Surviving in the 'dual system': How M-PESA is fostering urban-to-rural remittances in a Kenyan Slum

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The 'dual system' thesis has been used to describe the continuing commitment of urban migrants to the village in various African countries. According to literature, urban workers maintain strong ties with the rural area, even after spending a substantial amount of time in the city. One way in which these ties are maintained is through urban-to-rural remittances. In March of 2007, an m-banking application called M-PESA was introduced into the Kenyan market. This application allows for person-to-person (P2P) transfers of e-money via mobile phone, and facilitates urban-to-rural remittances. This study will use ethnographic data collected in a Kenyan slum to show that M-PESA is becoming a tool for the maintenance of urban-rural relations. It will further assert that because it is helping migrants to maintain such relations, it is facilitating survival in the 'dual system'.

1. INTRODUCTION

The 'dual system' thesis has been used to describe the continuing commitment of urban migrants to the village in various African countries (Gugler, 1971; 1975; 1991; 2002). According to these studies, urban workers continue to maintain strong ties with the rural area, even after spending a substantial amount of time in the city. Some even argue that these ties increase in strength as the migrant becomes more established in the urban area (Ross & Weisner, 1977). In a study conducted in Nairobi, Ross and Weisner (1977) found that these urban-rural relations are vital for the survival of the migrants. They not only ease the transition to urban life, but also provide migrants with a source of security during periods of economic and political instability. There are various ways in which the migrant maintains such relations with the rural area. This includes regular visits from the city to the village. It also includes the transfer of remittances, in both cash and kind.

For the rural household, these remittances provide a vital source of income (Evans & Ngau, 1991; Stark 1980; 1991; Agesa & Kim, 2001). Because of the substantial wage differential between urban and rural employment, and the lack of attention given to the development of the rural economy, it is estimated that 30% of households in Kenya depend on remittances for their survival (Kabbucho et al., 2003). Empirical work cites various usages for remittances by rural households. This includes the satisfaction of daily consumption needs, payment of school fees, purchase of farming equipment, and as insurance in emergencies (Chimhowu et al., 2005; Poirine, 1997; Rempel & Lobdell, 1978; Sander & Maimbo, 2005). It has been argued that remittances not only improve household welfare but can also have indirect growth effects on the economy (Maimbo & Ratha, 2005; Sander & Maimbo, 2005). They stimulate local demand and provide other members in the community with a source of credit.

Various channels are available in Kenya for the transfer of remittances between urban and rural areas. This includes commercial banks, post offices, forex bureaus, bus companies, and friends and family. Even with these numerous channels market research argues that there are 'service gaps, inefficiencies and unmet demand' in the remittance market, especially among the low-income segment of the population (Kabbucho et al., 2003). To address this unmet demand, Safaricom—Kenya's largest mobile service provider—has introduced an m-banking application called M-PESA (Vaughan, 2007). Launched in March of 2007, this application allows for the real-time transfers of e-money via the mobile phone and is being rapidly adopted for urban-to-rural remittances. The application works as follows—those who want to send money must first register for the service by visiting an M-PESA agent and providing them with photo identification such as a driver's license. After the identity of the customer is verified the agent establishes an electronic account, and links it to the mobile phone number of the customer. To activate the account, the customer deposits cash with the agent. This cash is thereafter reflected as e-money in the M-PESA account. After an e-money balance is established, a wide variety of transactions can be conducted via the mobile phone. This includes checking account balances, making deposits and withdrawals, transferring money and phone credit to other users. The transferring money option is interesting in this context because it facilitates remittances between urban and rural areas. Anyone with a mobile phone number in Kenya can receive e-money via M-PESA, and withdraw it from an agent. Safaricom (2008) has reported that the M-PESA application is being adopted rapidly in Kenya. Between March of 2007 and

May of 2008, over 2 million customers registered with the service.[1] More than 2000 retail locations signed up as agents. The company also reports high rates of person-to-person (P2P) transfers. During that same period, over 9 Billion Ksh (app. £73 million) were transferred via M-PESA.

