

E-Money for Enhancing MDGs at Bottom of the Pyramid: A Case Study of Mpesa Agents in Kenya

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Abstract

The general objective of this study was to investigate the implications of mobile money (M-Money) in society and document the experiences of respective service agents. Specifically, this study sought to determine performance and how business partnerships and agent networks had responded to the developments in the m-money economy. Implicit in the study were challenges that the agents face in doing their business, the potential for m-transaction's enhancement of MDGs at the bottom of the pyramid and challenges regulators must confound to create a financial inclusive environment. The research used a case study approach. To do this, the study used a triangulation of exploratory and descriptive research design approaches. The target population consisted of MPESA Agents across the country. The sampling technique used was a combination of cluster and convenient sampling.

With respect to business partnership and agent networking performance, the study found that KCB commanded a disproportionately large control on provision of the float, followed by Cooperative Bank. In most cases the float was between Ksh 5,000 and Ksh 100,000, and the level of the float increased with the age of the business and it was clear that there was a close correlation between the age of the business and the amount of the float. It was also found that most agents served less than 100 customers per day and there was also a correlation between the age of the business and the number of customers. Other pertinent findings showed that the majority of transactions per customer were below Ksh 20,000 the average age of the customer was between 26 and 40 years of age and most of them were men, even though the majority indicated they served equal numbers of men and women.

With respect to business challenges and welfare implications, the study found that fraud was the major challenge followed by a slow system due to network congestion. A challenge cited for not participating in new MKESHO product included technical problems, lack of MKESHO facilities nearby, customer confusion between MKESHO and MPESA, and lack on information. On the issue of welfare implications, respondents felt that the business had improved their welfare through job creation, improved incomes and general livability.

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International Journal of Computing and ICT Research, ISSN 1818-1139 (Print), ISSN 1996-1065 (Online), Vol. 6, Issue 1, pp. 11-23, June 2012.

This study made the following conclusions. First, being a pioneer in this business is no guarantee for leadership. The critical success ingredients include a widespread infrastructure network and appealing to the low income base that constitutes a larger proportion of new entrants into the market. Secondly, the MPESA business fits in with a network model and would therefore grow in value and customer base with length of operation (age). Thirdly, the amount and availability of the float is not a major impediment in this business. The main threat for this business has to do with problems of fraud, the slow system arising from network congestion and security exposure for agents handling money as well as confusion between the new and old product as with the case of customers confusing between MKESHO and MPESA. Finally, the MPESA concept enhances accessibility to financial markets among the poor and thus benefits those at the bottom of the pyramid.

Key Words: Agent Networks, Bottom of the Pyramid, Business Partnerships, E-Money, MPESA Agents Welfare Implications

IJCIR Reference Format:

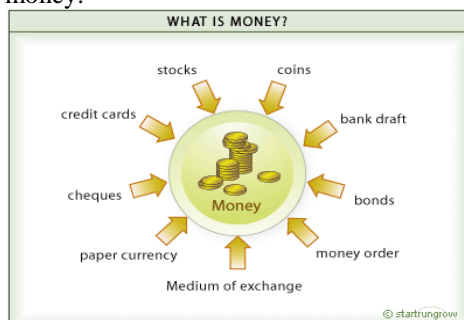
Prof. Francis Wambalaba, Akosa Wambalaba, Philip Machoka and Patrick Afundi. E-Money for Enhanced MDGs at the Bottom of the: A Case Study of MPESA Agents in Kenya. International Journal of Computing and ICT Research, Vol. 6 Issue 1, pp 11-23.

<http://www.ijcir.org/volume6-number1/article2.pdf>

1.0 INTRODUCTION

1.1 Background of the Problem

Money is a medium of exchange with typical functions constituting transactions and wealth storage. In modern economies, access to money is critical for economic development and banks tend to be the medium for access to money.



Source: Susie Lerner, Safaricom

However, for years, Kenyan banks did not go looking for customers; people instead went searching for the banks. Banks did not locate branches in low income neighborhoods, and were rare in middle income areas. They preferred to focus their investments and growth on corporate and wealthy clients and locate themselves within the city centre.

Some banks had exclusive services for those earning over Kshs 100,000 (\$1,350) per month. Rural regions were ignored. The few with bank accounts traveled miles away to access banks. Conditions for opening an account were stringent, requiring a steady flow of monthly deposits. At least three customers had to write recommendation letters to open an account.

The financial relationship between banks and most customers was of suspicion and limited to deposits and withdrawals. This situation was even worse for those who wanted to borrow money from banks. The interest rates between the 1990's to early 2000, averaged at 40%. However, money transfer companies like MoneyGram and Western Union penetrated some of these markets, but remained expensive and often elitist. They focused on the high end customer and completely ignored the poor. The Post Office also offered money-order transfers, but these services operated only during the five working days. Bus companies too started to ferry money in "letter parcels" from urban migrants to rural areas with risks of money hidden in the package disappearing.

