

## Effects of Sales Revenue by Use of Mobile Phone Money Transfer on the Profitability of the Micro and Small Enterprises in Bungoma County

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### *Abstract*

*There have been relatively few studies focusing directly on the way mobile payments are used to enhance the quality of the services of MSEs especially those in rural areas and therefore increasing their profitability. MSEs also from the rural areas face problems in settling their day to day transactions as they had to close down their businesses to visit banks to settle their obligations where we have problems of infrastructure and in addition most of MSEs in the rural areas do not have bank accounts. The main purpose of this study was to determine the effects of mobile phone-money transfer services (M-PESA) on the profitability of Micro and Small Enterprises in Bungoma South District. The specific objectives of the study were to; determine the effect of cost reduction, sales revenue and market share by use of mobile phone money transfer services on the profitability of Micro and Small Enterprises. The target population was MSEs in Bungoma South District which consisted businesses such as retail shops, tailoring, chemists, hardware's, carpentry, metal workers, hair salons, repair services and butcheries. The sampling technique used was multi-stage random sampling where a total of 57 sample size was yielded. Excel Computer Package was used to analyse data which was descriptive and presented in form of graphs, pie-charts, frequency and percentage tables. Some of the major findings included that almost each business own or have used a mobile phone in their business at 98%, education level and duration of running the business has an effect on the profitability of that business. Other major findings were that Mobile Money Transfer services forms the highest percentage of usage among the respondents at 86% as opposed to traditional banking hall and money transfer companies at 10% and 4% respectively as it reduced their transport cost and risks when sending cash. Mobile Money Transfer services were also rated above average with 58% and have assisted MSEs to reduce costs as it reduced the number of times going to the bank i.e. time saving on queuing, it left individuals with more time to run and monitor their businesses one on one, transaction fees are lower than those charged by most banks and it's easier to use it when paying for clients and customers in their rural areas. Most MSEs also felt that mobile money transfer services have helped to increase sales revenue as mobile phones are mostly used by businessmen to communicate with customers and suppliers and also has helped the business to grow and as a result increased the productivity and profitability of the business. There are many institutions in Kenya that train people on computer usage, but none trains them on mobile phone usage, a technology that is transforming lives for the better in the informal sector. More effort should be made to educate the public especially the MSEs on business benefits of these new technologies. It is commendable that the Kenyan government has removed tax from mobile handsets making mobile phones affordable by many people. Nevertheless, it should also*

assist in bringing down the cost of airtime further so as to induce most of the MSEs in using the mobile money transfer services. Internet enabled mobile phones are already on the Kenyan market and most MSEs in rural areas do not use these service therefore training is required to enlighten rural people as the internet is important for the import or export of goods, and MSEs that would like to participate in global markets should be given a chance to make informed market choices by being enlightened on internet-based mobile phones.

**Key Words:** Sales revenue, Mobile Phone Money, Transfer system, Profitability, Micro and Small Enterprises.

## Background Information

Lack of employment alternatives has pushed many people into self employment activities which largely form the micro and small enterprises sector in the country. This sector is not clearly defined or understood in Kenya and in other developing countries. A micro enterprise is one having not more than ten employees including the owner, while a small enterprise is the one having eleven to fifty employees (Stevenson, 2005). It has come up with the department of micro and small enterprise development. The department is a result of the merger of the division of small scale and *Jua Kali* (hot sun) enterprises and the Directorate of Applied Technology. This department is responsible for the formulation and implementation of policies and strategies for the development of the MSEs sector. Earlier on this evolution, mobile phone users were made aware that they could use the cell phone technology to transfer money across wide distances. In March 2007, the leading cell phone company in Kenya, Safaricom, formalized this procedure with the launch of *M-PESA* (The M in M-PESA means Mobile and PESA is Money in Kiswahili the national language in Kenya), an SMS-based money transfer system that allows individuals to deposit, send and withdraw funds using their mobile phones. Individuals who do not need to withdraw or send balances immediately, are able to accumulate savings in their accounts over time. *M-PESA* is widely viewed as a success story to be emulated across developing world (Jack and Suri, 2009). The facility can be used by the young, old, male, female, urban and rural people alike. Several mobile payment trend studies have revealed the potential of mobile network technologies for payment purposes (Pousttchi, 2003; Taga and Karlson, 2004). So far, there has been no clear insight into the role that mobile phone money transfer system play in the development of micro-business. This implies that technology providers, government agencies and development partners may not address the required interventions and there is therefore a need to examine the contribution of mobile payment technology on micro businesses and the effect on their business profitability.

