RESEARCH ARTICLE

DOES MOBILE MONEY SERVICES HAVE ANY IMPACT ON SMEs PERFOMANCE IN NAIVASHA?

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ABSTRACT

Background: Mobile money has seen a rapid growth with dramatic increase in customer subscriptions. Launched in Kenya in the year 2007, the total subscriptions by the year 2012 reached 18.4 million subscribers according to Communications Commission of Kenya report (2011/2012). Services offered through the mobile money platform presents business transactional opportunities that Small and Medium Enterprises (SMEs) can adopt since their needs are not always well served by conventional banking system.
Objectives: The objectives of this study are; to establish the current awareness amongst SMEs of various mobile money services, the range of mobile money services preferred, how use of mobile money has impacted on business and how they have dealt with challenges resulting from use of mobile money.
Methods: A cross-sectional study majorly explorative in nature was conducted in Naivasha Municipality town. A five-Likert scale questionnaire tool was administered. Probability sampling method was used and the sample size was 113 respondents.
Results: Total of 113 business owners in Naivasha town were interviewed, most of whom were female respondents (67%). 16% of the businesses surveyed, were partnerships but majority of the businesses were sole proprietorships topping the list at 85%. 99% of the respondents had perfect information on most mobile money transactions. A significant 90% and 73% respectively asserted that mobile money was very important for sending money and receiving money respectively but was less important in other mobile money transactions in relation to business activities in Naivasha town. For those using mobile money services for specific mobile money related business transactions, 95% rated those services as important to the business. Mobile money service transactional cost was rated as expensive, but business owners confirmed that those services positively the contributed to their business growth. There was a positive correlation between SME performance and Efficiency and Reliability with a correlation of 0.435
Conclusions: The study found that mobile money had made a significant contribution to the SME sector since majority of the traders relied on it as opposed to the formal banking sector for their day to day transactions. Secondly, it was evident that all the respondents in this study have deep understanding of how the basic functions of mobile money.

INTRODUCTION

Mobile money, also referred to as mobile payment, mobile money transfer, and mobile wallet generally refer to payment services operated and performed from a mobile device such as mobile phone, credit or debit cards and is further clarified as the intersection of both banking and telecommunications services (World Bank, 2010). Must and Ludewig (2010) trace back the rise of mobile money to the rapid and worldwide penetration of mobile phone dating back to 1999. By the 2011 over 60 million customers had availed themselves for mobile money subscription (Davidson and Penicaud 2011), a picture of an outstanding growth compared other technologies and their adoption. In Kenya, mobile money was launched in March

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2007 by the biggest mobile operator Safaricom. Since the launch of mobile money in Kenya through Safaricom, the service has been rolled out by other mobile operators (Zain/Airtel, Essar Telecom, and Telkom Orange-appendix 1). Communications Commission of Kenya CCK (2011/2012) report indicates that Kenya has a total of 26.49 million mobile phone subscribers with 18.4 million subscribing to mobile money services. The total number enrolling into mobile money services account for approximately 48% of the entire Kenyan population, or 69.5% of the total mobile phone subscriptions. The report by CCK indicates that by September 2012, a total of 56.7 billion Kenya shillings were deposits through mobile money services, which would have not been transacted, or would have followed mainstream financial institutions (banks and microfinance institutions). The types of financial services provided through mobile money have been grouped by World Bank (2012) into mobile finance, mobile banking and mobile

payments. Mobile finance includes credit, insurance and savings services while mobile banking can be transactional or informational. Mobile payments range from payment made from person-to-person, government-to-person, and business-to-business. These types of financial services have traditionally belonged to commercial banks or microfinance institutions. The range of services the SMEs could benefit from mobile money technology include mobile money transfers, mobile ATMs, mobile ticketing, mobile vouchers, loyalties and coupons, content purchases and deliveries, information services, mobile banking, mobile purchases, mobile marketing and advertising amongst many others. More recent specific examples include M-Kesho product which is a partnership between Safaricom and Equity Bank to provide micro-savings accounts, credits and insurance.

SMEs need for payment and transactional services are not always well served by conventional banks since they do not always find it easy or cost effective to adopt a full-featured package of banking services as a larger business might (Higgins *et al.,* 2012). We set out to investigate therefore if Mobile Money Services has had any impact on SMEs industry in smaller urban towns in Kenya apart from the capital cities where the invention was launched and how SMEs operators have managed to deal with problems associated with mobile money technologies. The purpose of this study therefore was to describe how mobile money services available have influenced SMEs activities to either finance business or support business operations.

