# THE INTERNATIONAL JOURNAL OF SCIENCE & TECHNOLEDGE

## The Role of Context of Use in the Stabilization of Mobile Banking **Products: A Case of Selected Mobile Banking Products in Kenya**

## Dr. Martina Mutheu Mulwa

Lecturer, School of Journalism and Mass Communication, University of Nairobi, Kenya Dr. Ndeti Ndati

Lecturer, School of Journalism and Mass Communication, University of Nairobi, Kenya Faith Mutanu Muthini

Assistant Lecturer, Faculty of Media and Communication Multimedia, University of Kenya

## Abstract:

The poor and marginalized have been excluded from formal banking services for a long time. This exclusion has been occasioned by various factors key among them logistics and economic viability. Mobile banking, a wireless communication innovation promises to break these two barriers by providing access and also aggregating financial transactions by individuals to constitute viability. However despite this breakthrough, products utilizing this mobile phone technology have not experienced success in uptake and use. A multi case study of mobile banking products in Kenya, informed by the Actor Network Theory established that translation needed to recognize that products were context specific, the stability of mobile banking products was dependent on the interplay of all the actors (animate and inanimate) and what emerges from this interplay. Successful translations depended on how faithful key actors were towards their alliances. Significantly the study established three key theoretical implications in mobile banking if the implementation process had to result to stabilization: No single actor has the ability to set the networks course or impose its own culture and personal goals upon the other nodes sharing the network because the logic of the network sets the rules for participation in the network, a certain size of access points and users was necessary if mobile banking was to sustain itself and translation required that all means be used to ensure that the most successful model of mobile banking is put in place before roll out.

**Keywords:** Financial Inclusion, context of use in mobile banking, stabilization of mobile banking products

## 1. Mobile Money Use in Kenya

Mobile banking (m-baking), Mobile payments (m-payments), Money transfers (m-transfers) and Mobile-finance (m-finance) are terminologies interchangeably used to describe the tendency of people to use their mobile telephones to perform various financial transactions. Some of the transactions performed using mobile phones include storage of value (currency) in an account linked to their handsets (virtual account), transfer funds or even access credit or insurance products and general manipulation of the bank account to perform other transactions like withdrawals and bill payments (Jonathan and Camilo, 2008). In general terms this constitutes mobile money.

Mobile money is emerging as a preferred channel for financial services because of the ubiquitous nature of mobile devices and services, and the ability of mobile banking services to reduce overall operational costs, streamline operations, and expand customer base through flexibility. This promises to leapfrog the bank branch which has remained elusive to rural populations by tapping into these markets through the wireless communication technology.

Mobile banking is also seen as a promising model for increasing access to formal financial services to those who have been living without it and could as well make banking more convenient and possibly even cheaper in the long run for those who already have access. Porteous (2006) identifies two forms of mobile banking emerging from these new models:

Additive approaches, which target existing banked customers and which offer mobile channel as an additional channel alongside or as part of others and

Transformational approaches, which intentionally reach out to markets beyond the existing banked groups through a product offering which meets the known needs of the unbanked people.

Unbanked people in most developing countries are a heterogeneous group that constitutes people who may have adequate incomes from both formal and informal sources as well as poor rural dwellers. MicroSave (2006) lists elements required for basic financial services to meet the needs of the unbanked and in that sense to be transformational as follows: A safe place to keep money, The ability to cash in and cash out at convenient locations at a reasonable fee; and the ability to transfer money to make payments and to remit money to friends and relatives. In addition mobile money affords the user an opportunity to execute transactions unaided, make financial management decisions and to transact in real time, anytime and anywhere.

Mobile banking services are delivered by different institutional and business models in Kenya. Some are offered entirely by banks like, 'Equity Agent', by Equity bank and KCB 'Mtaani' by KCB, Coop Kwa Jirani by Co-operative Bank; others entirely by telecommunication providers like M-PESA, Airtel Money, YU Cash and Orange Money while others involve a partnership between a bank and a telecommunications provider like M-KESHO between Safaricom and Equity bank, PESA PAP between Safaricom and Family bank and IKO PESA between Orange and Equity bank<sup>1</sup> and the latest Mobi-bank a money transfer service by KCB among others.