Therefore, the entry of Safaricom with its widely distributed agent network was a revolution in the financial sector for most Kenyans, especially those at the bottom of the pyramid. In 2007, Safaricom de-crowned the myth of banking for the privileged by developing M-PESA, a mobile based money system that allowed the majority of Kenyans quick, easy and convenient access to money transactions, at an affordable price. M-PESA allowed Kenyans to borrow, save and pay for services and products easily, (Tavneet Suri Banking on Money). It then embarked on making the *mobile phone a financial tool* for easy access and money transfer. It thus introduced *formal financial inclusion* that was less risky and widely accessible. This introduced 90% of Kenyans who did not have bank accounts to the possibility of being part of the formal financial world of legal short term money savings and money transfers. Money that was previously transferred clandestinely could now be sent legally, in real time and anywhere within the country. Within three years, the M-PESA customer base had grown from 0 to 11.89million which represented a quarter of Kenya's population (Sunday Nation, 15 August 2010 30). By July 2010, M-PESA had transferred Kshs525.85 billion since its inception in 2007 and in July 2010 alone, Kshs 33 billion was transferred compared to Kshs. 20 billion for the whole of 2009. According to Safaricom records by April 2011, Safaricom had successfully registered 14,008,319 Kenyans to mobile technology and made communication possible and had a network of 27,988 agents countrywide.

1.2 Statement of Problem

In 2008, on realizing that their core business was threatened, banks became antagonistic towards Safaricom, citing M-PESA product as an illegal bank service. They petitioned regulators – Communications Commission of Kenya (CCK) and Ministry of Finance to declare the M-PESA service illegal. The CCK did not agree. Similarly, there was political goodwill from the finance minister who was advised by the Central Bank (CBK) that the concept was safe from being used as a money laundering conduit. Ironically, boxed in by the M-PESA developments, banks began playing catch up. Together with mobile telephone companies, they began lobbying a very receptive regulator to legislate laws that would facilitate partnerships across both sectors, leveraging on their competitive advantages. In response, legislation was passed that made it possible for partnerships between the banking and mobile sector. For example, Safaricom and Equity bank developed a collaborative revolutionary E-banking tool known as M-KESHO (an M-PESA Equity account). It was launched in May 2010 and within a month, 400,000 M-KESHO accounts had been opened, literally a miracle for a country where accounts had been stagnant at 5% for decades, (*Sunday Express*, July 25th 22). Other examples included Family Bank which introduced a mobile banking service called “Pesa Pap” using Safaricom’s M-PESA platform. Similarly, Kenya Commercial Bank re-launched “KCB Connect” in 2009 in partnership with Safaricom and by June 2010, it had a customer base of over 230,000.

Given such rapid developments within three years, it is critical that scholars document and examine their implications to society and suggest pertinent policy and operational adjustments that would ensure a sustained conducive climate for the poor to participate extensively in the money economy and enhance prospects towards the achievement of Millennium Development Goals (MDGs). Secondly, there was need to engage businesses to explore agent network strategies for accessing low income groups and challenge policy makers to adapt by being pro-active and anticipating these dynamic socio-economic changes.

1.3 General Objective of the Study

Therefore the general objective of this study was to investigate the implications of mobile money (M-Money) in society with respect to service agent experiences and perceptions.

1.4 Specific Research Objectives

This study attempted to address partnership issues with respect to the MPESA Agents. Specifically, this study sought to:

- 1.4.1 Determine how business partnerships and agent networks had responded to the developments in the m-money economy and the nature of the business environment
- 1.4.2 Assess the challenges that the agents faced in doing their business as well as the welfare implications of this business

1.5 Scope of the Study and Research Design

This study targeted M-PESA service agents in a sample of urban areas in Kenya, including Kakamega, Kisumu, Machakos, Maragua, Meru, Mombasa, Murang'a, Nakuru, Thika and Voi. The research design was a case study that was descriptive in nature using primarily interviews and observations. The study took place from December 2010 through May 2011. A total of 129 agents participated in the study.

1.6 Significance of the Study

The research will benefit; 1) *Service Providers, i.e.*, findings will provide feedback to mobile phone companies and financial institutions about market opportunities for accessing those at the bottom of the pyramid. It will also inform them on system challenges facing agents in growing their businesses, including specialized areas of training; 2) *Policy Makers*, Findings will provide data on the major beneficiaries of agents as SME's and whether this income activity has made a significant contribution towards achieving some millennium development goals and if mechanisms for public funding are needed to support M-PESA SME's. These findings will also present a profile of the attitude of low income earners towards money and their needs for creation of an effective financially inclusive environment as well as meeting the Millennium Development Goals (MDGs); 3) *Low Income Groups, i.e.*, findings provide insight to interventions needed to make the businesses expand into other financial service areas and also help service providers design products that meet the needs of those at the bottom of the pyramid and for policy makers to create a conducive environment for participation of the poor in a money economy; and 4) *Researchers i.e.*, a platform for multidisciplinary approach to researching on the role of money in society, especially from economic, sociological and political perspectives. It will hence enhance efforts to design methodologies towards financial inclusion of the poor and mainstream m-money as a plausible strategy towards MDGs.