In this analysis, the adoption and usage of the M-PESA application will be investigated in Kibera—a slum that is located on the outskirts of Nairobi. This site was chosen because it is heavily populated by migrants from various parts of rural Kenya. Data from a four-month ethnography will be used to address the following questions: *Is the M-PESA application being used for the transfer of remittances between urban and rural areas? If so then why is M-PESA being used over other money transfer services?* The main goal of this analysis is to examine whether the M-PESA application is helping migrant workers to maintain their relations in the rural via remittances, and whether it is facilitating survival in the 'dual system'. The study will proceed as follows: it will begin by delineating the urban-to-rural remittance patterns in Kenya, and examining remittance channels in more detail; it will thereafter set the context for the empirical study by providing a brief overview of Kibera; the results of the ethnographic work will follow and the aforementioned research questions will be addressed. The study will conclude by providing suggestions for future research.

2. SURVIVING IN THE IN DUAL SYSTEM: WHY URBAN MIGRANTS MAINTAIN TIES WITH THE RURAL

This article began with an examination of the 'dual system' thesis, which describes the ongoing commitment of urban migrants to their village. The studies applying this thesis argue that social and economic life cannot be analyzed as two discrete systems but rather as one common social field. This is because migrants seek to maximize relations in both areas. As commented by Ross and Weisner (1977) 'residing in a city does not mean shunning rural ties and obligations. Living in the country does not mean failing to look to city relatives for assistance and comfort'. The term 'dual system' was first used by Gugler (1971), whilst examining the involvement of urban migrants to village life in south-eastern Nigeria. He found that most urban dwellers identify with their rural home, feel like they belong there, and are constantly re-affirming their allegiance to the rural. He argued that for low-income earners this tie provides economic security. During periods of unemployment, illness or disablement, the urban migrant can look to the village for support. He further argued that this tie provided the migrant with a source of emotional security. Great comfort is derived from having firm roots and a place of origin. More recent empirical work argues that this urban-rural link continues to be strong (Oucho, 2007; Odhiambo & Manda, 2003; Owuor, 2004). For example, a study conducted by Owuor (2004) in Nakuru town shows that the deterioration of living conditions in both rural and urban areas have forced urban migrants to 'fall back' on rural areas for support. In this section, the various reasons for the maintenance of urban-rural relations will be discussed. Before this discussion ensues, however, the rural-urban migration patterns in Kenya will be examined. Such an analysis will provide an understanding of why migrants leave the village to live in the city. It will also provide insight into why they return.

[1] In 2007, the population of Kenya was reported to be over 36 million (Yin & Kent, 2008). Although the numbers of registered users was given, the data on usage was not. As such, it is unknown how often the application is being used. Furthermore, it can be assumed that some users registered with the service but do not use the application.

During colonialism, there was an influx of migrants from the rural area into larger cities such as Nairobi. The majority of these migrants did not settle in the city but stayed only for as long as they could find work. This is because the colonial government implemented policies which discouraged the permanent establishment of Kenyans in urban areas (Elkins, 2005). Labour was recruited on temporary contracts, and wages were kept low. Bachelor accommodation was provided for the workers, which meant that there was very little room for the family of the migrant. Because of the unpredictability of the labour market, the migrant workers would oscillate between the urban and rural area throughout their working life.

Such migration patterns, usually known as 'circular migration', are still common today (Owuor, 2004; Oucho, 2007). There are few opportunities for formal employment outside of the cities, as the government has emphasized the development of the urban economy over the rural (Agesa & Kim, 2001). Wages also tend to be significantly higher in the urban areas, due to union representation and collective bargaining agreements. For these reasons, many rural dwellers continue to migrate to the cities in search of work. This move is not, however, permanent. Most migrants return to the rural when they cannot find work or are ready to retire (Oucho, 1996, Owuor, 2004). According to Oucho (1996) 90.2% of migrants expect to return to their district of origin for retirement, while 76.5% expect to retire in their location (village) of origin. Because migrants plan to return to the rural it has been argued that many are not committed to permanent urban life (Ross & Weisner, 1977). For example, they purchase land in the village rather than the city. They also make frequent visits to the rural area. In his study in Western Kenya, Hoddinott (1994) found that 84.9% of those respondents who had been away for more than one year had visited their family at least once in the previous twelve months.

Several other reasons have been noted for these strong urban-rural linkages. The most commonly cited is related to the ownership of assets, such as land or cattle (Neitzert, 1994; Shipton, 1988). In many parts of Kenya, such resources are usually inherited and controlled by men. The rural home usually resides on ancestral land which is passed down from father to son. Women often do not qualify for the inheritance of land because they are expected to marry and make their home with the husband's family. This means that many male urban workers have, or will inherit, assets in the rural area. Maintaining contact with the rural is one way to help ensure their future claim to such assets (Ross & Weisner, 1997).