Use of agents in reaching remote areas that serve majority of the target population in this study is instrumental in supplementing the Kenyan bank network which according to the Central Bank of Kenya survey CBK (2008), has limited infrastructure. With 876 bank branches and 1500 ATMs countrywide, the figure represents two ATMs per 100,000 people which reflect the sectors narrow outreach. However, the number of mobiles in Kenya has grown to 31.03 million (CCK, 2014), an indication that the mobile phone offers both banks and users a tremendous financial opportunity. The concentration of the bank infrastructure is in urban areas which excludes those in remote rural areas. Many Kenyans therefore are excluded from traditional banking services; this paper explores the use of mobile phones to execute monetary transactions with the aim of recommending an appropriate methodology for studying mobile money systems and in effect able to inform users on the best way to address emerging issues from the use of the products.

The nature of mobile banking is that of interdependence. Recognizing that mobile banking is a cross-sectoral undertaking requiring stable relationships of all actors animate and inanimate, this study seeks to focus on the context in which mobile banking operates in an effort to unearth whatever it is that surrounds the usage and come up with an informed stabilization model for successful uptake and use.

Context of use has been defined as the actual conditions under which a given artifact/software product is used, or will be used in a normal day to day working situation (Encyclopedia Britannica), the situational factors that influence the use and usability of a system. They include:

- Environmental factors which include physical conditions such as space, time, temperature and noise.
- · Organizational factors which include social network, management and organizational pressures, and work processes.
- · Technical or system factors which include network connectivity, system configuration, and system stability.
- Social factors such as culture, family conflicts, economy, ethical standards.

An in depth analysis of the above factors, together with other emerging factors specific to agency banking is key to establishing relationships that could facilitate a successful execution and sustainability of mobile banking products for financial inclusion of the poor and marginalized.

In an effort to establish a stable coexistence of recruited actors in mobile banking executions and in realization that mobile banking is a cross-sectoral undertaking with multiple actors, the Actor Network Theory (ANT) was central in the study to not only guide in the identification of actors as a methodology but also as the theoretical framework to gain an in depth understanding of the emergent actor network and the roles of each actor.

## 2. Mobile Banking Studies

While researchers have documented evidence about the potential of mobile banking to close the digital divide (Dholakia & Kshertri, 2004) and have described it as a leap from the world of cash to cellular banking (The Economist, 2006), there is also evidence that the only successful venture of mobile money in Africa is M-PESA in Kenya despite such initiatives having been tried in countries like Uganda, Tanzania, Ghana among others (GSMA annual report 2011). While also the benefits of mobile money are clear, there is doubt over whether these mobile money systems are truly fulfilling their growth potential (World Bank 2012). There are also similar products in Kenya that have not experienced a rapid adoption as M-PESA (Mulwa, 2013). Mobile banking has been attributed to double leapfrogging, the first one from landline to mobile and the second one from traditional banking to virtual banking (Dr. Lennart Bångens and Björn Söderberg 2008, World Bank, 2012) yet there is not much of a success story as challenges and uncertainties remain in reaching a deeper understanding of demand, usage, and impact amongst lesser off market segments.

Similarly studies have been done on the adoption and impact of mobile phones on users' (Ivatury & Pickens, 2006; Porteous, 2007), yet scholarly research on the context and use of mobile banking systems in the developing world is not evident as the systems are new (Maurer, 2008). This study seeks to link the stability of mobile banking products to the interplay of actors in the emergent network and further determine the role of the key actors in each context.

## 3. Research Questions

Mobile banking though a viable model for financial inclusion has not experienced success in uptake and use especially by unbanked populations. So, what ails the relationships in mobile banking and what studies could inform the sector? Who are the actors in mobile banking? What are their roles in the emergent mobile banking networks? And what trajectory would best address financial inclusion of these lesser off segments? This paper therefore determines the context of use of mobile banking and its role in the uptake and use of mobile banking products targeting the poor and marginalized and draws lessons on the usefulness of the Actor Network as a framework for studying the context of use of mobile banking products.

