2-tailed. This shows that all the variables under consideration have a positive relationship with the dependent variable.

4.7 Regression Analysis

Since the measures that are used to assess the primary constructs in the model are quantitative scales, regression analysis can be used to achieve this end. Regression analyses are a set of techniques that can enable us to assess the ability of an independent variable(s) to predict the dependent variable(s). As part of the analysis, Regression Analysis was done. The results is as seen on Table 4.10, 4.11 and 4.12

Table 4.7 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.872[a]	.837	.831	.186

a. Predictors: (Constant), Accessibility, convenience, security, flexibility

b. Dependent Variable: Business profitability

From table 4.9 it is clear that the R value was .872 showing a positive direction of R, which is the correlation between the observed and predicted values of the dependent variable. The values of R range from -1 to 1 (Wong and Hiew, 2005). The sign of R indicates the direction of the relationship (positive or negative). The absolute value of R indicates the strength, with larger absolute values indicating stronger relationships. Thus the R value at .872 shows a stronger relationship between observed and predicted values in a positive direction. The coefficient of determination R^2 value was 0.831. This shows that 83.1 per cent of the variance in dependent variable (business profitability) was explained and predicted by independent variables (Accessibility, convenience, security, flexibility)

Table 4.8 ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	232.743	3	47.046	112.391	.000[a]
	Residual	12.788	227	.663		
	Total	206.621	230			

a. Predictors: (Constant), Accessibility, convenience, security, flexibility

b. Dependent Variable: Business Profitability

The F-statistics produced (F = 112.391.) was significant at 5 per cent level (Sig. F< 0.05), thus confirming the fitness of the model and therefore, there is statistically significant relationship between accessibility, convenience, security, flexibility, and business profitability.

Table 4.6 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.767	.361	.287	7.668	.000
	Accessibility	.385	.078	.393	5.968	.000
	Convenience	.168	.065	.193	2.593	.004
	Security	.284	.065	.324	4.383	.000
	Flexibility	.329	.064	.352	5.129	.000

a. Dependent Variable: Business Profitability

The t-value of constant produced (t = 7.668) was significant at .000 per cent level (Sig. F< 0.05), thus confirming the fitness of the model. Therefore, there is statistically significant relationship between accessibility, convenience, security, flexibility and business profitability.

Accessibility was significant ($p<0.05$) in Business Profitability; Convenience was significant ($p<0.05$) in Business Profitability; Security was significant ($p<0.05$) in Business Profitability; and finally Flexibility was significant ($p<0.05$) in Business Profitability.

From: Regression Model

$y_{od} = \alpha + \beta_1 (A) + \beta_2 (C) + \beta_3 (S) + \beta_4 (F) + e$

Thus;

$y_{od} = 2.767 + 0.393 (A) + 0.193 (C) + .324 (S) + 0.352 (F)$

Thus, the four hypotheses:

Table 4.7 Hypotheses Testing

Hypothesis	Test	Results	Remarks
H_{01}: Accessibility of Mobile money payment service does not significantly influence business profitability in Eldoret Municipality	Regression .000	Significant	Rejected
H_{02}: Convenience of Mobile money payment service does not significantly influence business profitability in Eldoret Municipality	Regression .004	Significant	Rejected
H_{03}: Security of Mobile money payment service does not significantly influence business profitability in Eldoret Municipality	Regression .000	Significant	Rejected
H_{04}: Flexibility of Mobile money payment service does not significantly influence business profitability in Eldoret Municipality	Regression .000	Significant	Rejected

Source: Survey Data (2016)

5.0. Summary, conclusions and recommendations

5.1 Summary

Accessibility had a correlation of ($r=0.645$, $p< 0.01$) and regression results of ($\beta=.393$, $t=5.968$, $p<0.000$). This is an indication that Accessibility was a major influence on SME business profitability. Convenience had a correlation of ($r=0.625$, $p< 0.01$) and regression results of ($\beta=.193$, $t=2.593$, $p<0.004$). This is an indication that Convenience was a major influence on business profitability. Security had a correlation of ($r=0.588$ $p< 0.01$) and regression results of ($\beta=.324$, $t=4.383$, $p<0.000$). This is an indication that Security was a major influence on business profitability. Flexibility had the highest correlation of($r= 0.702$ $p< 0.01$) and regression results of ($\beta=.352$, $t=5.129$, $p<0.000$). This is an indication that flexibility was a major influence on business profitability.