## Micro and Small Enterprises (MSEs)

MSE is a business segment that is slightly bigger than income generating and which includes small shops, metal working, carpentry, tailoring, and various forms of repair services (e.g. radio and TV, cars, household appliances). The main characteristics of MSEs are:-They work with a few family workers, apprentices with one or a few (up to 10 including the owner(s) of the business) permanent workers, their technology is a mix of traditional and more-modern-but obsolete, they lack access to capital, have modest technical skills and lack management, they are more linked with markets as part of their production, inputs are imported and they serve local and nearby markets, they are found in larger villages, rural towns and regional centres, some of them have some potential for growth, or at least for the development of entrepreneurial skills (Chogi, 2007). The majority of the micro businesses in Kenya operate in the informal sector with most of them being sole proprietorships or family businesses usually employing less than five persons. They are involved in small semi-organized and sometimes unregulated activities that are mainly concentrated in urban as well as in some parts of the rural areas. MSEs have made significant contributions to the economy. In Kenya, for instance, it is estimated that the MSEs sector, on average, employ 22% of the adult population compared to 15% employed by formal or large enterprise sector, and its contribution to GDP is

about 13% (Daniel and Mead, 1999). These information about MSEs sector together with the fact that majority of customers are in rural areas – about 80% of the population with few having bank accounts, illustrates the reason as to why a study on mobile phone money transfer system is crucial on MSEs profitability in rural Kenya.

### Integration of Mobile Phones in MSEs

Phones are the information-related technology that has done the most to reduce costs, increase income and reduce uncertainty and risk. Phones support the current reality of informal information systems, they can help extend social and business networks, and they clearly substitute for journeys and, in some cases, for brokers, traders and other business Intermediaries (Donner, 2005; Hughes and Lonie, 2007). Phones also meet the priority Information needs of this group of communication rather than processing of information (Duncombe and Heeks, 2006). They also have a direct basic task of running a business—reducing costs, increasing income, managing risk—and links them to core functions of mediated communication technologies, particularly the substitution for journeys. As demonstrated elsewhere, the key is increased productivity (Saunders *et al.*, 1994).

The leading mobile service providers in Kenya have introduced some money transfer services whose objective is to enable Kenyans to make 'micro payments' using their mobile phones. These services are supposed to provide an e-commerce platform of choice in a country where credit cards have struggled to reach most the population without the bank accounts. *M-PESA*, an innovative new mobile payment solution that enables customers to complete simple financial transactions by use of mobile phone (Chogi, 2007; Hughes and Lonie, 2007). Some of the uses of *M-PESA* includes:- Payment for trading between businesses, Secure money transfer for People journeying between the places, depositing cash at one end, and Withdrawing it a few hours later at the other; People sending airtime purchased by *M-PESA* directly to their relations up-country as a kind of informal remittance; Send money for various ad hoc reasons.

### Materials and Methods

Sales revenue is the total amount of money that the firm has earned from the sale of all its goods and services during a given time period. This is usually six months or a year. If a firm produced just one product or service the sales revenue would be the price of the product multiplied by the number of the product sold. In the case of more than one product or service the revenue from each needs to be added together. Revenue is a crucial part of financial statement analysis. A company's performance is measured to the extent to which its asset inflows or revenues compare with its asset outflows or expenses (Horngren *et al.*, 1999). The unprecedented diffusion of mobile phones has consequently reduced communication, transportation, and marketing costs in many parts of the developing world (Aker, 2008). This transformation has been acute in sub-Saharan Africa where there is a problem of fixed line communication and physical transportation infrastructure. The few that exist are often unreliable and dilapidated. Mobile phone technology has allowed millions of Africans to leap-frog the land-line en route to 21<sup>st</sup> century connectivity, which is expected to have expanded the market participation of market agents. The expected increase in participation of market participants increases the trading activities which are expected to ultimately increase the net returns of the producers, traders and consumers as cited in many studies (Aker, 2008).

The “dual system” thesis has been used to describe the continuing commitment of urban migrants to the village in various African countries (Gugler, 1991; 2002). These studies suggested that, urban workers continue to maintain ties with rural area, even after spending a substantial amount of time in the city. There are many ways in which urban people maintain such relations with the rural area. They include, *inter alia*, visits from the city to the village. It also includes the transfer of remittances from urban people to rural people. The success story of M-PESA innovation is expected to catapult the urban-rural remittances and hence lubricate the stronger ties in rural areas by the urban people.