## 4. Network formation in Mobile Banking

Mobile money systems are new models in Kenya and in many developing countries that seek to provide formal banking services to populations that may not have had access to bank branches. Consequently the execution process requires the input of various actors drawn from different sectors. The cross- sectoral undertaking calls for prudent strategies to sustain the relationships as well as a product structure that meets the needs of the target populations. Among key actors in the execution process are the banks themselves acting as the focal actors, the regulatory authorities, agents, users and mobile network operators (MNOs) among others. The network formation calls for an understanding of the context in which mobile banking services are offered in order to facilitate the design of an execution model that would effectively address the financial needs of the unbanked appropriately. It is for this reason that the study discusses network formation and conditions for stabilization of emergent networks.

## 4.1. The Actor Network Theory (ANT)

The Actor Network Theory (ANT) was used in this study as ANT particularly recognizes the crucial role played by both the social and the technical and in order to understand the success of any execution process that incorporates the two, each element social or technical has to be understood from the perspective of the role played for the collective objective. This is informed by the fact that neither the inherent properties of technology nor the properties of the social context drive the success or failure of the implementation of mobile banking rather the associations that exist and are created between the technology and its surrounding actor's i.e. actors that are both technical and social. ANT proposes a new translation which focuses on associations rather than properties. The radical deviation focusing on associations is particularly ideal as it allows for an analysis of all contextual factors (environmental, technical, social, regulatory or organizational) in an effort to understand why mobile banking products do not attract significant uptake and use among the lesser off segments

The theory's aim is to describe a society of humans and non humans as equal actors tied together into networks built and maintained in order to achieve a particular goal (Callon and Latour 1991). This theory stresses the fact that these networks do not act in isolation but are built in and have to be maintained in order for goals to be achieved. There is effective cognizance of the role of each actor in the execution of defined mandates in the network.

The ANT methodology is appropriate in the analysis of the set of negotiations that describe the progressive constitution of a network in which humans and non human actors assume identities according to prevailing strategies of interaction. In order to address the objective of financial inclusion through agency banking, it is important to understand what elements are involved and how these elements map out their coexistence. In ANT the actor identities and qualities are defined during negotiations between the representatives of human and non human actants. At the initial stage the focal actor representing the innovation has to identify crucial associates in order to execute the product. Even before trials, there has to be effective legislation to ride on, the telecommunication company to provide the infrastructure and a technological device for the transactions. The representation by these players entails delegation which involves:

- Construction of common definitions and meanings the product execution must be of relevance to the actors approached
- Define the representativities- the specific role of each actor approached must be spelled out. This spells out the functions of the actors in the execution of the product. Banks to offer float balancing, telecoms to provide the network infrastructure, regulatory authorities to provide laws of operation, users to perform transactions and system operators to ensure programs work effectively and efficiently.
- Co-opt each other in the pursuit of individual and collective objectives- there is an agreement of the benefits to each actor
  at an individual level and at a collective level and consensus has to be reached on what each actor gets then follows the
  agreement in partnership. Users must be clear of accrued benefits, banks and telecoms must map out profits for the
  company and other benefits, agents must consent on commissions to be earned and regulatory authority must achieve its
  objective for co-option to take effect.

Networks are put into place by actors. Since there is no actor without a network, new actors emerge from existing ones. The attempt of an existing actor to grow and include new domains is the starting point in the emergence of a network. Networks allow actors to translate their objectives. Through negotiations, intrigues, calculations, acts of persuasion and violence an actor is conferred authority by the actors to act or speak on behalf of others (Callon, Latour, 1981). Translation is the creation of actors and the process consists of four major stages (Callon, 1986):

- Problematization- It is the stage and process where the focal actor sets to recruit others to partner in offering the product.
- Interessment- this is the process of convincing other actors to accept definition of the focal actor.
- Enrollment- this is the moment that actors accept the interests defined by the focal actor.
- Mobilization At this stage compliance of enrolled actors is ensured by monitoring the network and addressing descent as and when it arises. The key actors use the stability in the network to enact solutions.