Literature Review

Mobile money has proved to be a scalable method to provide financial services in developing countries (Must and Ludewig, 2010). At household level, mobile money significantly impacts on ability of households to spread risks as a result of reduced transaction costs compared to households without mobile money who are likely to suffer drop in consumption when hit by a negative income shock (Jack and Suri, 2011). In particular, m-banking which is a service available through mobile money has been shown to have potential to bring basic banking and electronic services to unbanked consumers (Jamie, 2010). The impact of m-money systems on microeconomics and macroeconomics outcomes however is a rich area of research (Jenny and Isaac, 2010). Small and Medium Enterprises (SMEs) have economic significance in Kenya. According to the economic survey of 2006, the sector contributed to over 50% of new jobs created in the year 2005, while in 2011, informal sector created approximately 80.6% of the total jobs during this period according to the 2011 economic survey (KNBS, 2011). Survey done in less urban areas of Ghana on business related calls and expenses related to such calls was conducted by Godfred (2009) which showed that mobile phones ownership increased access to markets, contributed to efficiency in conducting business, but only limited capacity to operate other financial services using their mobiles phones. Mobile money can also viewed mobile money service as a variation of branchless banking with potential for delivery of financial services outside conventional banking (Wambari and Mwaura, 2009).

The main gaps exist in systematic assessment of the impact of mobile money especially on SMEs in Kenya. Even though current research suggest that mobile phone coverage and adoption has a positive impact on risk reduction, markets improvements, coordination amongst firms and labor market, as Jenny and Mbiti (2010) reports, empirical evidence is limited. The conceptual framework model adopted for this study highlights that mobile money services influences some important pillars of business financial operations like reduced transactional costs, reduced time to complete transactions, increased financial accessibility, and increased efficiency.Since mobile money presents a cheaper option for various essential services like m-banking, financial and payment services, this model therefore presents an argument that increased transactions arising from mobile money will lead to increased business activities which eventually leads to improved SMEs performance and competitiveness.

MATERIALS AND METHODS

The study is a cross-sectional study carried out in January 2013 majorly exploratory in nature, attempting to understand how SMEs have made use of mobile money services and impact accruing from such uses. A five-point Likert scale survey questionnaire was used to obtain the data. Data was collected in Naivasha municipality which is a market town in Rift Valley Province of Kenya. The town is not considered a city in Kenya, but classified as an urban town or municipal town. Choice of Naivasha town was chosen on purposive based on convenience of the researcher and the monetary resources available. Probability sampling method was used. Study population consisted of randomly selected SME owners or managers in Naivasha town and the unit of analyses was the SMEs in Naivasha town. The sampling frame was the list of businesses registered in Naivasha municipal council. SMEs were stratified into small, medium, large and others, which was mainly a categorization adopted by the municipal council of Naivasha. Thereafter, ideal sample sizes were obtained from each category except large businesses. A list of registered SMEs was obtained from the Municipal Council of Naivasha to constitute the sampling frame. The sampling frame was records obtained from Naivasha municipal council licensing office and were composed of those businesses that have renewed their licenses in 2012.Using the search engine from the Naivasha municipal council computer database, the researcher identified 263 businesses located in the central business areas, and the main streets. The computed sample size was 113 respondents which included 55 medium businesses, 40 small businesses and 18 categorized as others in the Municipal registers.

The questionnaire had guidelines on how to respond to each question and administered by trained data collection officers to ensure errors were eliminated in the field and increase response rate. A combination of qualitative and quantitative techniques was used to analyses collected data. Data collected was first edited to detect and eliminate errors and omissions. This process was done simultaneously with data collection in the field. It was then coded according to categorization for entry into computers for data analyses. All data collected was entered into the computer for analyses. A combination of quantitative analyses techniques together with qualitative analytical

techniques were employed. For quantitative analysis, Statistical Packages for the Social Sciences (SPSS) or Microsoft Excel spreadsheets were used to analyze the collected data.

Study Findings and Analysis

The summary of the study population characteristics of the SME are contained in Table 1 below.

that there was a positive relationship between respondents' use of mobile money services and the importance of that service to their business which means that as the respondents' frequency to use the mobile money service increases, the importance attributed to that service to the business also increases. The study found that 71% of the businesses had no bank account whereas 16% had accounts in equity bank. 73% of SMEs who had bank accounts were also using mobile money services to