## Research Design

A research design is a presentation of the plan, the structure and the strategy of investigation, which was used to answer various research questions. It is a framework that guides the collection and analysis of data. The researcher employed a descriptive or survey research design. Descriptive research involves surveys, a fact finding enquires of different kinds. The major purpose is the description of the state of affairs as it exists at present. The survey research was descriptive because it obtained information about the existing phenomenon. Mugenda (1999), noted that the design takes less time to carry out and is simple.

## Target Population

The researcher defines a target population as the population from which a Sample can be obtained and conclusions applied on it. The target population for the study was drawn from Micro and Small Entrepreneurs based in Bungoma South District, running Micro and Small businesses. The total target population of Micro and small businesses for the entire Bungoma District was 8,074 (Business Register-County Council of Bungoma, 2012) that of Bungoma South District was 2,557 (Bumula constituency had 861 businesses while Kanduyi constituency had 1,696 businesses). The research involved businesses such as retail shops, tailoring, chemists, hardware's, carpentry, metal workers, hair salons, repair services and butcheries.

## Sampling Technique

Multi-stage random sampling technique was used where a sample was prepared in stages and sampling was ideally random at each stage. Since Bungoma South District was a large area, the researcher first considered the Constituencies in the district which were only two, that is; Bumula and Kanduyi Constituencies. In the second stage, a random sample of smaller areas that is wards was taken within each of the constituencies chosen in the first stage where three wards were randomly selected from each constituency. In the third stage, a random sample of one ward in each constituency was taken from the second stage, where finally Bumula ward and Bukembe ward were randomly selected to come up with a representative sample.

## Sample size

The researcher defines a sample as a representative group of the target population that is selected using various sampling methods. The total target population of the studied wards was 570 (Bumula-205 and Bukembe-365 Businesses). The researcher studied only 57 MSEs out of the total 570. This sample is enough for conclusive generalization of the whole population as it constitutes 10% of the target population (Kothari, 2006).

## Data Collection Procedures and Instruments

The main primary data collection instrument that was used was the questionnaire. The draft of the questionnaire was pre-tested on a sample of 5 respondents in order to test the instruments validity and reliability and the final draft adjusted as per the observations made during the pre-test such as the responses received for open-ended questions were coded to closed-ended questions for easier analysis. Closed-ended questions in the long run were used to collect data.

## Data Analysis and Presentation

Data collected was presented in charts and tables making it easier to read and interpret. Analysis of data in this study was descriptive. Nachmias and Nachmias (2004) noted that descriptive statistics enables the researcher to summarize and organize data in an effective and meaningful way. They provide tools for describing collections of statistical observations, reducing information to an understandable form.

Microsoft Excel was used in the processing of data and the information generated was presented in the form of graphs, pie charts, frequency and percentage tables. These gave a clear and a more understandable presentation of the data so obtained.

**Ownership of Mobile Phone by Businesses**

According to the findings, 92% of Micro and small business owners own a mobile phone while a further 6% can access one through family or friends. The study also found out that in totality, therefore, 98% of Micro and Small businesses in Bungoma South District can access mobile phone money transfer services through *M-PESA* if they wanted while 2% of Micro and Small businesses cannot access *M-PESA* services.

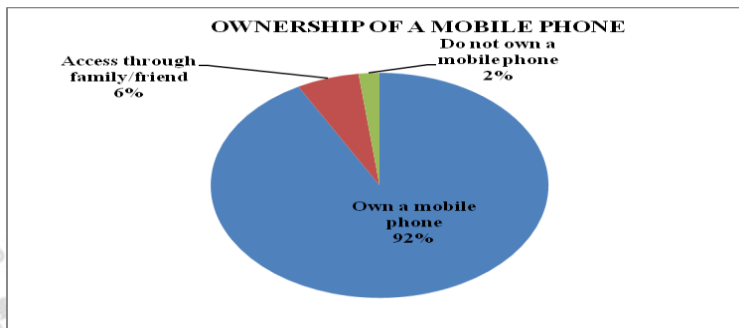


Figure 4. 1 Ownership of mobile phones

According to the researcher’s opinion, the 2 % of MSEs without phones have used a phone in one way or another. They can buy SIM cards to use in others' phones, while some can borrow phones with or without paying compensation for the airtime from local businesses or other people in the community besides friends and family.

It can be seen therefore that the high penetration of the mobile phone among the MSEs in rural areas can serve to help the high percentage of unbanked small business access financial services through *M-pesa* which helps them to reduce costs. The mobile phone industry can therefore be seen as an ideal partner to offer mobile services to MSEs in rural areas.