Familial structures can also help to explain such linkages. It is common for the wives and children to remain in the village as the men work in the city. Agesa (2004) has estimated that close to one-third of households in Kenya choose this type of living arrangement. Some argue that traditional gender roles can also explain this separation. Kenyan males are often associated with the marketplace and more likely to engage in labour-market activities (Agesa & Kim, 2004). Women, on the other hand, are associated with the domestic and usually responsible for activities relating to subsistence production on the farm, livestock care, family and household maintenance (Agesa, 2004). Such a division of labour also facilitates the migration of males into urban areas as the wife is available to reside and work on the farm.

The commitment of urbanites to their rural areas can also be tied to issues of identification and belonging (Geschiere & Gugler, 1998; Stark & Lucas, 1988). Geschiere & Gugler (1998) argue that the process of democratization and the reintroduction of multi-party politics brought a new emphasis on ‘authochthony’ and ‘belonging’. This has evoked an obsession with roots and origins and made the village a vital source of power at the national level. The authors further assert that national regimes do very little to discourage such ethnic polarization because it is a crucial base of power.

The ideas on what is considered ‘home’ can also explain the ties of the urban dwellers to the village. For example, the Luo concept of home (*dala)* incorporates several elements (Cohen & Atieno Odhiambo, 1989). This includes the territory (*piny*), culture (*tibewa*), reproductive soil (*lowo*), the luo people (*jowa*), and agnatic kinship (*yawa*). For a physical space to be considered the *dala,* it must include all of these elements. It must also under-go a ritual involving the elders and other members of the community. Thus, a Luo migrant can spend their entire life in the city and still not consider it their home.

Finally, the urban-rural linkages can also be explained by the social networks of ‘home people’ in the city (Gugler, 2002). The migrants place in the urban is often contingent upon the connections that they have in the rural. When migrants first arrive in the city, they often stay and find employment through relatives or friends, which means that city life is heavily influenced by social networks of the village. In a study conducted in Nairobi, Ross (1975) found that ethnicity is the strongest predictor of friendship patterns as only 6% of survey respondents claimed that their closest friend is from a different ethnic group. Furthermore Ross & Weisner (1977) argue that church attendance is based on affiliations with the rural. Many urbanites will choose a congregation where there is a large community of their home people rather than attending a church in their neighbourhood. Because of these strong connections in the urban, migrants maintain an ongoing commitment to village life. They are also provided with a constant reminder of their obligation to those who remain in the rural.

This section has noted the various reasons for urban migrants to maintain relations with those in the rural. As was mentioned above, the transfers of remittances between the urban and the rural is one of the ways in which these relations can be maintained. In the next section, the urban-to-rural remittance patterns will be revealed. The channels used for the transfer of these remittances will also be discussed.

3. THE NATURE OF REMITTANCES IN KENYA

Empirical studies monitoring urban-to-rural remittance flows all note a similar phenomenon—frequent transfers of cash and kind between urban centres and rural areas (Geschiere & Gugler, 1998; Owuor, 2004). It has been argued that these urban-to-rural remittances are much more frequent than international remittances. A recent survey conducted by Finaccess (2007), for example, found that in the past 12 months, 33.4% of respondents had sent or received money from persons within Kenya while 3.5% had sent or received money from persons outside of the country. Because a large proportion of urban-to-rural remittances are being sent through informal channels, there are significant inaccuracies and gaps in the official records. However, there have been some empirical studies that have traced remittance patterns in various parts of Kenya. These studies will be reviewed in this section.

In a study conducted in Western Kenya, Hoddinott (1994) found that 86.8% of respondents had remitted money or goods back to the village at least once in the previous twelve months. In a later study Owuor (2004) found that 35% of respondents in Nakuru town would send money back every month, while 41% would send money back every two to four months. It has also been argued that

Kenyans remit a high percentage of their incomes to the rural area. Rempel et al. (1970) conducted a study of recently migrated males in eight urban centres and found that 13% of their income is remitted back to the rural area. In a study conducted in Nairobi, Johnson and Whitelaw (1974) found that the average amount remitted is 21%.