## 5. The Theoretical Framework

The following is a conceptualization of the Actor Network theory to aid in the explanation of pertinent issues defining the use of mobile money products in Kenya.

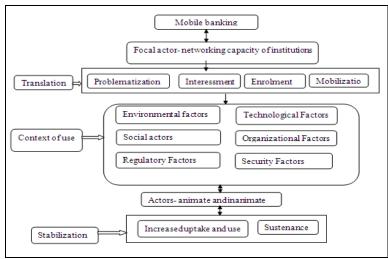


Figure 1: The Theoretical Framework.

## 5.1. Theoretical Framework Explained

The network society is the society formed out of the dynamic interrelationships of actors animate and inanimate in the mobile banking structure. Various products have been selected for this study, and each product is conceptualized by an independent company, these companies act as the focal actors bearing the responsibility of translating the product to realize their goals. Mobile banking does not take place in a vacuum but under the influence of surrounding factors. Context of use analysis provides for a limitless understanding of the various factors that may influence the actual use of the products.

Guided by the context of use the focal actor sets out to establish partnerships through translation in order to enlist actors that would enable the product diffuse to the targeted populations and attain actual use by the end users. Translation involves establishing roles that are beneficial to would be actors, targeting the particular actors to execute the particular roles that have been assigned and pursuing those actors in order to take up their roles in the network. This is done through problematization, interessment, enrolment and mobilization.

The translation process is dependent on actors. These are elements that together cooperate for the success of a product. In the framework any element that is involved in the execution of mobile banking becomes an actor. In essence any factor that affects the realization or the being/becoming of mobile banking is considered an actor. These actors can either be animate or inanimate. Any actor assigned a role and participates in action is referred to as an actant; that which is capable of doing. All actors that are human are called animate. They include the users, agents, bank officials, marketers, communicators, regulators, innovators, communication officials among others while all non human actors are inanimate and they include networks, outlets, mobile devices, electricity, chargers, mobile network tariffs, product design, transaction tariffs, opening hours, location, security, convenience of shops, culture, trust, float availability, literacy, awareness, IDs, compliance documents for agents among many others.

If translation does not result to convergence, it means persuasion by the focal actor did not yield enrolment and intermediaries have to be used more to bring consensus. Intermediaries may result to increased commissions, more fees to the regulator, more persuasion or any strategy to reinforce the relationship. Emerging issues from actual use have also to be addressed effectively through mobilization to ensure that the products address the needs of the people.

When stabilization has been reached the focal actor will continue to grow in size and heterogeneity. Actors will find it difficult to leave and new actors will seek to join the network. Because of the heterogeneity and size actors will be dependent on the focal actor as a result the focal actor will become heavy with norms of entrance.

Stabilization following the theoretical framework therefore is as a result of activities in the network society, the context of use of mobile banking products, the translation done by the focal actor and the ability of the actors themselves to perform roles as assigned.

## 6. Methodology

In an attempt to justify the use of the Actor Network theory and in effect the preferred methodology of studying mobile systems use, findings of a case study undertaken in Kenya in 2012 (Mulwa, 2012) provides the practical examples to support discussions. The ANT methodology adopted in the study allowed the researcher to follow the actors and examine inscriptions and effectively triangulate the mobile money use phenomena. The use of both animate and in animate actors was crucial in understanding the relationships that elicited a stable network for sustainability of the products for the benefit of target populations. Following use of the product from every perspective as informed by ANT, an understanding of contextual factors influencing the use of mobile money products was attained.

## 7. Discussions in Line with ANT

The study revealed that Mobile banking execution depended on various partners called actors in the Actor Network theory. Through representation, a process of delegation is initiated where common definitions and meanings, representativities and co-option in pursuit of individual and collective objectives are translated.