**Nature of Phone Used in a Business**

This data helped the researcher to understand the level of mobile phone money transfer services used by Micro and Small Enterprises in rural areas and its likely effect on the profitability.

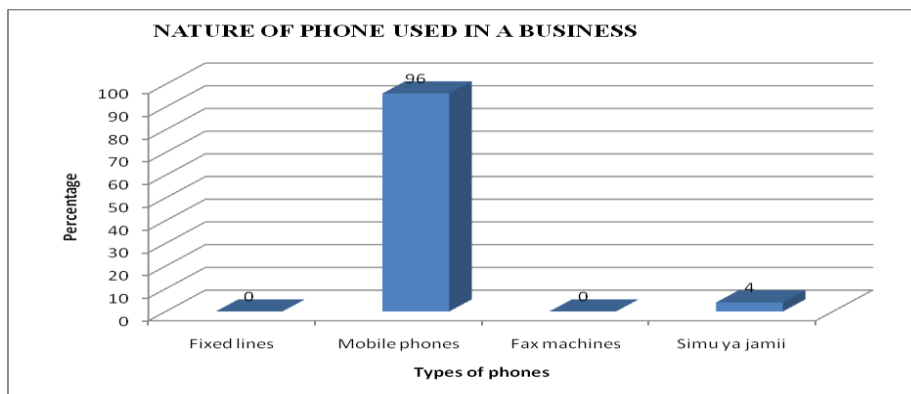


Figure 1. 2 Nature of phones used in a business



Figure 1.2 highlights the nature of phones used in a business. Mobile phones were the ones mostly used in a business and had the highest perceived impacts on their MSEs at 96% of the respondents while only 4% of the respondents used simu ya jamii in their business. However, most respondents felt that fax machines and fixed lines were not used in their businesses. This was contributed by the fact that most of the micro entrepreneurs had no access to fixed lined and faxes machines and hence felt no impact about them on their businesses.

### Effect of M-PESA on Sales Revenue

Sales revenue shows the total amount of money that the firm has earned from the sale of all its goods and services during a given time period. This is usually six months or a year. 77% of the respondents interviewed agreed that mobile money transfer services has an effect on sales revenue while 13% did not agree and a further 10% were not aware whether MMTs has any effect on sales revenue.

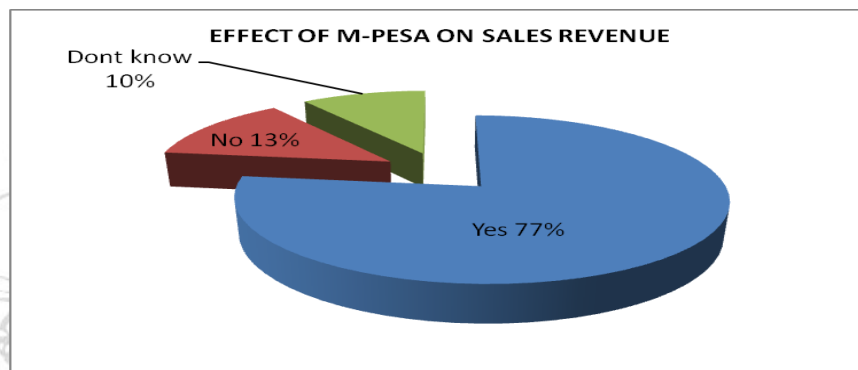


Figure 1.3 Effect of M-PESA on sales revenue

Most respondents felt that the use of mobile phone money transfer services increases their sales revenue in the sense that customers do not have to go to the bank to withdraw money so as to purchase goods and services as they already have a mobile bank with them and can make purchases anytime, anywhere as they so wish.

### How M-PESA has influenced the Profitability of Micro and Small Businesses

From the figure 1.5 below, it reveals that many of the business owners felt that by use of the mobile phone money transfer system has helped their businesses to cut costs and hence increase their profitability. Thus, 86% of the respondents agreed that it has made a tremendous positive change in different sectors or areas of operation within the business. Only 14% of those who own and transact using the service felt it was yet to bring about a positive change in terms of cost savings and safety.