According to the literature, remittances are made in both cash and kind. It is common for migrants to send urban-type items, such as furniture, wall clocks, and radios back to the rural. Empirical research suggests that clothing is most frequently remitted (Oucho, 1996). Some migrants also send building supplies so that improvements can be made on the land. Such remittance flows are multi-directional. Money and other goods are not just flowing from the city to the village, but also from the village to the city. Oucho (1996) traced the flow of remittances between Nyanza province and urban areas. The author found that 73% of all remittances were urban-to-rural while 26.7% were rural-to-urban. When visiting it is very common for migrants to accumulate goods from the village and bring them back to the city. These goods are either used for consumption or re-sale when the migrant returns to the city. Flows of money from the rural to the urban have also been documented. This money is used by migrants when they are settling into the city and looking for employment. It is also used by college and university students to pay for school fees and related costs.

In Kenya, a variety of channels are used to transfer money between urban centres and rural areas. The ones most popular amongst low-income Kenyans are the informal channels. For example, it is very common for Kenyans to send money to the rural via friends and family. According to Fincccess (2007), 58% used this channel to transfer money. This method is popular because it is the cheapest. There is no set fee and the cost depends on the agreement made those involved in the transfer. However, half of the respondents in the survey also claimed that this method is the riskiest. They complained that money and goods often failed to reach the final destination. They further asserted that, when possible, they preferred to make the transfer themselves. The same study found that bus and matatu companies are also frequently used. These companies are not, however, licensed to transfer money. As such, it is common for senders to not declare that they are sending money and enclose it in envelopes or parcels. Although there is some risk of loss and theft, this method of money transfer is popular among low-income constituents because it is reported as reliable. These companies also have extensive reach into the rural areas. Finally, the post office is also frequently used for money transfers. This channel also has an extensive reach into rural areas and is inexpensive. However, many survey respondents complained of unreliable service and delayed transfers. They further asserted that it was difficult to access larger sums of money, especially in the rural areas.

There are thus a variety of channels available for the movement of money between the city and the village. However, as will be discussed in the next section, the M-PESA application is providing an alternative to these various channels. It is also radically changing the way that migrants in Kibera remit money back to the rural.

4. INTRODUCING KIBERA

Kibera is one of the most impoverished areas in Kenya. It is located 7kms southwest of Nairobi and it is estimated that one million people, or 60% of the population in Nairobi, call Kibera their home (Ilako & Kimura, 2004). The slum is mainly populated by migrants from various parts of Kenya. These migrants come from a variety of ethnic communities, although the Luo and Luhya are reported to be the largest. Most of these migrants are tenants and thus do not own land in Kibera (Ishihara, 2003). For this reason, it is common for residents to frequently move in and out of, as well as within, the slum.

The unemployment rates in Kibera are some of the highest in the country. Only 17% of the adult population is reported to be permanently employed (Ilako & Kimura, 2004). The rest are casual labourers or employed in the informal sector. The health indicators in the slum are also extremely poor. It is estimated that 20% of the community is infected with the HIV virus (Ilako & Kimura, 2004). This is almost four times the national average.

Although Kibera is situated on property that is government owned, the social amenities are extremely poor. There are no all-weather roads in the slum, and traffic is brought to a stand-still during rainy periods. The majority of dwellers do not have electricity. Power supplies only exist along the main road and railway track. During the evenings the slum becomes engulfed in darkness and, because of the security risks, few residents leave their homes. Telecommunication facilities are also scarce. There are a few 'simu ya jamii' (community phone) facilities in Kibera. This allows residents to make, but not receive calls. Many of the residents in Kibera also have mobile phones.[2] Because of the lack of electricity, these residents pay a small sum (10 Ksh) to have these phones charged in one of the shops along the main road.

There are no formal financial institutions within Kibera. The residents must travel into town to access the aforementioned money transfer services. This under-representation of these organizations could be explained by the lack of security within the slums. There is very little police presence in Kibera. Residents claim that the police only visit the slum to collect bribes. Although there were no financial institutions, there were five M-PESA agents at the time the study was conducted in Kibera. According to reports from Safaricom, the number of agents and the customer base is expected to increase rapidly in this context.

This location was chosen because, as mentioned above, it is populated mainly by migrant workers. These workers come to find work in Nairobi because there is little available in the rural area. This means that they are likely to have relations with the rural and a 'home' to which they return. They are also likely to transfer money back to their home. Because of the lack of financial institutions in this context, it would be interesting to examine if and how they use M-PESA to make such transfers.