The actor network theory postulates that a set of negotiations describe the progressive constitution of a network in which humans and non humans assume identities according to prevailing strategies of interaction. Translation takes place in various stages. All three cases initiated innovations that needed to be diffused to target markets; however the diffusion needed various partners to attempt these executions. However any partner that was to be recruited into the network had to be associated with the initiating bank in a way or the other. The bank became the obligatory passage point (OPP) mandating itself with the task of seeking partners without whom the services would not take off and in effect the beginning of the process of problematization.

Conceptualization of ANT provided the study with the lens to identify and explore the crucial factors that surround the usage of mobile banking. These crucial factors do not limit the exploration to current issues only but the social and historical contexts of the artifact (Orlikowski and Iacono (2001). With majority of the world's poor and marginalized excluded from necessary services, financial services being one of them (World Bank report, 2010), and with society actively seeking to remedy the situation (Stephen 1980), the search for a solution to financial inclusion of rural populations has been ongoing. Findings in this study confirm that over 48% of the respondents did not have accounts before agency outlets in their localities.

ANT does not only focus on the current relationship formation but strives to understand the context historical and eminent that informs the current practice. In this context therefore ANT does not limit itself to an independent perspective in describing the how and why we have mobile banking today but allows for an exploration of all factors that surround its usage. Guided by the conceptualized ANT model, the environmental, social, technological, organizational, security and regulatory factors together shape the emergent product of mobile banking.

A recap of the historical and social context of mobile banking network formation as captured in the findings point to the fact that financial exclusion was the unsatisfactory condition that Safaricom, the initial innovator of mobile transactions in Kenya aimed to resolve. Eventually banks referred to as the focal actors in respect to mobile banking embraced the innovation and set out to diffuse and implement the product.

Despite glaring barriers to financial inclusion manifest in the targeted rural and poor populations, the study established that the agency banking model required identification documents to register users, agents were required to meet and submit various documents to participate, agents were required to undergo the same due diligence procedures for each independent outlet they needed to open, the model did not allow subagent contracting and only equity bank had done an extensive awareness campaign across the country to sensitize populations on how to use and benefits of use. While the study recorded an insignificant use of the product by targeted populations, the banks did not consider negotiating for a model that could guarantee scaling of the product as the identified requirements constituted barriers to uptake and use. The actual experience of the study did not see any serious input from the banks in terms of defining their product, the specific customers they target or the strategy they seek to use to access these customers. Much to the disappointment of the study, one of the strategies of recruiting agents was to identify an M-PESA shop and then approach the owner. There was a serious impression in this study that agency banking was reactive and lacking independence of both approach and novelty. Experience surveys indicated that some of the banks did not care about what the agents got; their interest was the aggregate commission of all agents. It is necessary for all actors to realize that mobile banking is dependent on the commitment of all actors, if the agent is dissatisfied and pulls out of the network; there is a possibility that the entire network could tumble hence the need to coopt each other in the pursuit of individual and collective objectives.

As realized from the study, mobile banking network is put in place by an actor and since there is no actor without a network new actors emerge from existing ones. Taking an example of equity bank with its product agent bank, first the bank as an entity already has a network of users, employees, network providers, a data base, structures, a culture, brand and other partners in its existence. However the new product takes its own structure with new alignments independent of the existing ones. So through negotiations, intrigues, calculations acts of persuasion and violence (Callon, Latour, 1981) the focal actor is conferred the authority of other actors to act on behalf of others through a series of stages i.e. problematization, intressment, enrolment and mobilization. Through the process, networks emerge through the alignment of more and more actors. Large networks are those that have translated others and have therefore grown. The relationship however has to be natured; exchange of intermediaries is continuous as no network is independent as they will always need actors. A significant implication here is that the power of this translation is crucial. Who can the focal actor interest, who is willing to partner with the focal actor and what is the focal actor capable of offering as a reward (intermediaries) for the partnership? In effect the more powerful the organization, the brand, the CEO or the possible benefits of partnership or seemingly shared interests, the more likely that significant actors will agree to be aligned.

