

Can the success of M-PESA be repeated?

– A review of the implementations in Kenya and Tanzania

Gunnar Camner & Emil Sjöblom

ABSTRACT

This paper puts forward explanations and backgrounds to the remarkable difference in user uptake of the m-banking service M-PESA in Tanzania compared to the same service in Kenya. Data gathered from user and industry interviews, conducted during a field study in Tanzania between March-May 2009 is together with literature from Kenya used to compare the m-banking environment in the two countries.

M-PESA is provided by mobile network operators (MNOs), Safaricom in Kenya and Vodacom in Tanzania. Both are the leading MNO in their respective country although Vodacom has a substantially lower market share and turnover compared to Safaricom. This simple fact resonates in many areas affecting M-PESA, such as: size of marketing budget, M-PESA's priority within the organization and the company's ability to quickly sign up agents and attract initial customers.

Differences in the general economic situation, the geography and political history are also put forward. Kenya has a stronger economy, a higher GDP and a more developed banking system. This has contributed to the financial literacy in the country which is an important factor when communicating a service like M-PESA.

Among the differences between the two implementations, we suggest that the three most influential factors to the user uptake have been the two companies ability to transform their airtime distribution into an agent network, the marketing strategy which needed to be adopted to the specific settings in each country, and the geographical and demographic conditions.

EXECUTIVE SUMMARY

The two countries have a lot in common and according to FinScope there is an even greater number of households dependent on domestic remittances in Tanzania, 28% compared to 17% in Kenya. Remittances were crucial to the popularity of the service in Kenya (Morawczynski 2008). Even though few expected the same startling success in Tanzania as in Kenya, there were indications that a great opportunity was there. Today a bit more than a year after M-PESA's launch in Tanzania it has 280,000 users while the equivalent number for M-PESA in Kenya at that time was over 2.5 million users.

Below are listed factors that have influenced the popularity of the service in the two countries.

- *Market share of the MNO* - Safaricom has 79% of the Kenyan market while Vodacom holds 45% of the market in Tanzania. Safaricom has almost three times the revenue of Vodacom in Tanzania. This resonates in size of marketing budget, overall presence in the country and M-PESA's priority within the organization.
- *Ability to build an agent network* - The existing airtime distribution helps to build the M-PESA agent network. Safaricom deals with around 1000 super dealers for airtime distribution while Vodacom deals only with six. Leveraging this, Safaricom enrolled 300 suitable agents at the launch of M-PESA. These were medium sized dealers with multiple outlets with an active business relationship to Safaricom in place. In Tanzania however, 80% of the agents (in May 2009) were independent single shop agents with connections only to Vodacom. A more tiered setup is needed to scale the service efficiently.
- *Marketing* - Safaricom managed to effectively hook into the popular domestic remittances with their slogan "send money home". Vodacom have used the same advertisements as in Kenya but have not managed to communicate the use cases of M-PESA. People are aware of the brand but many do not know what it is about or how it functions. The major barriers to accessing financial services in Tanzania are "lack of education in general and financial literacy in particular." (Finscope, 2006). More than half the total population have never heard of a current account. This makes it harder to explain the benefits with M-PESA and demands an educational approach when marketing new financial services.
- *Geography/Demography* - The two countries have about an equally large population of around 40 million people, but Tanzania is twice the size of Kenya. Tanzania's population is more evenly distributed compared to Kenya's so the general density of people is far lower. This means Vodacom in Tanzania faced a greater challenge to reach out with the marketing and to reasonably cover the country with an agent network compared to Safaricom in Kenya.
- *Economy* - Kenya has a stronger economy with almost double the GDP of Tanzania. A crucial difference that among many things dictates the number and capacity of small and medium sized enterprises (SMEs), which constitutes the supply of suitable agents who offers multiple outlets for the MNO.
- *Existing Banking infrastructure* - In 2006, 17% of the people in Kenya were formally banked compared to 8% in Tanzania, this effects overall financial literacy. The number of bank branches per 100,000 inhabitants is 1.38 in Kenya compared to 0.57 in Tanzania. Bank branches is necessary for the agents to handle the cash that is required to run M-PESA.
- *Competitors to M-PESA* - The popular methods of sending money are the same in Tanzania and Kenya. These are asking a friend or relative to deliver the money, to send via a bus company, to remit in kind or to transfer through the postal service or the bank. Though there is one exception, from our research we have found airtime top-up vouchers to be a very popular way of sending money in Tanzania. However, M-PESA is very popular among its users who predict it will become more popular as more people learn about it.
- *Pricing* - In both countries the most common amount to send is just over 20 USD. At this level there is no major difference in transfer cost between the companies. Safaricom charges 3.6% of the amount and Vodacom 4.5%. Safaricom charges more for smaller amounts but quickly becomes less expensive than Vodacom. Even though it is a bit more expensive in Tanzania the alternatives to M-PESA costs substantially more so this has not had any major negative effect.
- *Choice of Technical platform* - Safaricom's M-PESA has STK (Sim Toolkit) as the technical platform, it appears as a native application which easily can be found on the mobile phone's menu. On the downside, the customer often need to change to a new SIM-card. Vodacom have chosen USSD which is easy to implement but offers an inferior experience for the user. Despite this, we found no complaints about the interface among the users in Tanzania and they perceived the service as easy to use.
- *Absence of National ID in Tanzania* - To comply with the international KYC regulations all users have to show ID to register for M-PESA, to withdraw money and in Kenya also when depositing money. In Kenya this has not been a problem but Tanzania lacks a national ID system, so this may be a potential problem. From the users and agents we interviewed in Tanzania very few thought this was a problem and the people who did, thought of it as not an influential one.

