



## **Solving the remittance dilemma**

Sunduzwayo Madise  
Faculty of Law, University of Malaŵi  
P.O. Box 280, Zomba, Malaŵi

**Abstract:** *Remitting money in sub-Saharan Africa has always been a problem because of infrastructural problems affecting the region. Malaŵi, being a land-locked least developed country has been greatly affected by this. The country is agro-based with a majority of the population living in villages in the rural areas. Traditional means of remitting money have proved to be either expensive or unreliable. With the advent of the mobile phone, mobile network operators have devised a solution to the age-old problem of remitting finances to rural areas. The paper looks at how the mobile network operators in Malaŵi have addressed the remittance dilemma by taking advantage of the ubiquitous nature of the mobile phone.*

**Keywords:** *financial inclusion; Malaŵi; mobile money; payment system; regulation.*

### **I. Introduction**

Malaŵi, one of Sub-Sahara's least developed economy, has a financial sector which is small and dominated by banking. [1] Following assessment projects by the World Bank and International Monetary Fund, there have been a lot of statutory amendments and enactment of new law.[2] Part of the institutional changes has also seen the setting up of a commercial court. However, the law does not still provide for regulation of mobile money. A National Payment System Bill which has been waiting for enacting since 2002 is supposed to provide the statutory framework for regulating money transfers including mobile money. [3]

Malaŵi's capital markets are not well developed and the only stock exchange is highly illiquid.[4] Other players in the financial sector include insurance firms and pension funds. The country's central bank, the Reserve Bank of Malaŵi, is the single regulator of the financial sector.

This paper discusses the revolutionary solution that mobile network operators (MNOs) in Malaŵi have found to the remittance dilemma that has beleaguered the land locked country.

### **II. Definition of mobile money**

Jenkins defines mobile money as 'money that can be accessed on and used via [a] mobile phone'. [5] However, she cautions that mobile money is real money and not 'pseudo money'. [6] Porteous defines mobile payments as 'transactions undertaken using mobile devices such as a mobile phone'. [7] Mobile payments are a subset of a broader set comprising electronic payments (e-payments) and electronic banking (e-banking).

The growth of mobile payments has benefited from the risk associated with cash transactions. Hughes and Lonie have referred to mobile money services as amounting to 'turning cell phones into 24 hour tellers'. [8] Maurer states that although cash has been said to be a 'dying art', it still provides a sense of anonymity as there is no nexus between the currency linking it to its chain of owners. [9] As a result, cash can easily be used to cloak the proceeds of crime and in fraudulent conduct. [10] Maurer, therefore, argues that it is highly unlikely that cash will be entirely displaced by mobile money soon. [11]

While advocating for mobile money, Mas and Radcliffe state that 'cash is a barrier to financial inclusion', where it is the only form of exchange. [12] On the other hand, Maurer, citing the situation that occurred in Zimbabwe, says the advantage of an electronic version of cash in a situation where there is a heavily devalued currency is that one does not need to carry 'wheel barrows full of banknotes', but simply transact via the mobile payment system. [13] Indeed, cash may also not be easy to store for those without bank accounts. The danger with cash is that the value is in the money itself (metaphysical) such that its destruction by elements or otherwise also destroys its value. [14] Alternative forms of payment may also be required for large value transactions or in situations where face-to-face contact is inconvenient, unnecessary or impossible. [15] Jenkins argues that mobile money 'reduces the cost and risk inherent in dealing with cash' and that a range of transactions and services which can be accessed on by the mobile phone are limitless, thereby resulting in significant implications for economic activity across the world. [16]

While mobile money may seem all savvy and technical, the statement made by Brian Richardson that ‘imagine the economic impact of bringing the [millions of Rand] in cash currently “under the mattress” in South Africa into the formal system where it could be used for investment’ [17] does add color to the picture. Paraphrased in the Malawian context, imagine the impact of raking into the formal economy all those millions of Kwachas that Malawians have kept in their ‘safe deposit boxes’ buried deep in the ground!