5. DATA GATHERING TECHNIQUES

An ethnographic study was conducted in Kibera from September -December 2007. During this period, a shop offering M-PESA services was visited several times per week. The shop is situated along Kibera Drive, the main passageway to town. It has been opened since 2006 and sells a variety of Safaricom products including scratch cards, SIM cards and mobile phones. The shop started offering M-PESA services in June of 2007. Time was also spent outside of the shop. The researcher visited the homes of the residents, markets, shops, health clinics, and schools. This provided the researcher with an in-depth understanding of the context.

[2] Please note that the researcher is still gathering data on how many people have a mobile phone in Kibera.

Ethnographic methods—such as participant observation, semi-structured, and unstructured interviews—were used to collect the data. The study included three classes of individuals—users, non-users, and agents. It must be noted, however, that the sample of the users was predominantly male. This is because at least three-quarters of the customers were men. For the purpose of diversification, female customers were interviewed when possible.

Two research assistants were hired to help with the research. One of the assistants had lived in the slum since childhood and thus acted as a gatekeeper. He knew many of the people that would come into the shop. This facilitated the interview process with the M-PESA users. The interviews were conducted in English and Kiswahili. The researcher is proficient in Kiswahili but would receive help from the research assistants when needed.

Almost all of the non-users in the sample were friends, neighbours, or family members of the research assistant. The majority of them were Luhya, the ethnic group to which the research assistant belonged. The sample of interviewees in the shops, however, was mixed. Many of the respondents were Luhya, but a large segment also came from other ethnic groups such as the Kikuyu and Luo.

The study was put on hold in late December of 2007 because of the violence that was instigated by the disputed presidential elections. Businesses and homes were burnt and many residents fled Kibera. Because of this unfortunate situation, the researcher did not feel that it was safe to return to the slum.

6. THE RESULTS

As mentioned in the introduction, this study focuses on two research questions. This section will begin by addressing the first— *is the M-PESA application being used for the transfer of remittances between urban and rural areas?* The answer to this question is yes. The majority of the respondents claimed that they were using M-PESA to 'send money back to the rural'. In fact, many did not know that the application could be used for any other purpose. When asked where the money was being sent, the majority of the respondents claimed that they were sending the money to villages or towns in Western Kenya. Several locations were frequently mentioned. This includes the Kakamega district in the Western province, which is mainly inhabited by the Luhya. It also includes the Kisii and Kisumu districts in the Nyanza province, which are mainly inhabited by the Luo. As mentioned previously, a large segment of those living in Kibera are Luo and Luhya migrants from Western Kenya. It thus makes sense that money is being remitted to this part of the country.

When asked to whom the money was being sent, the majority of respondents asserted that they were sending money to family members. Men often claimed that the recipient of the transfer was their wife, or wives in the rural area. Many also claimed to be sending money to their mother. The majority of women, on the other hand, asserted that the recipient of the money was their Mother. None of the women interviewed told us that they were sending money to their husband. The respondents were also asked why they were sending money back to the rural area. The majority of them claimed that they wanted to 'maintain' their families. Many said that they wanted to make sure that their family members had enough money to purchase food and other necessities. Others claimed that the money would be used to make 'improvements' on the farm.

In regards to frequency, the majority of those interviewed said that they would send money back 'regularly'. When asked what 'regularly' meant, different answers were given. Most respondents asserted that money was sent at least once per month. Others claimed that they would send money every three to four months. Some users also said that they would only send money back to the rural when they were requested to do so by their relatives. They explained that this would happen when the relatives were experiencing financial difficulties and could not 'cope' without assistance. M-PESA users were also asked if they expected the frequency with which they sent the remittances to increase or decrease in the future. Almost all the respondents claimed that this depended on employment. They explained that they would continue to remit back to the rural for as long as they were able to do so.

Some of the respondents also said that they would sometimes receive money from the rural. These were usually university students who were being supported by a group of relatives. Most of these students said that they were not working and thus depended on these remittances for survival. They claimed that they would 'payback' the money as soon as they started working. This confirms earlier research that remittances are multi-directional.