INTRODUCTION

To find the recipe to M-PESA's success in Kenya and repeat it in other countries is on the agenda for development agencies, MNOs, payment companies and technical providers. A natural next step was to implement it in neighboring Tanzania where an even greater number of households are dependent of domestic remittances, 28% compared to 17% in Kenya. Not only that, traditional banking is less common in Tanzania, something that could indicate a greater need for a financial service such as M-PESA. A bit more than a year after M-PESA's launch in Tanzania they had 280.000 users, the equivalent number for M-PESA in Kenya was over 2.5 million users. Even though few expected the same startling success in Tanzania the figures presented above indicated that a big opportunity was there.

This paper will present some of the differences in the implementation of the M-PESA service in Kenya and Tanzania. The ambition of this review is to bring together topics that are relevant in the discussion around the service's popularity in the two countries. M-banking services like M-PESA will be launched in many more countries in Africa within the near future, and they have the potential to make financial services accessible for many people. By discussing learnings from two of the earliest examples of m-banking in Africa we see that m-banking can get a very different response in seemingly similar countries.

Knowledge is gathered from academic papers, articles and experiences from a three month field study in Tanzania, March-May 2009, where we interviewed people in the industry, about 80 m-banking users, numerous non-users and agents. The user interviews took place at agent shops in both in rural and urban areas, with participants of different age and gender. We also interviewed users of competing m-banking services. The aim of the study was to get a deeper understanding how the services were being used and which needs they fulfilled. Findings focused on how m-banking services actually are being used, and the factors influencing the usage will be presented in a following paper. Visit our blog for updates: <http://valuablebits.com>

BACKGROUND TO M-PESA

M-PESA is a service developed by Vodafone and is now a product they sell to a few selected global partners. It is a mobile money transfer system aimed towards emerging markets where many still lack access to financial services. It is run by mobile network operators (MNOs) and has the ambition to reach a great number of people in countries where traditional banking often has failed to do so.

MNOs are in a position to implement this type of service because they have a great number of both banked and unbanked customers and an established network of airtime resellers which can be turned into M-PESA agents. The agents handle the cash transactions and customers can deposit or withdraw money from their account at these locations. The mobile phone is then used to handle the account where the main functions are to transfer money to other accounts, check the account balance and to buy airtime.

M-PESA was first implemented by Safaricom in Kenya 2007 where it almost immediately achieved great success. It happened so fast that few were able to study the process and the steps taken in order to make the success happen. When Vodacom launched M-PESA in Tanzania 2008 the response was not as enthusiastic. In Tanzania, the service grows at a slower pace which makes it easier to identify the effects of different actions and strategies.

THE COMPANIES IMPLEMENTING M-PESA

Safaricom launched M-PESA in Kenya in March 2007 and has since become the most famous and probably the most successful implementation of mobile and branchless banking to date. In two years M-PESA has gained 6.5 million registered customers and have 10,000 agents spread across the country. This exceeds by far all other financial services present in Kenya. M-PESA is integrated with an ATM network and Safaricom is currently joining other collaborations. The popularity and usage continues to increase.