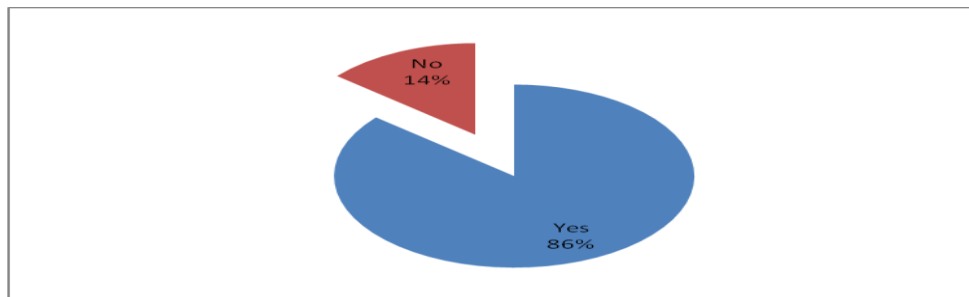


Figure 1.5How M-PESA has influenced the profitability of micro and small businesses

The 86% of those who felt the system has helped their businesses increase their profitability highlighted that it has helped their business save on cost, reduced number of times of going to the bank i.e. time saving on queuing, it left individuals with more time to run and monitor their businesses one on one, transaction fees were lower than those charged by most banks, it's easier to use it when paying for clients and customers in their rural areas, they used it to pay for the goods and services like water, It reduced their transport cost and risks when sending cash compared to other means.

In the study, the researcher was able to determine the effect of cost reduction, sales revenue and market share by use of mobile phone money transfer services on the profitability of Micro and Small Enterprises. The sample size was 57 respondents and 52 responded giving a response rate of 91%. The data collected from the questionnaire was sorted, edited, analyzed and then presented in the tables and charts for quick reference and to provide insight into the response from the opinions of the respondents. Some of the major findings included that almost each business own or have used a mobile phone in their business at 98%, education level and duration of running the business has an effect on the profitability of that business. Other major findings were that Mobile Money Transfer services forms the highest percentage of usage among the respondents at 86% as opposed to traditional banking hall and money transfer companies at 10% and 4% respectively as it reduced their transport cost and risks when sending cash. Mobile Money Transfer services were also rated above average with 58% and have assisted MSEs to reduce costs as it reduced the number of times going to the bank i.e. time saving on queuing, it left individuals with more time to run and monitor their businesses one on one, transaction fees are lower than those charged by most banks and it's easier to use it when paying for clients and customers in their rural areas. Most MSEs also felt that mobile money transfer services have helped to increase sales revenue as mobile phones are mostly used by businessmen to communicate with customers and suppliers and also has helped the business to grow and as a result increased the productivity and profitability of the business because the service can be used at anytime while purchasing goods and services.

## Conclusions

There are high chances for all the people in the rural areas to own a mobile phone and thus there will be increased use of the Mobile Money Transfer services among the MSEs in rural areas. This study identified that mobile money transfer service increases market share as more and more people are increasingly using the mobile payment services and a more extensive research should be conducted to bring out those factors that are necessary to ensure that the micro businesses embrace the digital technology in the conduct of their business and enhance their business performance not necessary for social network.

There is evidence that the entrepreneurs have accepted the use of the technology and hence the governments should provide appropriate policies to facilitate the use of the mobile technologies in the MSEs and explore the viability of mobile commerce in the informal sectors. The policy makers, ministry of finance, ministry of labor and human resource development and mobile service providers should educate the masses more about the benefits of integrating and using mobile technologies to enhance small businesses and also the need to enhance technical capabilities of entrepreneurs to allow widespread use of emerging technologies in MSEs.

## Recommendations

The mobile phone handset performs the same tasks as input and output devices of a computer, and since the phone is widely spread among the MSEs in the informal sector, chances of all customers and business people having the phone in the rural area are very high. The researcher recommends that institutions should come up with policies to educate individuals on the importance of ICTs also focusing on mobile payments by use of phones but not only computers. The mobile phones have become a springboard for MSEs to be entrepreneurial and hence increase the profitability of a business; they are helping operators in the informal sector to come up with solutions that are specific to their problems, as compared to those imposed on them by outside agencies and as a result it reduces the costs of a business.

Education level is key to any business set up, and according to the results of the study, most high school leavers followed by tertiary college then primary school leavers and university graduates are involved in informal sector which implies that this sector is not dominated by illiterate people and unskilled workers as some of the studies have claimed. The operators in this sector are hard working and creative and should be made aware of the enormous opportunities that are availed by the use of mobile phones for business. Appropriate premises would also ensure that the MSEs have access to electricity, which is crucial for the possession and usage of mobile phones.

### Suggestions for Further Research

Research is needed to measure the extent to which internet enabled mobile phones and mobile money transfer services have diffused in the informal sector and their effects on import/export.

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