Maurer has argued that mobile money ‘represents a collision of two ubiquitous technologies, each with similar but internally contradictory set of symbolic associations and social practices’. [18] He also opines that both ‘mobile’ and ‘money’ represents modernity; the former an ‘index of technological savvy’, and the flashing of money denotes a symbol of importance.<sup>19</sup>

#### **A. How the mobile money system operates**

Maurer has described the mobile money system in this manner:

[An agent] starts by depositing cash via a mobile network operator (MNO) into a pooled account at a bank that is partnered with the mobile network operator. The MNO next creates for the [agent] an e-money account equivalent to his share of the pooled account on deposit with the bank, which he can access via his mobile phone. He now has a share of electronic credits with the MNO. When a customer wants to send money to another person, the customer can come to the [agent] and provide cash in the amount to be transferred to another person, plus a commission. The [agent] receives the cash and transfers to the customer’s mobile phone some of his own e-money on account with the MNO. The MNO records the transfer of e-money to the [agent’s] customer. The [agent] can then deposit the cash in his bank account, which will top up his supply of MNO-issued e-money. This maintains a one-to-one correspondence between the money on deposit in the bank and the e-money in the system. [20]

To emphasize the need to match the virtual money and the physical money, Hughes and Lonie state that the ‘e-money must exactly match the real money or we could find ourselves in the unfortunate situation of creating currency’. [21] In fact, were it not to match, it would create runaway inflation as there would be virtual money which cannot be backed up by real money. [22] The system works under what is termed a person to person platform, or P2P, essentially enabling anyone with a mobile phone to send money to another person with such a phone, [23] but subject to any interoperability constraints.

### **III. The nature of the mobile money and mobile money payment system**

The mobile or cell phone was first introduced in Malaŵi in 1995. At that time, the main means of remitting money was through the postal services network (formal) and friends and relatives (informal). There have been infrastructural and development changes since 1995, but it is argued that so far, at least, until what the author terms the *revolutionary solution*, there was no answer to the *remittance dilemma*.

#### **A. The remittance dilemma**

The problems of transferring money to people, especially in the rural areas were and are rooted in the country’s infrastructural and institutional bottlenecks. Malaŵi is a land-locked least developing country.

##### *1) Road network*

A survey done in 2009 established that although the country has a good national road network, it suffers from a bad ‘feeder roads connecting villages to the main road network’ leading to high transpiration costs. [24]. This means all forms of remittances relying on the road network are not only expensive but also unreliable. Because of bad or non-existent feeder roads, access to rural areas may just be impossible. Therefore it not easy to remit money to remote areas because they are inaccessible and even formal means of remittance are expensive because the costs of reaching those remote areas is high.

##### *2) Inaccessibility of banking services*

Bank charges in Malaŵi are generally high across all platforms. [25] Apart from bank charges, it is expensive to operate a bank account in Malaŵi because of the following:

- a) Most banks are concentrated in the main cities and towns and usually have agencies in the smaller towns. This means that people in the rural areas have to travel long distances to access banking services.
- b) Most banks require a minimum credit balance to open and operate a savings account (and charge a ledger fee for current accounts). Banks also impose limits per day and per month, not only for amounts of money withdraw but also for the number of transactions.
- c) All banks have onerous customer due diligence (CDD) requirements. Malaŵi does not have a national identity system and it is difficult for people in rural arrears or those in the informal sector to obtain identification papers acceptable by the banks.

So although transferring money may be free when using the same bank, lack of holding an account may be a barrier. The banking sector is therefore effectively one serving the middle and upper class echelons of society. Only 19% of the population is banked, [26] a figure mirroring the urban population ratio of 20% in 2010. [27]

Another barrier are the high inter-bank transfer fees. While other countries have adopted cheaper inter-connective systems, it is still very costly to transfer money across banks in Malaŵi. It is easier (and apparently cheaper) to withdraw the money and then deposit it, although this may prove time-consuming and frustrating.

3) *Expensive remittance services*

There are several remittance services operating in Malaŵi, apart from those exclusively offered by the postal services, and these include MoneyGram and Western Union. MoneyGram charges a fee of K4,200 for any amount up to K35,000, K5,250 from then on to K70,000 and K7,000 from K70,001 to K140,000 and so on. [28] These charges are not only high but deter remittance of small amounts. (\$1 = K482.56) [29].