	Subscriber Market Share	Subscribers	Revenue
Vodacom	45%	5 million	367 M USD
Safaricom	79%	13.4 million	904.2 M USD

In April 2008 M-PESA was launched in Tanzania by Vodacom. The service was implemented in a similar way as in Kenya, although Vodacom had learned some lessons from the first implementation and made adjustments to improve the service before launching it in Tanzania. Despite this, the user uptake of M-PESA in the country has been much slower compared to its northern neighbor. In June 2009 they had about 280.000 users and 1 000 agents (Rasmussen 2009).

One of the most important factor that decided the initial popularity of the service in each country was the dramatically different position the two companies held

when they launched M-PESA. Safaricom has an astonishing 79% of the Kenyan market while Vodacom holds 45% of the market in Tanzania. The difference in the size of the companies resonates in size of marketing budgets, overall presence in the country and M-PESA's priority within the organization. Still, after more than two years and all the success, Safaricom says M-PESA broke even for the first time in the beginning of 2009 (Slavova 2009). Hence M-PESA is not about generating revenue directly but instead it is part of a strategy to decrease churn and increase "stickiness" to customers. In short, part of M-PESA's aim is to make customers reluctant to switch to an upcoming competitor (Mas and Rosenberg 2009).

Vodacom and Safaricom have different licensing deals with Vodafone. While Safaricom have a split revenue deal Vodacom pays a fee for each registered customer. Safaricom's deal allowed them to build up a customer base and with time increase revenue. Vodacom had expected a higher number of transactions per customer than they got and instead every new customer cost more money than expected. This impacted Vodacom's ability for further investments in the rollout. Since then the licensing model have been renegotiated and the fees lowered but it still based on the number of customers.

Safaricom is part owned by the Kenyan government and UK's Vodafone, and has remained to be viewed as a Kenyan company. Safaricom has a South African CEO which has given the company a reputation of not being affiliated to any specific tribe or political fraction. The post election violence in Kenya 2008 shows the tension present and the advantages for a company to have a reputation of being impartial. Banks who have been linked to political parties have suffered because of it (Morawczynski and Miscione 2008).

Tanzania has been politically stable for a long period of time, and has not seen the same ethnical and political tension. Vodacom is owned by South African Vodacom (Pty) Ltd by 65%, which in turn is owned to 65% by the British company Vodafone. However, the owner structure probably has a negligible effect on the customers' trust in the brand and the company. Vodacom was one of the first MNOs in Tanzania but are now viewed as somewhat expensive and their market share has lately slowly decreased.

AGENT NETWORK

M-PESA uses a branchless banking model (Ivatury and Mas 2008) to enable the service to reach out to previously unbanked communities. Besides making cash withdrawals and deposits possible, the agents also plays an important

role in registering users, handling the KYC and educating new users.

When Safaricom and Vodacom launched M-PESA they both built the agent network from their existing airtime distribution channel. However, this distribution channel is different in the two companies. At the start of M-PESA Safaricom had about 1,000 airtime retailers, many of these had multiple outlets. Of these 1,000 airtime retailers 300 joined as M-PESA agents at the launch. Vodacom distribute their airtime through only six national retailers, whom in turn sell the airtime along to their partners. Vodacom then reached out to these end retailers to turn them into M-PESA agents. Today 80% of Vodacom's M-PESA agents are single independent businesses. Each agent has a direct relationship with Vodacom.

Safaricom has succeeded in using large and medium sized airtime retailers as aggregators or super agents. A single agency agreement is signed with this 'aggregator' who brings his multiple outlets to each act as M-PESA agents. This approach allowed Safaricom to very quickly increase the number of M-PESA agents by signing agreements with a limited number of retailers. The use of aggregators also reduced the complexity of management for Safaricom as they did not have to deal directly with thousands of outlets spread out across the country. The super dealers also improve cash management, balancing any cash float issue between their different outlets caused by regional imbalances between deposits and withdrawals.

During the launch of an m-banking service the MNO quickly need agents in order for the service to be of value for the users. At the same time the agents want to see that there is a strong demand for the service before they make any investments in it. Thus it is important that initial users and agents believes in the future success of the service. Becoming an agent requires a substantial investment, and when a company with a market share like Safaricom offers the opportunity to become an agent in their network they are in a good position to be trusted and for the proposal to be taken seriously. The shop owner knows that the m-banking service will be financially backed and running for a long period of time. So, a trustworthy and committed provider is the answer to the chicken and egg dilemma when it comes to attracting customers and agents.