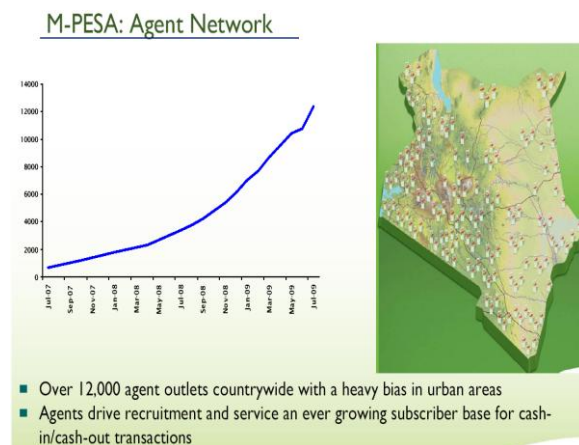
2.0 LITERATURE BACKGROUND

2.1 Introduction

This section will briefly review the literature related to m-money in general, and specifically with respect to the developments of the M-PESA money transfer concept in Kenya. The section is organized according to the specific research objectives. These include the review of literature on business partnerships and agent networks as well as welfare implications to participants.

2.2 Business Partnerships and Agent Networks

In January 2010 a new law governing partnerships between mobile telephone companies and banks was passed (Standard, Media 2010). Safaricom and Equity Bank soon developed M-KESHO (an M-PESA Equity account). "Kesho" is a Kiswahili word that means "tomorrow" which was used in the context of a futuristic connotation which changed the financial landscape in Kenya by expanding the range of financial options available to the poor. According to Mr. James Mwangi, CEO Equity Bank "at the village level, the shopkeeper will allow his customers to deposit and withdraw money as they buy sugar and milk" (Standard Media, 2010). M-Kesho, described as the world's first bank account "on your phone", allowed virtual interbank transfers. Safaricom had 11.89 million M-PESA customers who used their accounts as short term saving accounts. Safaricom also had the most extensive country wide network of 19,500 agents. And by March 2010, it had established 30 retail outlets throughout the country that made it easy to move money in real time and offer customer care.



Source: Safaricom Presentation

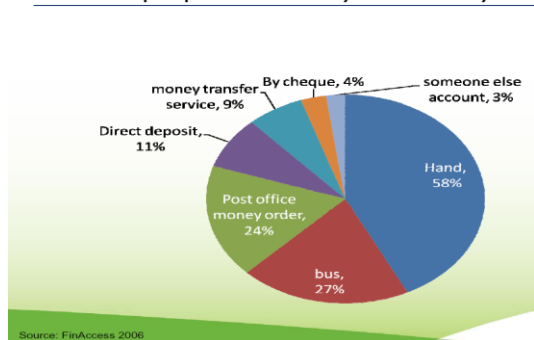
Kenya Commercial Bank (KCB), the oldest indigenous bank in Kenya also partnered with M-PESA. It has the largest bank network in East Africa and branches in Southern Sudan. The partnership allowed KCB customers to withdraw or deposit money from their KCB accounts through M-PESA onto their mobile phones and vice versa (Sunday Express, July 25th 2010. 21).

By 2010, Safaricom had formed partnerships with 300 firms in the public and private sector. “The growth of the M-PESA service had gone beyond its primary role of mobile money transfer to include value added services such as the “Pay Bill” and “Bulk Payment” functionalities” (*Sunday Express*, July 25th 2010. 21). To pay electricity bills, previously one would spend hours on queues to pay in one of a few offices serving a population of 2 million in Nairobi. Now all one needed to do was to M-PESA (forward by phone text) ones payment and receive a text message confirming payment. Self-employed individuals could now pay their monthly social health insurance through the National Health Insurance Fund contributions using M-PESA. Banks such as Consolidated Bank now offered E-cell banking allowing customers to access mini-statements, purchase airtime, transfer funds within bank accounts, receive balances and stop check payments. Family Bank offered a mobile banking service called Pesa Pap using Safaricom’s M-PESA platform. One unique service offered by Family Bank through Pesa Pap was salary advance and loan repayments (*Business Daily Africa*, June 4 2010 1).

2.3. Challenges and Welfare Implication to Participants

At the time when banks refused to open up new money transfer opportunities, money transfer companies like Money Gram and Western Union were already efficient, reliable, but expensive. The Post Office also offered money order transfers, but operated only during the five working days, took very long to deliver, many times got lost within the system and one had to wait long hours to be served. Bus companies took the “courier’s services” model to ferry cash in the name of “letter parcels” from urban migrant workers to rural areas. It was more efficient, took a day and one could pick the “package” any day at the nearest bus office. Since envelopes were sealed, all contents arrived safe. However, this was still not as convenient, since bus offices were few, apart and risk of money hidden in the package disappearing. It was thus subject to theft without proof for recovery.