4) *Unreliable but relatively expensive postal services*

One could in the old days, risk putting money in an envelope and posting it. Posting money was prohibited but this did not stop the risk-takers. Nowadays, the risk of an envelope containing money going missing is so great it would be foolhardy to send money this way. The postal service has, always operated remittance services. They now have a service called Fast Cash, and still operate money or postal orders. [30] However (apart from the fees) there are post offices that do not have a sufficiently large enough cash float to enable them to pay out. [31] So if one sent money to a relative via a rural post office, chances are that the post office in question may not have the money to pay out the full amount.

5) *Unreliable friends and relatives*

It is common for people to send money to relatives living in another village using friends or other family members going there. The risk here is that the friend or relative may not deliver the money, possibly claiming that he or she lost the money or that it was stolen. He or she might also claim that the money was lost through magic. The local word used to describe this phenomena is *chitaka*. Cases of *chitaka* seem to be on the decline though, most likely because it is almost impossible to establish the truth in these situations, but they still do occur.

**B. The 'revolutionary solution'**

Following on from the ground-breaking innovation of M-Pesa by Safaricom in Kenya, local MNOs have introduced what the author terms the *revolutionary solution*; the mobile money service, using the mobile phone as a vehicle. This is a direct result of a recent surge in mobile phone usage. The increase in phone usage has been accompanied by an increase in mobile phone based products. Two such products in Malawi are *Khusa M'manja* ('money in the hands') and *Mpamba* (money in the context of 'start-up capital'). These products, and the services they contain, allow the phone user to use his or her mobile phone as a wallet or purse: he or she can load money into the phone, send and receive money, make deposits and withdrawals, purchase goods and services, and pay bills. *Khusa M'manja* is provided by Airtel, while *Mpamba* is provided by Telekom Networks Malaŵi. *Khusa M'manja* and *Mpamba* may be said to be close relatives of *M-Pesa*, a financial service that was developed in Kenya by Safaricom. The mobile money platform is therefore seen as an effective means of ensuring financial inclusion of the unbanked, which constitute a large proportion of Africa's Sub-Saharan population. For many, therefore, the introduction of mobile money services into the national payment system is a welcome development. However, balancing between the competing interests of financial inclusion and financial integrity remains a serious challenge.

Mobile money is however, not just a money service. It also offers other financial products and accepts deposits, which has become a game changer since deposit-taking is the mainstay of banks. There is still debate whether *deposit* as understood by MNOs in their marketing messages carries the same meaning as in the banking sense. By addressing the remittance challenges, MNOs devised a unique network of solutions (see immediately below) to the remittance dilemma using the mobile money payment system;

- 1) *Localise everything*: MNOs already have agents with an established presence in most parts of the country who sell their airtime or credit, the currency of the mobile phone. By using the same agents as mobile money agents, the service will be easily accepted by the community.
- 2) *Reduce transactions costs*: The charges for sending and receiving money are very low and affordable.
- 3) *Load a new money service on an existing and familiar telecommunication services*: Mobile money services use the same telecommunication platform already built by the MNOs and the same interface that mobile phone users are already accustomed to.
- 4) *Take advantage of the ubiquitous nature of the mobile phone*: The mobile phone is now found almost anywhere and everywhere. It is trusted too. If one can trust it to send a message across hundreds and thousands of kilometres, one may be easily convinced to use the same device for other services such as sending and receiving money or buying goods and services. It is also a convenient tool.

- 5) *Develop a vibrant 'ecosystem'*: Major utility service providers have been roped in the major utility service providers so that customers are encouraged to procure via mobile money. The electricity and water utilities are some of the utility companies that are part of the mobile money ecosystem. Inclusion of retail fuel providers and pay-tv services indicates that the target is beyond merely the unbanked. [32]

One can use the mobile money service, just like one uses one's phone, for regular everyday (text-based) communication not only to send and receive money but also to procure goods and services. It invariably also means that one can use the service to receive payments for goods and services sold. And for the user of the service, it does not require one to possess a bank account or pass the other stringent checks that one may be subjected to before being able to open a bank account. It presents, therefore, the very first, but crucial step towards getting those who were financially excluded into the formal financial sector. All of a sudden, it is now much easier, safer, faster and cheaper to send money.