MARKETING

In a CGAP webinar (Rosenberg 2008) Nick Hughes, Head of Mobile Payment Solutions at Vodafone, pointed out the importance of keeping the value proposition simple and understandable. The early marketing of M-PESA in Kenya

was targeted towards urban businessmen, who also embraced the service and became the early adopters. But Safaricom soon realized the huge potential in the domestic remittances and broadened its target group. They came up with the simple slogan of "Send money home" to better be associated with the existing social conditions. The new slogan and commercials quickly helped gain a lot of users and soon got a viral effect, something that Michael Joseph, CEO of Safaricom, points out as an important factor for success (Osmotherly 2009). Since the service facilitates person-to-person money transfers and it is cheaper to send money to a registered customer, the sender has the motivation to introduce the recipient to the technology. This has played a part in spreading the service and helped include user groups who traditionally seldom embraces new technology. A common recipient of the money transfers in the case of M-PESA is a middle-aged woman living in a rural area.

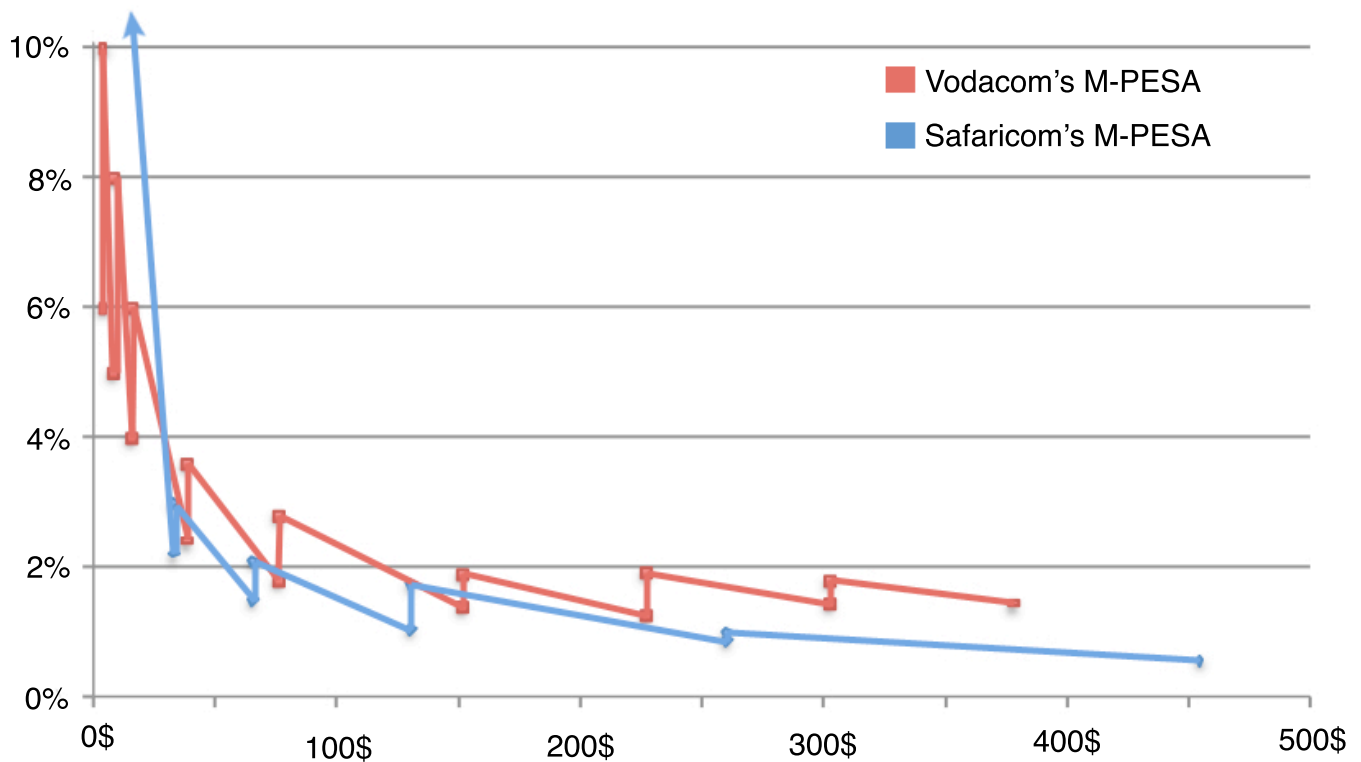
When M-PESA was launched in Tanzania the "Send money home" slogan and billboard commercials were taken from the campaign in Kenya but the viral effect and spread of the service did not take off. The uptake has been slow and it is only now, a year after the launch, that we are beginning to see signs that the uptake is taking off. Jacques Voogt, head of M-PESA at Vodacom, stated in May 2009 that they had