How did people send money within Kenya?

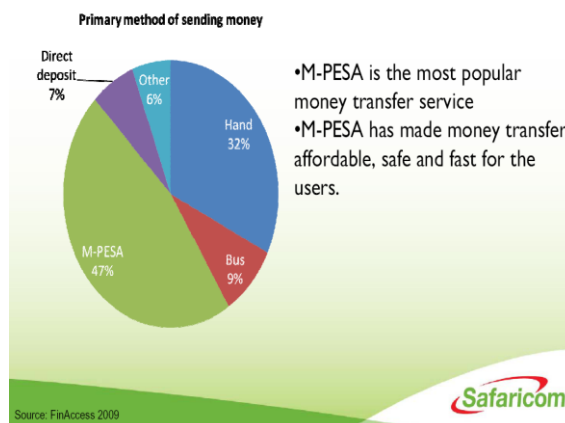


Source: Safaricom Presentation

Banks were inaccessible and did not locate branches in low income neighborhoods and preferred to focus on corporate and wealthy clients. One bank, for example, had special branches exclusively serving those with over Kshs 100,000 per month.

As pointed out earlier, by 2007, Safaricom had successfully introduced 10 million Kenyans to mobile technology and de-crowned the myth of banking being for the privileged. This introduced 90% of Kenyans who did not have bank accounts to the possibility of being part of the formal financial world of money transfers, legally. In January 2010 a new law governing partnerships between mobile telephone companies and banks was passed as part of the Financial Sector Deepening (FSD) programme supported by the UK’s Department for International Development, the World Bank, and the Swedish government aimed at increasing access to financial services in marginalised areas of the country (*Standard*, 2010). The legislation made it possible for Safaricom to enter into its **3rd technological** growth level, i.e., financial *services expansion*.

How do people send money now?



Source: Safaricom Presentation.

By July 2010, the M-PESA customer base had grown to 11.89million, from 7.38 million, the same period a year before (*Sunday Nation*, 15 August 2010 30) which was approximately 25% of Kenya's population. It had transferred 525.85 billion since its inception in 2007. In July 2010, Kshs 33 billion was transferred compared to Kshs. 20 billion for the whole of 2009.

3.0 THE RESEARCH METHODOLOGY

This research sought to determine how business partnerships and agent networks had responded to the developments in the m-money economy and the nature of the business environment. In addition, the research wanted to understand the challenges that the agents face in doing their business as well as the welfare implications of this business.

3.1 Research Design

The research design used a case study approach. As a case study, most of the analysis is qualitative in nature. To do this, the study used a triangulation of exploratory research design as well as descriptive research design approaches. The reason for an exploratory approach was two pronged. First, given a small budget, it was felt that covering one urban area would not provide a good national perspective and hence need to spread thin but across the country. Secondly, it was felt that using the grant as a national pilot test would provide better insights for designing a more comprehensive national study for future research. The goal for the descriptive research design approach was to identify and document performance issues and patterns emerging from interactions with the service provider on one hand and customers on the other.

3.2 Population and Sampling Design

The target population consisted of M-PESA Agents across the country. The sampling technique used was a combination of cluster and convenient sampling. Thus, the population was divided up into regional clusters based on the old provincial boundaries to ensure that each of the provinces was represented. Within each province, a convenient sampling was used to select target urban areas for data collection. These included Kakamega, Kisumu, Machakos, Maragua, Meru, Mombasa, Murang'a, Nakuru, Thika and Voi. Within each urban area, a convenient sampling was used to identify participating agents in terms of their willingness to participate. Therefore, the sample size constituted 129 MPESA agents in the ten urban areas covering each of the old provinces (see Table 4.1 on Respondents below for the sampling distribution).

3.3 Data Collection and Analysis

The research collected information through interviews of M-PESA service agents to develop a profile of business partnership and agent networking experiences as well as welfare implications. The study also used extensive desk top literature review with emphasis on recent developments in the industry and respective implications.

With respect to business partnerships and agent networking, the focus was on both the supply side (suppliers of the float and the amounts) and demand side (type of customer and the value of transactions). In terms of

challenges, the study investigated issues of lack of the float, challenges of adding new product lines, and types of risks in this business. With respect to welfare implications, the study simply wanted to determine the effect of these types of business on both the agent and the communities they serve.

It was anticipated that findings from the surveys and interviews would help generate a general profile of transformative strategies and policies. Hence, part of the analysis was descriptive including tabular presentations of percentages of suppliers of floats, users and levels of services provided as well as types of challenges and impacts of the service. In addition, a small amount of inferential analysis was done using both correlation and cross tabulation analysis, specifically on the relationship between the age of the business and both the value of the float and the number of customers served.