Not all respondents were sending money back to 'maintain' their families. Some claimed to have commercial and political interests in the rural. One man said that he owned a construction company with his sister in a small village close to Kisii. He came to Nairobi occasionally to make 'extra money'. Every Sunday he would send this extra money back to his sister who would then invest it in the business. Another man asserted that he regularly used M-PESA for 'political reasons'. He said that he was the chief campaigner for his political party in his rural district and would often transfer large sums of money from Nairobi to other members of the party. When the money was received, it was used to fund their political campaigns.

There were also other usages of M-PESA that should be noted. Many respondents claimed that they were using the application to store money, even if they already had a bank account. They said that they were too busy to travel into town to access their account. As mentioned above, there are no banks in Kibera. Others said that the banks 'could not be trusted' with their money because they were involved in 'tribal politics'. They complained that the larger banks were funding the electoral campaign of the incumbent President, Mwai Kibaki, and said that if this continued, the 'common man's money' would be lost. They said that they preferred to put their money into several accounts to minimize the risk. The respondents also used M-PESA to top-up their mobile phones, especially during the evenings. Many of the respondents said that they did not like to leave their home after dark. Others asserted that it was difficult to purchase mobile phone credit because the shops were closed. Finally, many of the younger respondents said that they used M-PESA to transfer small amounts of money to friends in Nairobi. They said that it was their 'duty' to send 'a few hundred bob[3]' to a friend in need. Although these various other usages were noted, it must be made clear that the majority of the customers were using M-PESA to send money 'to the rural'.

Now that it has been established that M-PESA is being used for the transfer of remittances between the urban and the rural, the second question can be addressed—*why is M-PESA being used over other money transfer services?* Several of the respondents said that they started to use M-PESA because they were displeased with the other remittance channels. Sending money via friends and

[3] 'Bob' is slang for Kenyan shilling.

family was most often complained about. Many respondents asserted it was common for some or all of their money to go missing when this method was used. Those entrusted with the transfer would claim that the money was stolen by 'highway robbers', or that they had incurred 'unexpected expenses' along the way. The respondents said that with M-PESA, they could send the money directly to the recipient in the rural. They did not need to rely on a 'corrupt' relative or friend for its delivery.

Some of the respondents claimed that they preferred M-PESA over the bus and courier companies because the transfer time was much shorter. They no longer needed to wait for the money to be physically transported. They also did not have to go into town, where most of the bus and courier services were located, to access the service. Many also complained about sending money via the post office. They said that on several occasions the recipients in the rural could not access the money. This was especially the case when a larger amount was transferred.

Many of those interviewed also said that there was an M-PESA agent in or near their village. This meant that the service could be easily accessed by the recipients. One man explained that he had to convince his Mother to sign up for M-PESA because there was no other way for the money to be sent. He said that the bus service in the nearest town was not regular. The post office had also been closed. Although his Mother did have 'difficulty' with M-PESA in the beginning, the man explained that she had now become accustomed to using the service.

It must be made clear, however, that not everyone preferred the M-PESA service for the transfer of remittances. One non-user interviewed said that M-PESA was 'no good' because it did not facilitate transfers in kind. She explained that many of her relatives were in debt and could not receive cash transfers because they would be 'hassled' by debtors for repayment. For this reason, she would send these relatives 'gifts in kind' such as clothing and use a courier service for the transfer. Others complained that they could not use M-PESA because their rural relatives did not have mobile phones, and thus could not access their money in the rural. Finally, many users complained that M-PESA was 'no good' because it took too long for the transaction to be completed. Because M-PESA utilizes the same data channel as text messages, it often becomes congested at peak texting times. The result is that the processing time for the transactions is long. Some customers even complained that they had to wait for one hour or more for their confirmation SMS to come through. Others claimed that they never received the confirmation SMS and needed to visit the agent to see whether the transaction had been processed.

Although some respondents were displeased with the service, the majority claimed that they preferred it over other channels. The argument can thus be made that the M-PESA application is being used by many urban migrants for the transfer of remittances. It can further be argued that the application is displacing many of the other remittance channels.