not yet started the educational phase of the marketing of M-PESA in Tanzania. This is something we also noticed among the users in our field study. From our interviews in Tanzania we can confirm that M-PESA has achieved brand recognition, but the majority of the people are not aware of what the service is about, or what they as customers need to provide in order to join the service. It is crucial to explain the service and not just to expose the brand. Only 8% (Finscope 2006) of Tanzania's population have a bank account so to become comfortable to use the mobile phone for financial transactions is a lot to expect of people without communicating the features and advantages of utilizing that functionality. The media channel to reach people in rural Tanzania is mainly the radio, and the commercial message would probably had more success if it had included more informative elements at an earlier stage of the marketing. However, starting from the second half of 2009 the service will be marketed by presenting different use cases, with emphasis on how it works and what is needed in order to start use it.

FEE STRUCTURE

The fee structure was redesigned in Vodacom's version of M-PESA. In Kenya there is a fixed fee for transferring any amount of money (up to the top limit) to another registered user. This was reported to be abused by some agents who divided larger amounts into smaller pieces. By doing so they increased their profit by claiming several commission

Figure 1
Shows the percentage of the amount sent in USD that Safaricom and Vodacom charges in fees for sending and receiving.



fees from Safaricom. In Tanzania the transfer fee instead scales with the amount transferred.

As shown in figure 1 there is no significant difference in pricing between Safaricom's and Vodacom's M-PESA. It is much more expensive to send the minimum amount in Kenya but the two approaches each other quickly and soon Safaricom instead becomes the cheaper service. For the most popular amount to send, which is just over 20 USD in both countries, Safaricom charges 3.6% and Vodacom 4.5% of the amount sent. The prices have been calculated to include the deposit fee (free), the transfer fee and the fee to withdraw the money.

THE TWO ECONOMIES

When comparing the success of a financial service in the two countries it is important to remember the overall differences between them. Kenya has a stronger economy with a GDP of 890\$ per capita while Tanzania has little over half of that, 520\$. One consequence of this is that Kenya has a more developed banking system. In 2006, 17% of the people in Kenya were formally banked compared to 8% in Tanzania (Finscope 2006) (updated figures on this will be published in a Finscope report in October 2009).

That is double the share of banked individuals and the number of bank branches per 100,000 inhabitants is 1.38 in Kenya compared to 0.57 in Tanzania (Beck, Demirguc-Kunta et al. 2007).

The opportunity for branchless mobile banking can seem to become bigger the more absent traditional banking is in the country, but this is not necessarily true. If banking is too rare, then overall financial literacy will be lower which in turn will become a substantial issue for the m-banking service provider to solve. According to a Finscope survey 2006, the major barriers to accessing financial services in Tanzania are "lack of education in general and financial literacy in particular. More than half the total population has never heard of a debit card, an ATM machine or even a current account" (Finscope 2006). Branchless banking agents are also dependent upon an existing network of traditional banking branches for managing the cash circulated by their business.

Figure 2
Maps of the population density in Kenya and Tanzania.



	Tanzania	Kenya
Banked population	8%	17%
Urban population	30%	41%
Mobile penetration	30%	34%
Internet subscriptions	400.000	3 000,000

GEOGRAPHY AND POLITICS

The two countries have about an equally large population of around 40 million people, but Tanzania is twice the size of Kenya, as big as France and Germany put together. The population is more evenly distributed in Tanzania than in Kenya so the general density of people is far lower. This is illustrated in two maps below. There has been a stronger urbanization in Kenya and 41% of Kenya's population live in urban areas compared to 30% in Tanzania. The area which the agent network in Tanzania has to cover in order for the agents to be within a reasonable distance to the users is therefore a much larger one compared to the one in Kenya.