In a related observation in a mobile money conference in Nairobi 2012, Dr. Wolfgang (world bank representative) alluded to the fact that M-PESA succeeded in Kenya because the CBK allowed the MNO Safaricom to play around with regulation to find out what worked best for it, however in the same forum, Mr. Mwaura (CBK representative) scathed at the remarks claiming that CBK had no loop hole and regulation to govern monetary transactions was in full force. While the two arguments may have been viable, the only missing point was that whilst regulation may have been in existence, Safaricom was able to translate the existing regulation to conform to the interests of M-PESA making the spectators out there believe that regulation was nonexistent. The cases at hand lack this commitment of owning the product to ensure that it works. ANT is very insightful in this scenario, as no actor is greater than another, each is co-opted and the benefits spelt out, for enrolment then the actor is confident of the shared benefits, any contravention of the agreement by whichever side is detrimental to the success of the network which in effect sustains the product. Constant mobilization is necessary to ensure that all actors are satisfied with the roles they play and the benefits they accrue from the partnership. Any dissatisfaction is then addressed through exchange of intermediaries or new definitions.

The exclusivity clause also made Safaricom safeguard its profit margin as their well to do entrepreneurs were tied by the clause, the fact that they are offering financial services and consequently not regulated allows them to pass all liability to agents. Consequently they purposefully went for the sub-agent model which allows for a registered agent to recruit any willing person to offer services on their behalf and due to the snow ball effect almost every shop in Kenya is an M-PESA shop. The difference between the two mobile money operators in Kenya is that Safaricom is proactive, the banks on the other hand are reactive addressing emerging issues related to use and therefore are not in a position to strategize for future eventualities. These leaves their fragile partners i.e. agents and users frustrated because of products that do not address their needs as well as poor services as a result of poor negotiations of the support infrastructure.

As banks continue working with rigid models, the mobile network operators' continue to enjoy enormous profits. Instead of grumbling over the Safaricom model, banks should push further to get the model which works for the scalability of their products as the more stable a network is the better it defines its components and the smaller the leeway for other networks to untie the networks in order to redefine the actor for its own purposes. This was evident from FGD discussions as well as the key informants as no M-PESA agent was willing to substitute the M-PESA agency for the agency business during the time of the study. However the status is not permanent and continuous review of the impediments to a stable relationship could propel mobile banking products to profitability and irreversibility.

With the stringent rules governing agent banking, agent bank actors have a significant task at hand, if the translation process is denied and actors leave i.e. no partner prefers them, circulation of intermediaries becomes difficult and alignment becomes weaker and weaker, actors begin to diverge and the setting disintegrates. One of the transformational products in Kenya that was of potential in this study was M-KESHO a product that was launched significantly, however data from the CBK dated February 2012 shows that M-KESHO had 799,532 accounts with 240,633 customers having already transacted. Six months after its launch in May 2010, the product had 613,000 subscribers, indicating a declined rate of uptake. The report also says the two firms had difficulties reaching a working agreement for the product.

What Safaricom and Equity did not realize was that an actor thrives for stabilization because none of the entities which make it up would exist without that network in that form. The stabilization of a network thrives on the impossibility it creates of returning to a situation in which its current form was only one possible option among others (Castells, 2004). Both firms are market leaders, Safaricom the leading MNO in Kenya (17 million subscribers) and Equity with the highest number of accounts (57% of accounts in Kenya), but the prescriptions in the current status do not count in their partnership in M-KESHO. Framing of the relevant prescriptions towards a stable relationship of the new formation is what matters. So it doesn't matter how stable actors are in their current form, if they don't commit themselves to the roles assigned in the emergent networks, these networks do not stabilize.

Another significant input by ANT is the realization that although actors in the network have to work together, some actors require more effort to convince than others. Actors with prior prescriptions may lead to the exchange of more intermediaries because their existing prescriptions may need to be altered or framed to conform to the interests of the new network. For example regulations in recruitment of banking agents exist in Kenya, but agent banking requires that these regulations be changed to permit scaling of the products. These requires more convincing.