Mas and Radcliffe argue that this has opened up a whole new way of transacting effectively, replacing methods such as personal trips, using friends as couriers, public courier, postal systems and public transport networks. [33] Camner et al 'found a "massive" reduction in using hand delivery, bus travel, or courier companies for remittances after the launch of *M-Pesa*' in Kenya. [34]

Malaŵi has experienced a sharp rise in internet and mobile banking. In 2012, mobile banking services had registered an annual 429% growth in number of subscribers (1,299% in value), whilst internet banking registered a 20% increase (538% in value). [35] Malaŵi is a rural-based economy and the primary means of payment among individuals is through cash. [36] The unbanked represents 81% of the population but even among the banked, cash is still the premier instrument used for payment. [37] Therefore, mobile money has the potential of availing to the formal economy, cash held by the unbanked 81%.

The linkage between mobile money and payment systems can be summarized using set theory analogy. The payment systems may be deemed as the outer set. Inside the payment system set would be other sub-systems such as paper or electronic payment systems. Inside the electronic payment systems would be several payment systems such as electronic transfer of funds and mobile payment systems. Inside the mobile payment system would then be contained the specialized mobile money payment system. It can therefore be deduced that one cannot separate the mobile money payment system from the national payment system, because the former is an integral part of the latter.

Since the central bank is tasked with ensuring that there is financial stability, it will always be on the lookout for any potential risk posed to the national payment system. This is why the mobile money services have to be authorized by the central bank before they can roll out. In pursuit of this, in 2011, the central bank issued the *Mobile Money Payment System Guidelines*.

It is submitted that the 2011 guidelines issues by the central bank while providing the building blocks may soon be deemed insufficient as the service grows in quantum leaps. This is hardly surprising. The technology driving mobile telephony is changing so much and so fast that the regulator is likely to play catch-up for some time. The guidelines also illustrate a common feature amongst regulators of mobile money; a certain degree of ignorance of what the system is all about and how to regulate it. [38]

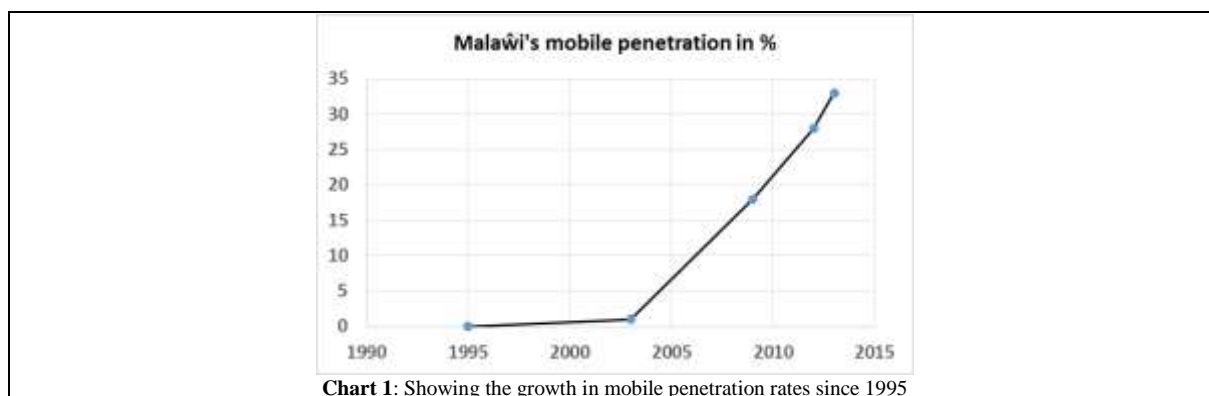
#### IV. Mobile money and financial inclusion

The roadmap towards financial inclusion is drawn in the National Strategy for Financial Inclusion, a United Nations blueprint for least developed countries.[39] The central bank targets to increase the adult bankable population from 19% to 40% by 2014. [40] The following have been singled out as challenges hindering Malaŵi's achievement of full financial inclusion: [41]

- 1) low penetration of cell phones among the unbanked population;
- 2) low penetration of mobile money agents in rural areas;
- 3) low financial literacy and awareness among the populace;
- 4) lack of interconnectivity or integrated national switch through which MNOs can integrate with commercial banks' payment systems, and;
- 5) high relative cost of financial services.