4.0 RESEARCH FINDINGS

4.1 Introduction

This research sought to determine how business partnerships and agent networks had responded to the developments in the m-money economy and the nature of the business environment. In addition, the research wanted to understand the challenges that the agents faced in doing their business as well as the welfare implications of these businesses. With respect to business partnerships and agent networking, the focus was on both the supply and demand sides. On the supply side, the study wanted to know who was providing the agents with the float and what the value of the float was. On the demand side, the study wanted to know the agents' typical number of customers, the typical value of customer transactions and the type of customers they were serving. In terms of challenges, the study investigated lack of the float, challenges of adding new product lines, and types of risks. With respect to welfare implications, the study simply wanted to determine the effect of these types of business on both the agent and the communities they serve.

4.2 Demographic Distribution

These findings are based on 129 returns from participating Safaricom M-PESA agents in ten urban areas including Kakamega, Kisumu, Machakos, Maragua, Meru, Mombasa, Murang'a, Nakuru, Thika and Voi. The majority of the respondents were in Kisumu (27.9%), Meru (16.3%), Nakuru (11.6%) and Mombasa (10.9%).

The research was also interested in determining the length the agent had been in business. The majority (37.1%) had been in business for less than one year, while 25.8% had been in business for one to two years and the same percent for two to three years. Given that this was a brand new segment of the industry, it is difficult to determine whether the market pyramid with a triangular large base with narrow tip is a reflection of growing market and drop out respectively or a combination.

When asked which types of mobile money services the agents provided, the majority (37.8%) provided M-PESA service. Most of them provided deposit and withdrawal services, with very few providing "paybills", "M-KESHO" or sim replacement. Ironically, some (5.5%) indicated they provided Zap service, 3.9 provided Yu-Cash service and 1.6% provided Orange service all of which are MPESA rivals.

4.3 Agent Networking Partnerships and Business Environment

This research sought to determine how business partnerships and agent networks had responded to the developments in the m-money economy and the nature of the business environment. Specifically, on the supply side, the study wanted to know who was providing the agents with the float and, what the value of the float was. On the demand side, the study wanted to know the agents' typical number of customers served the typical value of customer transactions and the type of customers they were serving.

Hence, one of the agent partnerships the research sought to identify was who was providing most of the float for agents. While Commercial Bank of Africa was the first to venture into this business, other banks seem to have moved fast to establish themselves as key providers of float. From data compiled, KCB commanded a huge lead with 42.9% followed by Cooperative Bank at 16.5% while 13.2% of the respondent agents supporting the float internally, especially those with multiple outlets making internal transfers. Equity Bank controlled 9.9%, Commercial Bank of Africa settled for 5.5% with Barclays and Consolidated Bank taking 4.4% each.

The study also wanted to estimate the daily float value of most of the agents. The majority held a float of 50,001 to 100,000 at 36.5%, closely followed by the daily float of 5,001 to 50,000 as shown in table 4.1 below. There was however a fairly good number of agents whose floats were over 100,000 including about 8.7 with a float of 100,001 to 150,000 while 9.6% had a float of 150,001 to 200,000 and another 9.6 with a float of over 200,000.

Table 4.1: What is the daily value of your float?

Amount of Float	Frequency	Percent
0 – 4,999	1	0.9%
5,000 – 50,000	40	34.8%
50,001 – 100,000	42	36.5%
100,001 – 150,000	10	8.7%
150,001 – 200,000	11	9.6%
Above 200,000	11	9.6%
Total	115	100%
Missing Data	14	

Further analysis was done to assess the relationship between the value of the float and the age of the business. A correlation analysis established the existence of such a relationship as shown in table 4.2 below.

Table 4.2: Correlation Analysis

Correlations			
		How long has this business been operational?	What is the daily value of your float?
How long has this business been operational?	Pearson Correlation	1	.249**
	Sig. (2-tailed)		.005
	N	127	123
What is the daily value of your float?	Pearson Correlation	.249**	1
	Sig. (2-tailed)	.005	
	N	123	124

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

From table 4.2, there is a strong correlation at 1% significance level ($r=0.249$, $p<0.01$) between how long a business has been in operation and the value of the daily float. This was further enhanced by the cross tabulation analysis as shown in table A1 in the appendix. This shows that the more the years of operation, the higher the chances were for a bigger float. This finding was substantiated by a follow up question which inquired to know from the agents if their level of the float increased with time. About 70% of the respondents answered in affirmative.

Further investigation revealed that most of the agents were not engaging in very large volume operations. The study showed that almost a half of the agents (41.7%) served between 51 and 100 customers per day, followed by another 31,7% serving 1 to 50 customers per day with a combined total of 73.4% of the agents serving 1-100 customers per day. There were 16.7% serving 101-150 customers per day and only 8.3% served more than 200 customers per day. And when analyzed for correlation it was found that there was a strong correlation not only between the age of the business and the value of transactions, but also the age of business and the number of customers. Thus, as shown in table 4.3 below, there is a significant correlation between the duration that the business had been operational and the value of the daily float ($r=0.249$, $p<0.01$). The table also showed a significant correlation between the duration that the business has been operational and the number of customers ($r=0.308$, $p<0.01$). This is typical characteristic of a networking business.