Table 1. SME Characteristics

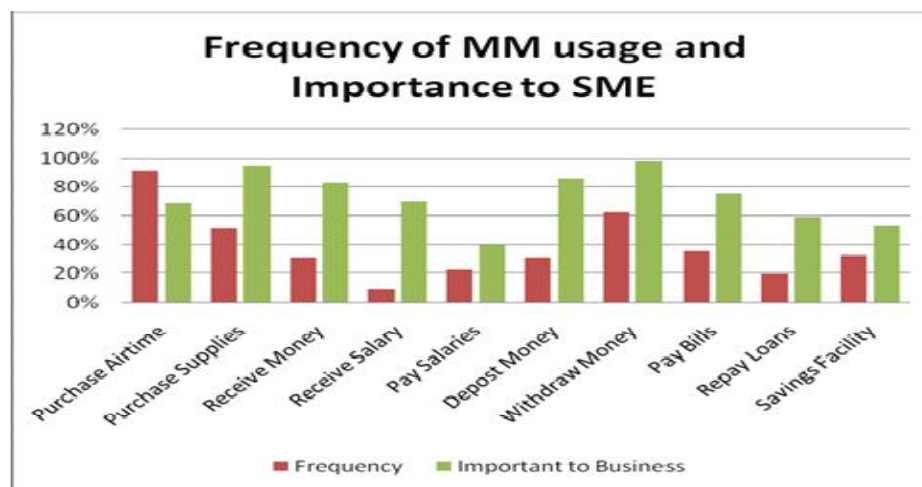| Demographic variables	n=113	n=113
SME Respondents Gender	Female, 67%	Male, 33%
Respondents status in business	Owner, 79%	Employees, 15
Business type	Sole proprietorship, 85%	Partnership 14%
Number of employees	One to five, 98%	More than five, 2%
Years of SME operation	One to five years, 88%	More than 5 years, 12%
Annual sales turnover	Kes101,000-350,000, 51%	Below Kes 100,000, 30%

Fig. 1. Mobile Money usage and importance to SMEs

Knowledge of Mobile Money Services

The study evaluated the knowledge of the respondents regarding mobile money services and all the respondents responded positively. It was established that Safaricom M-Pesa service is most widely used followed by Airtel money.99% of the respondents had perfect information on buying airtime, sending money, receiving money, viewing mobile transactions, depositing cash and understanding deposit notifications. However, only 84% of the respondents had a detailed understanding of how to pay bills using mobile money, 81% were able to check bank balances on phone while only 75% could understand a bank deposit notification. A significant 90% and 73% respectively asserted that mobile money was very important for sending money and receiving money respectively was similar previous research findings. The research found out that mobile money was less important in purchasing airtime (57%) and check balances on mobile money (57%). Importantly, the study revealed that those using a particular mobile money service were more likely to rate the service as important to their business as is shown in the graph below.

Using the regression analyses on relationship between mobile money service and importance to SME The research confirmed

accessing bank loans followed by checking bank balances (72%) and bank statement request (71%). Bank withdrawals using mobile phone was at 69% with buying airtime being the least used service at 1%.

Inconveniences with Mobile Money Services

Majority of the respondents expressed reservations on the reliability of the mobile money system and we sought to find out the causes of such inconveniencies. It was found out that there were three major causes of these inconveniencies. I.e. delays, (66%) no float (22%) and loss of money (18%). It is worth noting that however, that 60% of the respondents had not experienced money loss, 47% had not experienced lack of float whereas only 8% indicated that they had never experienced a delay in mobile money services. These problems did not seem to worry the respondents so much since 83% prefered to wait for the problem to be sorted out in the case of delays, while only 17% called the service provider to help in addressing the issue.

Mobile Money Services Impact on SMEs Growth

SMEs in Naivasha town recognized that mobile money had contributed to the business growth with 90% of the respondents

stating that mobile money services was convenient and as a result, SMEs increased the amount transacted in their businesses when mobile money services are added to other methods of business transactions. 51% strongly agreed that mobile money has had a positive impact on their sales. 37% of the respondents strongly disagreeing with the concept of mobile money as a mode of payment and 36% being against the idea of mobile money as a model for paying suppliers.100% of the respondents strongly disagreed that that mobile money has made loan applications easier while 73% of the respondents strongly disagreed that mobile money has made salary payment and loan repayment more convenient.

From the findings, there was a positive correlation between SME performance and Efficiency and Reliability with a correlation figure of 0.435, it was clear that there was a positive correlation between the SME performance and Financial accessibility as shown by a correlation figure of 0.242, it was also clear that there was a positive correlation between the SME performance and Transactions time and convenience with a correlation figure of 0.103 and a positive correlation between SME performance and transaction cost with a value of 0.119. This shows that there was positive correlation between SME performance and transaction cost, Transactions time and convenience, financial accessibility and Efficiency and Reliability. The coefficient of determination was carried out to measure how well the statistical model was likely to predict future outcomes. The resulting R squared was0.08 (8%), which shows a rather weak fit of the data in the model. Thus, the mobile money services weakly predicts the growth of SME's in Naivasha.

mobile money transactional cost as expensive compared to those who did not use a particular service. Despite rating mobile money service transactional cost as expensive, they were still more likely to rate positively the contribution of mobile money to their business growth. This data is summarised as percentages in the table 4.7 presented below.