It seems, however, that in so far as low penetration of mobile phones among the unbanked is still being cited as a challenge to achieve full financial inclusion, statistics on access to such phones by the general population indicate this may require to be reviewed in view of developments in mobile phone density. For example, from a partly 1% of the populace in 2003, access to cell phones grew to 18% by 2009, representing a whopping growth of 63%. [42] Banking growth, however, has stagnated or at best been slow since the mid-1960s. It is submitted that low penetration of cell phones (among the unbanked) is less likely to be the reason hampering financial inclusion as the years progress. Mobile penetration had risen to 28% in 2012 and 33% by the end of 2013. [43].





As noted above, the central bank has set to increase the adult bankable population by a target of 40% by 2014. But how realistic is this target. The central bank was established in 1965. By 2008, 43 years later, only 19% of the population had been banked. [44] Malawi's population is 'young' with 46% comprising those aged below 15 years. [45] These are unlikely to become economically active any time soon. Most people in Malawi do not have regular incomes and unemployment is very high. Although the official unemployment rate was in 2010 estimated at 3%, the number of people actual employed is very low. [46] The official unemployment rate is based on a measure of the number of people actively looking for a job as a percentage of the labour force as opposed to the number of people actually employed. [47] Literacy levels are very low, especially amongst women [48] and 62% of the population live below the poverty line of US\$1.25 per day. [49]

These may be some factors leading financial exclusion. Most Malawians may be busy trying to make a decent living for themselves and getting on the formal financial bandwagon may be the least of their priorities or concerns. There does not seem to be anything that would all of a sudden propel a surge among the unbanked.

Without addressing the basic structural bottlenecks such as electrification, feeder road infrastructure, it would seem that there is no incentive that would make banks and other formal financial service providers invest in establishing their presence in the rural areas. Without the creation of jobs, urbanisation is unlikely to increase significantly any time soon. Mobile money does, in these circumstances, provide an avenue of roping in some of the unbanked onto the main financial platform. However, relying on it to kick-start this target may be taking a short-view of the problem. This is because, mobile money has also started offering added services such as paying for bills and purchasing car fuel, which would show that the target, at least for these added services, may be the very population that is already banked. Furthermore, since the assumption is that mobile money can lead to financial inclusion, and mobile money is based on mobile phones; then without addressing the issue of low penetration of mobile phones amongst the unbanked and low penetration of mobile money agents in rural areas, the targets of achieving financial inclusion may not be achievable.

## V. Conclusion

This paper has discussed how Airtel and TNM have come up with a radical and revolutionary business solution to the remittance dilemma, using local mobile money payment systems; *Khusa M'manja* and *Mpamba*. It also discussed Malawi's payment system and how the mobile money service operates as well as how it fits into the nation's financial inclusion agenda.

The key issue that arises in this paper is how to regulate mobile money, which is a new and hybrid service comprising a financial service riding on the rails of a telecommunication service. Maurer may have summed it well when he said 'the evolution of mobile money has led regulators and industry professionals to turn once more back to the original infrastructural question that animated mobile money in the first place: do mobile telecommunications networks represent a new set of rails for payments? What else can ride on those rails?' [50].