7. DISCUSSION AND SUGGESTIONS FOR FUTURE RESEARCH

Several conclusions can be drawn from this analysis. The M-PESA application is being widely adopted by low-income migrants for the transfer of remittances between urban and rural areas, and becoming a substitute for many of the other money transfer services. Because of these results, it can be argued that there is a gap in the remittance market in Kenya, and that the M-PESA application is beginning to fill this gap. But why is this application becoming so pervasive? To answer this question, literature on mobile phones in developing countries will be examined. Numerous in-depth studies of this technology have made an interesting argument—that mobile phones are pervasive because they fit into the already established needs and interests of low-income constituents (Donner, 2005; 2006; Horst & Miller, 2006). In other words, mobile phones are helping this segment to do what they were doing before the technology was introduced. A similar argument can be made for the M-PESA application. It is being widely adopted in Kibera because it is helping the migrants to transfer money between the urban and the rural. As was made clear at the beginning of this study, migrants were making such transfers long *before* the application was introduced. M-PESA is just making it easier for them to do so. They no longer need to travel outside of the slum to access a money transfer service, and they do not have to rely on 'corrupt relatives' for the delivery of the money.

Furthermore, it was argued that migrants transfer money to maintain relations with the rural. This is vital as it provides the migrant with economic and emotional security while they reside in the urban. It further provides the migrant with a 'home' to which they can one day return. This argument can be taken one step further. If remittances are vital for the maintenance of urban-rural relations, and M-PESA is being used for the transfer of remittances, then it can be argued that the application is becoming a tool for the maintenance of such relations. With each e-money transfer, the migrant is sending an important message—that they have not forgotten about their obligation to the village whilst residing in the city.

Such conclusions have prompted research questions that will be considered in future research. The first is related to the nature of urban-rural relations. If the argument is accepted that M-PESA has become a tool for the maintenance of such relations, then it would be interesting to examine the following—*is the M-PESA application changing the nature of urban-rural relations?* This question was promoted by an interview with a man who frequently sent money back to the rural via M-PESA. He said that before he used the application for transfers he would deliver the money himself because he did not trust the other remittance channels. He would visit the village several times per year to make this delivery. During these visits, he would also spend time with his family. The respondent commented that he no longer needed to make such frequent visits because he could now use M-PESA to send money directly to his Mother's phone. This led the researcher to question if the nature of relations between the respondent and his relatives in the rural area would change because he was no longer making frequent visits. It also led the researcher to wonder how else this application is affecting relations between urban migrants and rural dwellers.

It would also be interesting to investigate whether remittance patterns are changing because of the M-PESA application. It can be argued that such patterns are somewhat contingent upon the channel that is used for money transfers. The choice of channel could determine not only how much is sent, but also how often the transfer is made. For example, it was mentioned above that one disadvantage of using services such as bus companies is that they are located in town, which means that the resident of Kibera has to leave the slum to access these services. This could decrease the frequency with which the transaction is made. The cost of the transaction could also affect the frequency of transactions. M-PESA is one of the cheapest channels available. It costs 30 Ksh to transfer up to 35,000 Ksh to another M-PESA user. Because of this low cost, it could be argued that frequencies of transactions may rise. This also brings up the question of value. If frequency of remittances rises will the value remitted remain the same? If not then how will this change?

It can further be investigated whether the availability of the mobile phone has affected urban-to-rural remittance patterns. Before the mobile phone was pervasive in Kibera, it was very difficult for the migrant to be reached. The slum was poorly supplied with telecommunication facilities and very few residents had access to a telephone (Ishihara, 2003). Communication depended upon the delivery of messages via friends and family and the post. This made it difficult for the rural relative to make contact and request funds. Such requests can now be made much more easily because most of the slum dwellers interviewed had a mobile phone, or access to this technology. Because of this, it can also be argued that the migrant has more autonomy in deciding when to remit, and how much to send.

To conclude, a brief word will be said about the contribution of this study to the emerging discourse on m-banking in developing countries (Donner, 2007; Ivatury & Lyman, 2007; Ivatury, & Pickens, 2006; Morawczynski & Miscione, 2007; Porteous, 2007). This study has shown that this technology is being widely adopted for the transfer of remittances but has said very little about the impact of such adoption and usage. Is this application fostering 'development' in the Kibera slum? If so, then how? The researcher believes that it is too early for such questions to be adequately answered. All that can be said at this point is that M-PESA is making life a bit easier for many in Kibera. By helping them maintain the complex set of relations in the rural, it is facilitating survival in the 'dual system'. Thus, at this early stage, it can be argued that the technology is becoming pervasive because it is fitting into old remittance habits. What type of new improvements will be engendered by the application is something worth investigating in future research.

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