Urbanization is a strong trend across Africa but many that move keep strong ties to their rural village. It is often young men who, more or less temporarily, moves to find employment in the cities. In most cases they move alone with plans to eventually move back to their families. This is often referred to as the *dual system* and has been mentioned as one of the enabling factors for the success of M-PESA in Kenya (Morawczynski 2008), where the remittances is one way of maintaining the ties to their family.

During colonialism there were laws discouraging the population in Kenya and Tanzania to move permanently into urban areas. After gaining independence, Kenya has primarily promoted growth of the urban economy. All formal employments are located in urban centers and also most of the commerce. This creates job opportunities in the cities and makes wages there much higher compared to rural areas.

As Kenya, Tanzania abolished the law that prevented the population to move into urban areas after the country's independence in 1961. At the same time the government established plans to decentralize the country. This included the Ujamaa villages which were small communities where small-scale farmers were told to live. In 1973 people were forced to move there which resulted in that 80% of

Tanzania's population were living in registered Ujamaa villages within a few years. This together with massive investments in social services in the 1970s and 1980s subdued the urbanization in Tanzania (Jennings 2008).

The history has affected the money flows of today and we see that in Tanzania the remittance patterns are more diverse. In Kenya the urban-to-rural remittance corridor is dominating with 70% of the total domestic remittances (Oucho 1996). Urban-to-rural is a popular remittance flow also in Tanzania, but there exists many other corridors of money transfers; rural-to-urban, urban-to-urban and rural-to-rural. Paying school fees is one example of this. It is common for students to move in order to go to school in a different village or town as early as secondary school. As there are no billing or payments system for paying the fees, which can be of substantial amounts, there is a need for regular transfers to where the schools are located.

ALTERNATIVES TO M-PESA IN TANZANIA

Although M-PESA is the most popular m-banking service in Tanzania there are more popular ways of transferring money in the country. As in Kenya popular ways of sending money is by asking a relative or friend to deliver it. But in this section more organized services will be presented.

National Microfinance Bank

NMB (National Microfinance Bank) have about one million customers and 120 offices with presence in 80% of Tanzania's districts. New bank customers need a reference from a local authority or an employer to open an account. Because of high unemployment the option of employer reference is unavailable for many and it can take a long time for the local authority to handle the reference application in some cases. But for the ones that have managed to open an account it is free to send money between accounts and the minimum opening balance is quite low, about 7 USD. It is possible that price sensitive users choose this way of sending money even though it is often time consuming with queues up to a couple of hours.

Buses

There are several bus companies that offer the service of money transfers, some in more organized ways with a fixed fee where the sender gets a receipt and a number that the recipient have to use to collect the money at another bus office. In other cases the sender makes a deal with the individual bus driver on a price and notifies the recipient about the name of the driver and what time the bus will pass at the recipient's location. The arrival time can be uncertain and involve a couple of hours waiting at the bus stand. In such a vast country as Tanzania the bus companies mainly

focus on the bigger cities, thus buses become more of an alternative to urban-to-urban remittances.

Remittances in kind

The traditional way of transferring value is by doing it in kind, and this is still popular today. An FSDT survey from 2009 elaborates on this and gives example of goods sent in kind. Common goods being sent in Tanzania are sugar, powder milk, rice, spices, clothes, medicines, building materials and electronics. The reasons for remitting in kind is regional differences in prices and availability, the sender knows that the goods are used for a specific purpose, also, it involves less risk than sending money in cash. But sending value in kind of course have negative aspects as well. Among those mentioned in the FSDT survey was high transportation cost, risk of goods getting damaged or delayed and that the persons involved in the transportation could be fraudulent.

Airtime vouchers

There is one way of sending money via the mobile phone which is faster and in some cases more convenient than M-PESA, and that is by using airtime top-up vouchers. The process is simple: the sender buys an airtime voucher, scratches it in order to see the code and then texts the code in a text message to the person supposed to receive the money. It is then up to the recipient to go out and sell the code to people who wants to buy airtime, or resellers and shops that in turn will sell it to people wanting airtime. The value of the voucher is reduced when selling it the second time, most often by 10% but in some cases even up to 40%. M-PESA is much cheaper and charge between 2-5% of the value sent. Somehow this informal way of sending money through airtime vouchers has been generally accepted as a value transfer service in Tanzania.