DISCUSSION

Widespread knowledge of mobile money services in the locality which high (99%-75%) on currently available range of services provided. Very high rates of enrolment to mobile money services in this group is far above the 75% penetration reported by Communications Commission of Kenya (2011/2012) even though this was to the general population. Mobile money services were majorly provided through M-Pesa as opposed to other mobile money services available in the same locality. It is noteworthy that we missed to assess the number of business that has a dedicated mobile money phone/line for the business. This however was undertaken by Financial Sector Deepening (FSD) Insights (2012), who found out that few businesses have dedicated mobile money account for conducting financial transactions and therefore an overlap between personal and business related transactions. However, only few respondents were using the service as a saving facility or to access loans services even though these services are made available through partnership between banking sector and mobile money services like M-Shwari product. Some were using mobile money services to pay bills, pay salaries, deposit or withdraw money from their banks, and to buy or sell

Table 2. Perception of mobile money service, their opinion on cost and impact on business

	Frequency	Mobile Money Service			Positively Contribute to Business growth
		Expensive	Reasonable	Cheap	
Purchase of Supplies	51%	53%	36%	9%	79%
Receive Money Payments)	43%	55%	35%	10%	71%
Pay Salaries/Wages	30%	56%	29%	12%	38%
Pay Bills	50%	55%	30%	13%	
Loan Payments	27%	57%	40%	10%	57%
Withdraw Money	88%	44%	38%	14%	
Savings	36%	39%	44%	17%	
Deposit Money	85%	48%	35%	11%	

Table 3. Mobile money services relation to business growth and performance

	SME Performance	Transaction cost	Transactions time and convenience	Financial accessibility	Efficiency and Reliability
SME Performance	1				
Sig. (p-Values)					
Transaction cost	.119	1			
Sig. (p-Values)	.365				
Transactions time & convenience	.103	.097	1		
Sig. (p-Values)	.435	.461			
Financial accessibility	.242	.362	.213	1	
Sig. (p-Values)	.063	.004	.102		
Efficiency and Reliability	.435	.461	.213	.335	1
Sig. (p-Values)	.103	0.097	.102	.009	

Cost of Mobile Money Services and Impact on SMEs Growth

This research also found out that majority of those respondents who were using a particular service were more likely to rate the

business related goods. Majority of SMEs were utilizing this service for traditional functions like sending and receiving money, a study finding consistent with Njenga (2010). For those that used any mobile money services for SME related activities, they were more likely to rate the service as important

to the business. Only 29% of the study respondents had an account with a bank. Wambari and Mwaura (2009) purport it could be because respondents view mobile money service as a variation of branchless banking with delivery of financial services outside conventional banking. This particular issue warrant further investigation to see why low enrolment into mainstream banking sector continues before and after introduction of mobile money services.

This research found out that 51% of respondents strongly agreed that mobile money has had a positive impact on their sales and the biggest reason for this was due to convenience of the mobile money services, which was echoed by 90% of respondents. Those who used mobile money services were more likely to give a more informed feedback on the importance of the service to their business compared to those that did not. The majority of the respondents were only using mobile money for services like receiving or sending money, and few were using the mobile money services to pay bills, counter transactions, access loans and other services. An important unique finding was a positive relation between the mobile money transactional cost and usage. Those who were more likely to use the service were also more likely to rate the transactional cost as expensive compared to those who did not use the service who were more likely to rate the service as cheap or reasonable. Mbogo (2010) had identified that low cost positively correlated to the behavioural intention to use mobile money service. In this study however, the perception that transaction cost was expensive amongst users of the service did not lead to deter use of the service.

Considering that M-Pesa was by far the biggest provider of service in this region, it will be useful to evaluate how they have managed to achieve customer royalty despite this perception of cost. The study concludes that mobile money has made a positive contribution to the SME sector since majority of the traders rely on it as opposed to the formal banking sector for their day to day transactions. Secondly, it is evident that all the respondents in this study have deep understanding of how the basic functions of mobile money. However it is worth noting that majority of the respondents have reservations on the convenience and cost of the service as a result of problems associated with the functionality of the service. Delay was a major concern amongst the respondents followed by lack of floats. Thirdly, many of the players in the SME sector do not have bank accounts hence creating a big potential for mobile money. From the findings, it is evident that, mobile money users are not conversant with mobile-bank transactions on loan applications and repayment and possibly prefer the normal banking system to mobile banking when it comes to loans and advances, or other forms of business loans applicable to SMEs.

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