5.2Conclusion

Based on the research questions and findings of the study, the following are the conclusions:

Mobile money payment service was available to SME businesses and their customers at all times. Further, clients could send money anytime of the day or night and this had a positive impact on profits. Some of SME savings were in the phone, and the savings were accessible at any time. Mobile money payment service made access to financial services timely and quicker thus enabling improvement of profits. The managers had no hitches with mobile money payment service when depositing or withdrawing money. Finally, mobile money payment service was basically easily accessible and had thus positively affected profitability. It can therefore be concluded that accessibility of Mobile money payment service had a significant influence on business profitability in Eldoret Municipality.

Mobile money payment services were not complex and confusing to use thus making its use to find out if it affects profitability wasn't difficult. Clients could easily pay bills via Mobile money payment service without queuing hence improving profitability and managers/owners could very speedily pay debts and use MPESA faster which had also improved profitability. Further, mobile money payment service had made it possible to deposit and withdraw cash anywhere in the country. Finally mobile money payment service was convenient which had positively affected business profitability. It can therefore be concluded that convenience of Mobile money payment service had a significant influence on business profitability in Eldoret Municipality.

Mobile money payment service was not a risky mode of service to use and was thus used to measure profitability. They were however concerned about the security aspects of mobile money payment service, particularly concerning the possibility of transactions being tampered with by others. They had heard of savvy technology experts who had had access to private m-banking accounts. However, there were sufficient passwords and other security features with M-banking service. Finally, mobile money payment service security had positively affected business profitability. It can therefore be concluded that security of Mobile money payment service had a significant influence on business profitability in Eldoret Municipality.

Mobile money payment service was not a strict new technology which consequently hampered profitability. Mobile money payment service features were many allowing for a diverse usage which improved profitability and it allowed for addition of own preferences and features which had improved profitability. The mobile money payment services menus were clear and pleasing to the eyes and had made clients use it more often which had then improved profits. The mobile money payment service providers often upgraded the service and had made clients use it more often which had then improved profits. Mobile money payment services' flexibility had a positive effect on business profitability. It can therefore be concluded that flexibility of mobile money payment service had a significant influence on business profitability in Eldoret Municipality.

5.3 Recommendations

Based on the objectives and conclusions this study recommends;

SME management should embark on a proactive and robust marketing plan in conjunction with mobile

money payment service providers to create awareness of the benefits of the program. Further, other SMEs that are not using mobile money payment service should start using to help spur profits. The m-banking service providers should embark on customer education on the usefulness of integrating other m-banking options like saving, credit/debit alerts, bill payments and financial services like share trading.

The m-banking service providers in conjunction with CCK should urgently endeavor to make mobile money payment service more secure to alleviate customers' fears and make mobile money payment service more effective. The m-banking service providers should further introduce user friendly interfaces and simple guidelines that would enable users to learn more creative uses of mobile money payment service through their phones. SMEs should be encouraged to keep complete financial records, which would help them keep track of their financial performance, and also allow researchers to conduct more precise research regarding profitability.

5.4 Suggestions for further research.

This study by all means did not exhaust all the facets of contribution of mobile money payment service to business profitability. Therefore, the following areas have been proposed as fields that could be considered in research work in the future:

In the light of this study:

1. A comparative study should be done on factors affecting m-banking usage against retail banking.
2. Further research should also be done to ascertain the effect of M-banking on the banked as opposed to the unbanked.
3. Reasearch should be done to find out whether a similar relationship exists between profits for large scale enterprises and the use of mobile money payment services.

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