## References

- [1] *Index of Economic Freedom (Malawi)* available online <http://www.heritage.org/index/country/malawi> [retrieved: October, 2014].
- [2] Insurance Act 2009, Banking Act 2010, Finances Services Act 2010, Securities Act 2010, Microfinance Act 2010, Credit Reference Bureau Act 2010, Financial Cooperatives Act 2011, Pension Act 2011.
- [3] *National Payment Systems Annual Report 2012* (Reserve Bank of Malawi, 2013)
- [4] *Daily Stock News*, Malawi Stock Exchange, 17 June 2014, available <http://www.mse.co.mw/current/daily.pdf> [retrieved: June 2014].
- [5] B. Jenkins "Developing Mobile Money Ecosystems" International Finance Corporation and Harvard Kennedy School, 2008, p. 5.
- [6] [5] p. 21.
- [7] D. Porteous, "The Enabling Environment for Mobile Banking in Africa" (Report Commissioned by Department for International Development (DFID), 2006) p. 3.
- [8] N Hughes and S Lonie, "M-PESA: Mobile Money for the 'Unbanked' Turning Cellphones into 24-Hour Tellers in Kenya" 2 Innovations 63, 2007, p. 63.

- [9] B. M. Maurer, "Regulation as Retrospective Ethnography: Mobile Money and the Arts of Cash" 27 Banking and Finance Law Review 300, p. 303.
- [10] [9] p. 304.
- [11] [10].
- [12] I Mas and D Radcliffe, "Mobile Payments Go Viral: M-PESA in Kenya" 32 Capco Institute Journal of Financial Transformation 169, 2011, p. 181.
- [13] [10].
- [14] [10] p. 305.
- [15] S Satão and D. B. Humphrey, "Transforming Payment Systems : Meeting the Needs of Emerging Market Economies" World Bank, 1995, p. 19.
- [16] [5].
- [17] [5] p. 21. B Richardson is Chief Executive Officer of the South African mobile service operator WIZZIT.
- [18] [10] p. 308.
- [19] [18].
- [20] [9] p. 306.
- [21] [8] p. 69.
- [22] *Guidelines for Mobile Payment Systems*, Reserve Bank of Malawi, 2011, available online [http://www.rbm.mw/documents/payment\\_systems/Mobile%20Payments%20Systems%20Guidelines.pdf](http://www.rbm.mw/documents/payment_systems/Mobile%20Payments%20Systems%20Guidelines.pdf) [retrieved October, 2014].
- [23] [12] p. 171.
- [24] S. V. Lall, H. Wang and T. Munthali, "Explaining High Transport Costs Within Malawi - Bad Roads Or Lack Of Trucking Competition ?" World Policy Research Working Paper 5133, 2009 available <http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-5133> [retrieved November, 2014]
- [25] C. Chibwana, "The high and the hidden costs of banking in Malawi", available online <http://chibwana.com/2010/04/05/costs-of-banking-in-malawi/> [retrieved: November 2014].
- [26] *FinScope Malawi 2008*, available online [http://www.hofinet.org/upload\\_docs/FinScope\\_Malawi\\_2008.pdf](http://www.hofinet.org/upload_docs/FinScope_Malawi_2008.pdf) [retrieved November, 2014].
- [27] *Rural population in Malawi*, available online <http://www.tradingeconomics.com/malawi/rural-population-wb-data.html> [retrieved November, 2014].
- [28] *MoneyGram International Limited*, available online <https://m.moneygram.com/mgomobile/site/costEstimator.html#CostEstimatorResults> [retrieved: October, 2014].
- [29] *National Bank of Malawi* (Foreign Exchange Rates, 6 November 2014), available online [http://www.natbank.co.mw/ftped\\_documents/ratestodayNovember0620141012.pdf](http://www.natbank.co.mw/ftped_documents/ratestodayNovember0620141012.pdf) [retrieved November, 2014].
- [30] V. Kumwenda, "Malawi Posts Corporation's Fast Cash Money Transfer", available online <http://vincekumwenda.blogspot.co.uk/2012/05/malawi-posts-corporations-fast-cash.html> [retrieved October, 2014].
- [31] [30].
- [32] S. Kihagi, "Malawians to pay for fuel services using Airtel Money", available online <http://www.humanipo.com/news/36717/malawians-to-pay-for-fuel-services-using-airtel-money/> [retrieved October 2014].