Table 4.3: Correlation Analysis

		Correlations		
		How long has this business been operational?	What is the daily value of your float?	On average, how many customers do you serve daily?
How long has this business been operational?	Pearson Correlation	1	.249**	.308**
	Sig. (2-tailed)		.005	.000
	N	127	123	127
What is the daily value of your float?	Pearson Correlation	.249**	1	.414**
	Sig. (2-tailed)	.005		.000
	N	123	124	124
On average, how many customers do you serve daily?	Pearson Correlation	.308**	.414**	1
	Sig. (2-tailed)	.000	.000	
	N	127	124	129

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

It was also clear that almost all of the transactions were less than Kshs10,000 worth at 73 percent and about 90% had transactions less than Kshs20,000. However, there were about 1% of agents who had carried transactions above 101,000 worth. This could be attributed to the fact that the increase of the maximum amount for transactions from 30,000 was not common knowledge to most of the customers, and hence very few large sum customers bothered to patronize the service or that reflected regions with small scale business activities, type of income generation activities and perhaps due to lower standards of living, hence the lower value transactions.

The study wanted to establish the demographic composition of customers. It was found that the majority (27%) were in the 36-40 age bracket while 26% were between ages 31-35 with a combined total of 70% in the 26-40 age bracket. The age brackets also pointed out that the majority (49.6%) of their customers were balanced between men and women. However, 39.5% indicated that the majority of their customers were men, while in others (9.3%) indicated that the majority of their customers were women. The region where women seemed to carry a fairly better participation is Maragua where the distribution was 50% men and 50% women. Kakamega, Voi and Nakuru also showed a good representation of women while Murang'a, Mombasa and Machokos showed a higher representation of men.

4.4 Business Operational Challenges and Welfare Implications

In addition to understanding the business networking environment, the research wanted to understand the challenges that the agents face in doing their business as well as the welfare implications of this business. In terms of challenges, the study investigated issues of lack of the float, challenges of adding new product lines, and types of risks in this business. With respect to welfare implications, the study simply wanted to determine the effect of these types of business on both the agent and the communities they serve.

The focus of the first question in this section was to determine the potential for lack of the float as an impediment to the transactions. Lack of the float did not seem to be a major impediment. For example, 56.1% of the respondents indicated that they had never turned a customer away due to lack of a float. About 31.8% indicated they may have turned away 1-5 customers on an average day due to lack of a float, about 6.5% may have turned away between 6-10 customers in an average day while the remaining 5.6% indicated they may have turned away over 10 customers on an average day due to lack of a float.

For those incidences where they had to turn customers away due to lack of a float, the agents were further asked about any challenges they had experienced with the float. Most agents seemed to point to other general systemic problems that had nothing to do with the float. The research was therefore curious to learn about these general issues. Some of the major concerns included slow system or network congestion (26.8%), fraud (19.8%), and lack of float (16.4%). Other explanations are captured in Table A2 in the appendix.

At the time of the survey, a new M-Kesho product had recently been introduced into the market. The research therefore wanted to know how many of the agents were participating or offering this product. An overwhelming majority (80.7%) were not participating at all with only 5% indicating they were participating. About 5.9% indicated they would not participate due to problems with the money system, 3.4% indicated they could not

participate since they were not registered, and about 5% planned to participate. When asked why they did not participate, several reasons were given including technical problems, lack of MKesho facilities nearby, customer confusion between MKESHO and MPESA, etc.

In terms of risks that agents face in their business, the majority (37.6%) pointed out that fraudsters were the major risk for an agent. Most of it was attributed to fake currencies. Other risks included system delays (17.6%) and security at 11.8%. Further concerns included customer resistance to produce ID cards (5.9%), lost money (4.7%), unreachable customer care (4.7%), float reduction (3.5%) and several others.

The research was also interested in how the business had impacted the personal lives of the agents and/or their employees. The data revealed that most of the respondents felt that the impact has been positive, including 32% who indicated improvement in personal lives, 17% indicating exposure to business environment and 15% indicating general improvement in life. On the other extreme were 6% who felt this business exposed them to fraud.

Finally, respondents were asked about their perception of the impact of M-PESA and similar other money transfer technologies on the lives of people in general. Most of the respondents (47.9%) felt that M-PESA and similar other technologies made people's lives easier, while another 31.5% felt it improved financial services. A further 13.7% felt it created jobs and 6.8% felt the technology benefited the previously unbanked. Table A6 in the appendix provides additional comments.

5.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

In this final section of the report, a summary of the study is presented to provide the context of the research and as a basis for the subsequent discussions. This is followed by discussions of the findings including implications. Based on these discussions, the report provides overall conclusions followed by recommendations for improvement and recommendations for further studies.