## 8. Conclusion

While previous studies have tended to study mobile systems as entities, and therefore possible to apply traditional study methods, it is evident from the findings that the interactions amongst various actors call for an in-depth analysis of the roles played by each actor and necessary reinforcements for the sustenance of the network formed. Consequently mobile systems are not universal entities of study and each product has its own dynamics with a distinct trajectory for execution and adoption by its target users, for this reason case studies using ethnographic study methods are crucial in gaining an understanding in the usage of these products. This is because mobile money use is a way of life and researchers have to immerse themselves in the lives of users to gain an in-depth understanding of their interaction with the products. The foregoing discussions point to the fact that all actors are crucial in network formation hence a trajectory of actors necessary for co-option in any mobile money system is necessary. An agency banking trajectory in Kenya could be visualized as below:

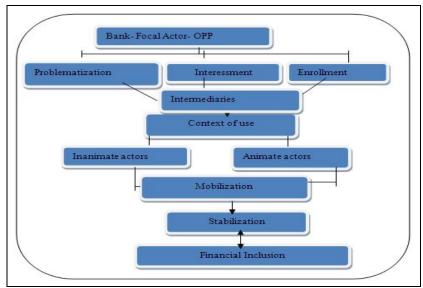


Figure 2: The stabilization trajectory

## 8.1. ANT based model for financial inclusion of the Poor and Marginalized explained.

The ANT model represents how meaning is bound by context and process and consequently how designers, agents, users, regulators, technology and the other actors are enabled as well as constrained in their practices. The interrelationships, dependencies and mutual configurations provide a better perspective lens for understanding the context of use of mobile banking.

The aim of the model is to synthesize ANT in the study of Context of use in order to develop it to a systematic framework for studying consequent mobile money based products. The model demonstrates the complex and interdependent issues and their implications on the actual rollout and use of mobile banking products. Butler (1998) asserts that, the understanding of mobile banking as a product of human action is subject to a circle of understanding that includes the whole and the parts that constitute it. It is therefore only parsimonious for this study to end with a model that demonstrates the linkage of all actors animate and inanimate and the roles each plays in the stabilization (or destabilization) of mobile banking as provided for in discussions.

The trajectory for stabilization of mobile banking products studied can be followed from the innovators of the products and the execution strategies adopted by the focal actors. The context of use of the products however determines what elements are to be followed and what roles are to be assigned for successful interplay. Therefore the translation (problematization, interessment and enrolment) process is guided by the establishment of a working relationship of all actors animate (agents, users, regulators and banks officials) and inanimate (environmental, social, technological, security, organizational, regulatory) through mobilization strategies whose intervention strategies constitute distribution of intermediaries.

When actors are comfortable with their roles (Punctualized) and the artifact (mobile banking product) is black boxed and therefore difficult to open, actors will do anything to ensure that the stability stays. Stability at this stage is for the benefit of all actors and each actor plays their role to ensure that they are not the weakest link. It is when all actors are executing their roles as assigned, they are happy with their participation in playing their roles as well as the benefits they accrue from the relationship that financial inclusion of the poor and marginalized, the goal of this study is realized.

A rider to stabilization in this model is that each stabilization process is actor network specific i.e. what entails one actor network formation and stabilization may not take the same trajectory as another actor network formation. In other words there is no recipe for financial inclusion parse, it is to highlight what needs to be done and by which actors and therefore entirely on the efforts of the translators to get it right and translate those roles they feel are crucial for the stabilization of their specific network.

As indicated by Latour, network formation and stabilization is precarious, it is not a permanent scenario and the black box can be opened. Therefore, though this study may use terminologies informed by ANT such as stabilization, irreversibility or even punctualization, actor networks that have attained this status must continuously participate in mobilization to ensure sustainability of the product for continued coexistence of the actors.