- [33] [13] p. 169. See also J. Aker and I. Mbiti, "Mobile phones and economic development in Africa" Center for Global Development Working Paper, 2010, p. 20, available online [http://www.cgdev.org/files/1424175\\_file\\_Aker\\_Mobile\\_wp211\\_FINAL.pdf](http://www.cgdev.org/files/1424175_file_Aker_Mobile_wp211_FINAL.pdf) [retrieved November, 2014].
- [34] K. P. Donovan, "Mobile Money, More Freedom? The Impact of M-PESA's Network Power on Development as Freedom" 6 International Journal of Communication 2647, p. 2653.
- [35] *National Payment Systems Annual Report 2012*, Reserve Bank of Malawi, 2013, p. 10, available online [http://www.rbm.mw/documents/payment\\_systems/payment%20systems%20annual%20report%202012.pdf](http://www.rbm.mw/documents/payment_systems/payment%20systems%20annual%20report%202012.pdf) [retrieved November, 2014]
- [36] *Malawi National Payment System: Vision and Strategy Framework for the Period 2009-2013*, Reserve Bank of Malawi, 2008, p. 6, available online [http://www.rbm.mw/documents/payment\\_systems/NPS%20Vision%20%20Strategy%20Framework%20December%202008%20Final.pdf](http://www.rbm.mw/documents/payment_systems/NPS%20Vision%20%20Strategy%20Framework%20December%202008%20Final.pdf) [retrieved November, 2014].
- [37] A. Dermish, J. Phiri and C. Sanford "Mapping the Retail Payment Services Landscape Malawi" Finmark Trust, 2012, p. 4, available online [http://www.finmark.org.za/wp-content/uploads/pubs/Rep\\_RPS\\_landscape\\_Malawi\\_2012.pdf](http://www.finmark.org.za/wp-content/uploads/pubs/Rep_RPS_landscape_Malawi_2012.pdf) [retrieved November, 2014].
- [38] T. K. Omwansa, "M-PESA: Progress and prospects" Innovations (Mobile World Congress) 107, p. 121.
- [39] F. Ndiaye, "National Strategy for Financial Inclusion: Challenges and Opportunities" (3rd African Microfinance Conference, Kampala, 20 – 23 August 2007)
- [40] [35] p. 11.
- [41] [35] pp. 11-12.
- [42] G. Gondwe, "Malawi leads in mobile phone development", available online <http://www.bizcommunity.com/Article/415/78/46532.html> [retrieved October, 2014].
- [43] *Mobile cellular subscriptions (per 100 people) in Malawi* 2010, available online <http://www.tradingeconomics.com/malawi/mobile-cellular-subscriptions-per-100-people-wb-data.html> [retrieved October, 2014]; H. Lancaster, "Malawi - Telecoms, Mobile, Broadband and Forecasts", available online <http://www.budde.com.au/Research/Malawi-Telecoms-Mobile-Broadband-and-Forecasts.html> [retrieved October, 2014].
- [44] [41].
- [45] *2008 Population and Housing Census*, available online [http://www.nsomalawi.mw/images/stories/data\\_on\\_line/demography/census\\_2008/Main%20Report/Census%20Main%20Report.pdf](http://www.nsomalawi.mw/images/stories/data_on_line/demography/census_2008/Main%20Report/Census%20Main%20Report.pdf) [retrieved November, 2014].
- [46] *Malawi Unemployment Rate*, available online <http://www.tradingeconomics.com/malawi/unemployment-rate> [retrieved November, 2014].
- [47] [46].
- [48] [45] p. 14.
- [49] *Malawian snapshot : 2013 Quarter 2 KPMG Malawi*, 2013, available online [https://www.kpmg.com/Africa/en/KPMG-in-Africa/Documents/2013%20African%20Country%20Reports/KPMG\\_Malawi%202013Q2.pdf](https://www.kpmg.com/Africa/en/KPMG-in-Africa/Documents/2013%20African%20Country%20Reports/KPMG_Malawi%202013Q2.pdf) [retrieved November, 2014].
- [50] B. M. Maurer, "Mobile money regulation: A story arc of best practices and emerging realizations" Notes from the Field, available online [http://faculty.sites.uci.edu/wmmaurer/files/2011/12/Note\\_Dec2011\\_IMTFL.pdf](http://faculty.sites.uci.edu/wmmaurer/files/2011/12/Note_Dec2011_IMTFL.pdf) [retrieved November, 2014].