5.1 Summary of the Findings

The goal for the research was to identify and document performance issues and patterns emerging from interactions with the service provider on one hand and customers on the other. The target population consisted of M-PESA Agents across the country. The sampling technique used was a combination of cluster and convenient sampling.

With respect to business partnership and agent networking performance, the study found that KCB commanded a disproportionately large control on provision of the float, followed by Cooperative Bank. The Commercial Bank of Africa which was the original player came in a distant fifth. Most of the float was between 5,000 and 100,000, in most cases, the level of the float was increasing with the age of the business and it was clear that there was a close correlation between the age of the business and the amount of the float. It was also found that most agents served less than 100 customers per day and there was also a correlation between the age of the business and the number of customers. Hence, implications of a typical network type of business where the longer one is in business, the higher the value of the float extended and the more the customers. Other pertinent findings showed that the largest amount of the transaction per customer was below Kshs20,000, (The minimum transaction = 30 Shillings; The Maximum = 125,000 shillings; The median transaction is 5,000 Shillings) the average age of the customer was between 26 and 40 years of age and most of them were men, even though the majority indicated they served equal numbers of men and women.

With respect to business challenges and welfare implications, the study found that while an overwhelming majority of respondents did not experience lack of a float to serve their customers, a fairly large number felt fraud was the major challenge followed by a slow system due to network congestion. Similarly, when asked to specify types of risks in the business, they also pointed out the problem of fraudsters, slow system and security concerns. Another challenge was related to participation in the new MKESHO product in which an overwhelming majority did not choose to participate. Several reasons cited for not participating included technical problems, lack of MKESHO facilities nearby, customer confusion between MKESHO and M-PESA etc. On the issue of welfare implications, respondents felt that the business had improved their welfare through business or job creation, improved incomes and enhanced livability. They also felt that their communities have benefited from the fact that the service had made their lives easier and improved financial access in the community.

5.2 Discussions

5.2.1 Business Partnership and Agent Network Performance

One of the key issues of interest in the study was to gauge the performance of business partnership and agent networking. Given the pioneer participation of the Commercial Bank of Africa, it was anticipated that this bank would continue to dominate the market as the main source of the float. However, the study found that KCB commanded the largest share of the market followed by Cooperative Bank with Commercial Bank of Africa coming in fifth. This might be attributed to the large branch network that KCB commands and the market appeal of Cooperative Bank among the low income groups respectively. The latter is supported by the fact that equity which also has an appeal among the low income groups, came in fourth only behind internal floats by large agents with multiple outlets, given that the needed float was between Kshs5,000 and Kshs100,000, which is not a large deposit base for agents to manage.

Given that the M-PESA business fits in with a network model, it was expected that it would grow in value and customer base with length of operation. Thus, over time, an agent would be able to accumulate enough float for internal support and also gain credibility among the banks providing the float and reliability in the eyes of the customers. The study confirmed this hypothesis. Thus in most cases, the level of the float increased with the age of the business and it was clear that there was a close correlation between the age of the business and the amount of the float. It was also found that most agents served less than 100 customers per day and there was also a correlation between the age of the business and the number of customers.

Finally, it was implied in the literature that this service will increase access to financial markets among the low income populations. Typically, women and the young tend to be predominant among these populations. The findings in this study however were mixed. Men tended to be the majority participants, the average age was between 31 and 50 and the value of the most frequent transaction ranged from 500 to 50,000. However, further analysis reveals that as much as the high income groups have been participating, and thus pushing the maximum allowable amount for transaction from 30,000 to 70,000 and later above, compared to the previous situation, more people from the low income brackets are now participating in the financial markets. This logic too holds for the young and for women as well whose proportionate level of participation is now higher than it was before.

5.2.2 Business Challenges and Welfare Implications

With respect to business challenges and welfare implications, it was hypothesized that the key challenge for agents would be access to the float, especially given the resistance by banks to allow for the M-PESA concept in the first place. However, the study found that an overwhelming majority of respondents did not experience lack of a float to serve their customers. This could be explained by several factors. First, with the support of the concept by regulators (the Central Bank and the Information Communications Commission) along with the policy makers (Ministry of Information and Technology), the banks had no choice but to turn a seeming problem into an opportunity. Secondly, related to this, was the new competition among banks to capture part of the new found market niche. And finally, because of the low threshold for the float, most agents were able to support their own float, and hence expanding sources of the float.

Based on concerns by banks and findings from the previous study, challenges were also envisaged in terms of money laundering, security for agents handling cash and for customers in terms of technological complications, the results were mixed. The issue of money laundering did not feature at all. Instead, a fairly large number felt fraud was the major challenge. The issue of security did not come up at the initial inquiry about challenges either, but only featured on the follow up question about risks. As for technological challenges for customers, it turned out that this was instead a challenge facing Safaricom as reflected by the slow network system due to network congestion. However, the area where customers seemed to have faced challenges was operational, specifically with the adoption of the MKESHO service. The reasons cited for not participating included technical problems, but also lack of MKESHO facilities nearby and customer confusion between MKESHO and M-PESA etc.