We illustrate a typical use case with Emanuel, a customer care employee from Dar es Salaam. When Emanuel wanted his cousin to visit him in his new house in the city, he was told to text his cousin top-up vouchers in order to help finance the bus ticket. His cousin, who's living in a remote part of the country asked for 40.000 TZS (about 30 USD) worth of airtime credit. He wanted them to be divided between the two most popular operators in his area to speed up the process of selling them. The cousin estimated that it would take him ten days in order to get a reasonable exchange rate back to cash for the airtime sent. This is the most efficient way to receive money in the village today because there are no bank offices nearby, the bus companies offering money transfer services do not go by there and there is not an m-banking agent near the village yet. But

people have mobile phones and use them, so there is a market for airtime which can be translated into cash.

Given that the method includes using the mobile phone as M-PESA also does, and the fact that many people are frustrated about the uncertainties that this method involves, it is surprising to see that it still is popular. It shares some of M-PESA's characteristics, it is immediate and personal but it is easier to communicate to other people. It is a less abstract way of sending money compared to M-PESA because the money is always in airtime, which can be argued to be more tangible than e-money.

It is often the sender that chooses which way to transfer the money. Sending vouchers is convenient for the sender because of the extensive network of airtime resellers that exists throughout the country. Almost regardless of any shop's main business they will also sell airtime vouchers and on every street corner you can find people selling them as well. So there are "voucher agents" everywhere and no registration or identification is required. More importantly, the sender do not have to find a banking branch or M-PESA agent but can send the money from almost any location. However, the convenience for the sender is associated with an inconvenience for the receiver, who has to find a buyer for the vouchers. A process which can take quite some time, even weeks for larger amounts, and most often also a reduction in value.

Alternatives in Kenya

Before the entry of M-PESA the most popular ways of transferring money in Kenya were basically the same methods as in Tanzania. To transport the money in cash with the help of a relative or friend, to send money via the bus companies or to use the post office. But the way of using airtime vouchers is and has never been documented as being popular in Kenya.

Benchmarking M-PESA

Thus there are competitors that might either be cheaper, have more agents, perceived as less abstract, or more convenient to use. But the competitors also have flaws and overall M-PESA and other m-banking services becomes the best alternative to send money in terms of availability, safety and cost. The most common reason when people explain why they use M-PESA is convenience. M-PESA involves less time traveling and queuing compared to other methods. At the same time it is affordable, which is the second most popular reason given to why they choose the service. It is cheaper compared to most other services, primarily vouchers and bus companies.

It is difficult to evaluate what type of previous money transfer method that m-banking has easiest to attract users from, and so far its popularity seems to have been at the expense of almost all previous methods. Are people using airtime vouchers to send money easier or more difficult to convert to M-PESA customers, than for instance people who use bus companies for money transfers? Regardless if any of the other methods creates a user pattern that makes them more different than other, m-banking services will most likely prevail over time. This because of the additional services that will be hooked into the payments platform that m-banking services can become.

TECHNICAL PLATFORM

One of the things M-PESA in Tanzania has done differently is to use USSD instead of Sim Toolkit (STK) as the technology to deliver the service. Both are part of the GSM standard and work on almost every mobile phone on the market. Perhaps the biggest difference between the two technical solutions is that they offer different interface possibilities. With STK the user has an application just as any other on the phone which easily can be accessed from the phone's menu. The downside is that the SIM card has to be switched to a new one with the right software installed, then all the information from the old SIM card has to be transferred to the new one. With USSD the user have to dial a short number in order to activate the menu. After each input the data has to be sent to the server and the new menu screen sent back, which can be time consuming.

Even though we feel STK provides a better user experience than USSD it is unlikely it can explain even a small part of the difference in user uptake in the two countries. The users we have talked to in Tanzania have never expressed dissatisfaction with the interface or thought it was too difficult to learn.

NATIONAL ID

Financial services such as M-PESA are required to follow the Know Your Customer (KYC) and Anti Money Laundering (AML) and Counter Terrorism Financing (CTF) procedures. This includes that users have to identify themselves with a photo ID-card during registration and when withdrawing money. Tanzania does not have a national ID system. This is a potential problem for financial services in the country but so far it has not been reported as a serious obstacle for M-PESA. From the users and agents we interviewed in Tanzania very few thought this was a problem and the people who did, thought of it as not an influential one.