#### 9. References

- 1. Callon, M. (1986). The Sociology of an Actor Net-Network: The Case of the ElectricVehicle.pp. 19-34 in Callon, Michel; Law, John; Rip, Arie (eds.) Mapping the Dynamics of Science and Technology. London: MacMillan
- 2. Callon, M. (1991). Techno-Economic Networks and Irreversibility. in Law, John (ed.) A Sociology of Monsters: Essays on Power, Technology and Domination. New York: Routledge
- 3. Callon, M., Latour, B. (1981). Unscrewing the Big Leviathan: How Actors Macro-Structure Reality and How Sociologist Help Them To Do So. pp. 277-303 in Knorr-Cetina, K.
- 4. Castells, M. (2004). The Network Society. A Cross-cultural Perspective: Edward Edgar publishing.
- 5. Castells, M. (1996). The rise of the Network Society 2<sup>nd</sup> Edn. Oxford: Blackwell.

- Castells, M. (2004). "An Introduction to the Information Age" in The Information Society Reader, Frank Webster, Raimo Blom, Erkki Karvonen, Harri Melin, Kaarle Nordenstreng, and Ensio Puoskari, editors. London and New York: Routledge, 2004. pp 138–49.
- 7. CBK (2008). CBK Regulations. Available at http://centralbank.go.ke/downloads/acts/regulations/draft\_agentbankingproposal.pdf.
- 8. CBK (2010). Guidelines on Agent Banking CBK/PG/15. Available at. http://centralbank.go.ke/downloads/bsd/GUIDELINES/ON/AGENT/BANKING/CBK/2015.pdf
- 9. CBK (2010). Mobile Banking Act 2010. Available at. http://centralbank.go.ke/downloads/mobilebanking/act.pdf.
- CCK. (2014). Statistics Sector Report 2013/2014 Available at www.cck.go.ke/rsc/statistics/SECTOR\_REPORT\_Q1-1011.pdf
- 11. Encyclopedia Britannica, Inc (1994-2011)
- 12. Equity bank. (2012), Achievements. Available at http://www.equitybank.co.ke/index.php.
- 13. FATF (2010). The review of standards. Preparation for the 4<sup>th</sup> round of mutual evaluations. Consultation paper, pp.9.
- 14. Fredrik, B., and Martin P. (2009). Assessing Factors Influencing the Diffusion of Mobile Banking in South Africa: a case study on the Company Wizzit. School of Business Economics and Law, Gothenburg University.
- 15. ITU (2008). infoDev ICT Regulation toolkit. UA Module: http://thornton.co.za/resources/gg31333-nn987-pg2-31.pdf.
- 16. Latour, B. (`1996). The powers of association. In Law J. (ed). Power and Belief. A New sociology of Knowledge. London: Rutledge.
- 17. Latour, B. (1991). Reassembling the social: An Introduction to Actor-Network Theory. Oxford: Oxford University Press.
- 18. Maurer, B. (2008). Retail electronic payment systems for value transfers in the developing world. Department of Anthropology, University of California.
- 19. Orlikowski, W. J. and Iacono, C.Z. (2001). Desperately seeking the "IT" in IT research- a call to theorizing the IT artifact. Information Systems Research 12(2): 121-134.
- 20. Porteous, M. (2007). The enabling environment for mobile banking in Africa. London: DFID.
- 21. Ramsamy, T. N. (2008). Towards a Conceptual Framework for understanding the Implementation of Internet Based Self Service Technology. University of Pretoria. Available at http://upted.up.ac.za
- 22. Tarazi, M. (2010). "Branchless Banking: The Test and See Approach." Blog post. http://technology.cgap.org/2010/02/09/branchless-banking-the-testand- see-approach/
- 23. Tarazi, M., and Paul B. (2011). "Regulating Banking Agents." Focus Note 68. Washington, D.C.: CGAP, March.
- 24. World Bank (2010). Financial and private Sector Development. A Market approach to Development Thinking. available at http://blogs.worldbank.org/psd/promoting-financial-inclusion-is-mobile-money-the-magic-bullet#comment-12256.
- 25. World Bank (2012). Information and Communications for Development 2012: Maximizing the Mobile: Washington DC: World Bank