Finally, the study hypothesized that the M-PESA concept would enhance accessibility to financial markets among the poor and thus benefits those at the bottom of the pyramid. The findings seem to have supported such a hypothesis since most respondents felt that the business had improved their welfare through job creation, improved incomes and enhanced livability. They also felt that their communities had benefited from the fact that the service had made their lives easier and improved financial services in the community.

5.3 Conclusions

From the discussions above, it appears that there were mixed findings from the study from the perspectives of Business Partnership and Agent Network Performance as well as Business Challenges and Welfare Implications

5.3.1 Business Partnership and Agent Network Performance

Based on the takeover of the lead by KCB from CBA we can conclude that being a pioneer in this business is no guarantee for leadership. The critical ingredients for leadership include having a widespread infrastructure and appeal to the low income base who constitute a larger proportion of new entrants into the market. The later is supported by the performance of Cooperative Bank and Equity Bank. It is also the conclusion of this study that the M-PESA business fits in with a network model and would therefore grow in value and customer base with age. Thus, over time, an agent would be able to accumulate enough float for internal support and also gain credibility among the banks providing the float and reliability in the eyes of the customers. Finally, it is concluded that the MPESA concept attracted a fairly large number of low income groups, the young and women into the financial markets. However, as the minimums allowable by the law increased, those who were fairly well to do, typically older people and especially men joined the market and gradually increased in number.

5.3.2 Business Challenges and Welfare Implications

With respect to business challenges and welfare implications, it can be concluded that the amount and availability of the float is not a major impediment in this business. This can be explained by the public policy support for the concept, the competition among banks to capture part of the new found market niche, and the low threshold for the float which makes it possible for most agents to support their own float. It is also the conclusion of this study that the main threat for this business has to do with problems of fraud, the slow system arising from network congestion and security exposure for agents handling money. Another related challenge is that of introducing new products in the market which may not have an adequate and widespread infrastructure as well as potential for confusion between the new and old product as was with the case of customer confusion between MKESHO and M-PESA. Finally, this study concludes that the M-PESA concept would enhance accessibility to financial markets among the poor and thus benefit those at the bottom of the pyramid. This is supported by the respondents indication that their business had improved their welfare through job creation, improved incomes and general livability and that their communities had benefited from the fact that the service had made their lives easier and improved financial services in the community.

5.4 Recommendations

Based on the findings, discussions and conclusions of this study, two types of recommendations are proposed. First, recommendations for improvement are presented. Secondly, this is followed by recommendations for further study. With respect to business partnership and Agent Network Performance, this study makes the following recommendations. First, financial institutions that intend to support a network of Agents will need to develop an extensive support infrastructure and pitch their appeal to capture a market niche among those at the bottom of the pyramid, especially targeting female agents. Secondly, it is also recommended for prospective and existing agents persistence over time and cultivation of multiple outlets is a critical strategy for survival and growth of this business and possibly similar other network type of businesses. And finally, it is recommended that policy makers and regulators not only provide a strong institutional framework for M-PESA type of services as a strategy for enhancing access to financial markets among those at the bottom of the pyramid, but also to create opportunities for participation of those in high income brackets as a means of creating a critical mass for sustaining and growing the product and similar other.

With respect to business challenges and welfare implications, this study makes the following recommendations. First, there is need continually assess and strengthen public policy in favor of the M-PESA types of concepts including enhancement of competition among the financial institutions and allowing of flexibility for agents to support their own floats. Secondly, it is also recommended that a public-private partnership be formed among the agents, financing institutions and the public sector to develop mechanisms for the purpose of reducing potential for fraud, security exposure, and management of new products in the market. Thirdly, and related to the above, it is more importantly recommended that Safaricom and providers of similar services (products) enhance their technological systems and customer service practices to reduce frustration experienced by agents especially when trying to solve time sensitive services. Finally, this study recommends for a public policy approach to enhancement of these types of services as a means of integrating those at the bottom of the pyramid into the financial markets and a partial strategy towards the achievement of Millennium Development Goals (MDGs).

As previously pointed out, due to limited funding, this research was designed as an exploratory pilot study to provide insights into the agent segment of the m-money transfer business. It was therefore limited in scope and its findings may not be widely generalized. It is therefore the recommendation of this study that given the insights so far gathered, a more comprehensive study is done to cover a larger set of the population, including the number of urban areas covered as well as rural shopping centers. The study should also be more segmented so as to distinguish practices by the sizes of the agents, types of location, characteristics of customers, nature of the sources of the float and the type of the service provider to include Airtel, Yu, Orange, and similar other providers.

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Acknowledgement: "This paper was presented at The First international conference on mobile money (AMMREC2012) whose theme was 'Evidence of Financial Inclusion Through Mobile Technology', organised by the Africa Mobile Money Research (AMMREC) initiative of the School of Computing and Informatics (SCI), University of Nairobi, Nairobi, Kenya, April 2 -3, 2012".