DISCUSSION

When launching an m-banking service the greatest challenges are the new relationships that has to be established. The MNO needs to enroll agents, the users have to become comfortable with agents handling their money as well as keeping electronic money on their mobile phones, only to name a few. What determines how fast the m-banking service can grow is how strong these relationships are prior to the launch and how quickly they can be built. An example of this was the relationships Safaricom had with their airtime distributors that they utilized to get M-PESA agents.

For an MNO planning to launch an m-banking service there are some important matters to consider. To identify and hook into the existing remittance streams. Why and where are people sending money? Use existing relationships when building the agent network, either the MNO's own relationships or regional dealers that have contact with other smaller businesses. Understand what knowledge the target group has of financial services, and how to use a language and use cases that they can relate to.

In addition to the factors we have brought up, there are many details and decisions that also have had an impact. In a presentation at the MMT Africa 2009 conference by Michael Joseph, CEO of Safaricom, he mentioned how important it is that the top management believes in the service and has a long term commitment to it. It might be difficult to prioritize a service as M-PESA that does not increase revenue in the near future but is included in a long term strategy to reduce churn, especially when you have to deliver increased revenue each quarter to please the board and shareholders. Other factors that have been brought up when discussing this issue is the different crime rates in the two countries as well as the entrepreneurial climate.

Not all things that enabled the success of M-PESA was under Safaricom's control, like culture and the overall sociopolitical structure of the country. This is not to say that there was not a lot of hard work involved from Safaricom. But when similar services are being implemented in other countries it will probably be rare to see the same fast growth as we did in Kenya. In future cases the development of m-banking are probably more likely to resemble the development of M-PESA in Tanzania or Wizzit in South Africa. There things have happened more slowly but still moving in the right direction and picking up pace over time. The future of M-PESA in Tanzania is bright, although it is clear that the development will not be as dramatic as in Kenya. Many of the issues that we have brought up in this

paper are being addressed by Vodacom and there is a growing demand for the service.

Finally, we need to remind ourselves that many different organizations are interested in this topic. To transfer money is an important service that has been improved a lot with the help of the mobile phone. But when it comes to services that help people out of poverty, loans and savings are believed to be more effective. Despite this, and the massive interest from development organizations we have not seen a service that is used or promoted for savings and very few that pay any interest on the money. MNOs are shifting towards payments and it is still unclear who will promote and facilitate savings in the context of m-banking. Right now the industry is at a stage where the unbanked is viewed as a customer base, but the unbanked still stand for a minority of the users. Even in the case of M-PESA in Kenya only 30% of the users are unbanked. So the challenge of understanding, designing and reaching out with financial services to the ones most needing them remains.

REFERENCES

- Beck, T., A. Demirguc-Kunta, et al. (2007). "Reaching out: Access to and use of banking services across countries." Journal of Financial Economics **85**(1): 234-266.
- Finscope (2006). FinScope National Survey on Access to and Demand For Financial Services in Tanzania.
- Ivatury, G. and I. Mas (2008) "The Early Experience with Branchless Banking."
- Jennings, M. (2008). Surrogates of the state: NGOs, development, and Ujamaa in Tanzania, Kumarian Press, Inc.
- Mas, I. and J. Rosenberg (2009) "The Role of Mobile Operators in Expanding Access to Finance."
- Morawczynski, O. (2008).
Surviving in the 'dual system': How M-PESA is fostering urban-to-rural remittances in a Kenyan Slum
- Morawczynski, O. and G. Miscione (2008) "Exploring Trust in M-Banking Transactions: The Case of M-PESA in Kenya."
- Osmotherly, K. (2009). MMT Explained, part 10: behind the scenes at M-PESA.
- Oucho, J. (1996). Urban migrants and rural development in Kenya. Nairobi, Nairobi University Press.
- Rasmussen, S. (2009). Delivering Successful Mobile Money Solutions to the Unbanked - Customer Acquisition. GSMA Mobile Money Summit, Barcelona.
- Rosenberg, J. (2008). Lessons from M-PESA - a conversation with Nick Hughes, Vodafone Head of International Mobile Payment Solutions, CGAP.
- Slavova, M. (2009). Mobile Money by M-Pesa: a need or a luxury? Mobile Market Design for Development.