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Network Logic And The Stabilization Of Mobile Banking Products A Case Study Of Selected Mobile Banking Products In Kenya

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Abstract:
Financial inclusion of poor and marginalized populations has been a development agenda for the Kenyan Government for a long time though hampered by two main barriers; access and economic viability. Mobile banking, an ICT based innovation promises to break these two barriers by providing access and also aggregating financial transactions by individuals to constitute viability. Despite this breakthrough, mobile banking products, availed to these populations have not experienced significant success in uptake and use. The aim of this paper is to underscore relationships in mobile banking, in order to establish what ails the relationships and what needs to be done to stabilize these networks for financial inclusion of the poor and marginalized. A multi-case study of three mobile banking products i.e. Equity agent, Coop Kwa Jirani and KCB Mtaani and informed by the Actor Network Theory (ANT) methodology of following actors was undertaken. The research explored the various relationships in agent banking; roles assigned to actors and mitigating strategies for implementation and adoption. Research findings established that the ability of the focal actor to put together actors and create an ecosystem that fosters the relationship is crucial for stability of mobile banking products. Active leadership and deliberate efforts to align roles of recruited actors to the interests of the common product aid in reinforcing coexistence in the network. That notwithstanding, the faithfulness of the key actors to the process is imperative for any network formation effort to be successful.

***Key words**: Stabilization, Financial Inclusion, Mobile Banking, Poor and Marginalized.*

1.Introduction

Financial access studies (2009) put the bankable population in Kenya outside the traditional financial access bracket at 32.7%. One of the Vision 2030 goals in Kenya is to provide financial services to the majority of the poor. Though this may have been a long stretch, a ray of hope lies in the Information Communication Technology (ICT) based mobile banking models. The promise is reliant on the three basic characteristics of ICTs, self expansion, flexibility and recombination.

Banking on the wide mobile phone access as indicated in Table 1: where 89.10 percentages of the Kenyan population had access to mobile services as of March 2012 and the increasing mobile network coverage by the four Kenyan Mobile Network Operators (MNO) where the land mass coverage rose to 34.45 from 32.12 this communication infrastructure may as well leapfrog the traditional bank branch model and provide a solution to the long sought solution for financial exclusion.

Mobile Coverage	January- March 2012	January – March2011	Variation in percentage
Population coverage in percentage	89.10	84.0	6.1
Land coverage in percentage	34.45	32.12	7.3

Table 1: Mobile Coverage
Source CCK, Operators Returns 2012

Mobile penetration also recorded a tremendous increase over the years with the latest CCK operator report indicating that mobile phone users in Kenya were 29.2 million as of March 2012.

A report commissioned by the Government of India (GoI, 2008) defines financial inclusion as 'the process of ensuring access to financial services and timely and adequate credit, where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost'. The study significantly highlights access to financial services, provision of timely and adequate credit, assistance to vulnerable groups and extension of assistance at an affordable cost as key determinants of an effective financial inclusion strategy.

Continued exclusion has far reaching consequences in the management of financial obligations of those affected. A World Bank (2010) report on consequences of financial exclusion explains that these people first are excluded from any payment system, that is to say, not having access to any type of banking facility and Secondly, exclusion from the formal credit markets leads these excluded individuals and groups to depend on informal and exploitative markets. The commonly excluded sections are poor people living in rural and remote areas, small scale farmers, labourers in farms and construction sites and other casual engagements, the self-employed, urban slum dwellers and small enterprises in the informal sector. On account of their exclusion, they are not able to access mainstream services a situation which makes their lives more difficult.

There are various definitions of Mobile banking but this study focused on mobile banking in reference to financial services offered through alternative banking channels by the traditional bank branches, delivered via mobile networks and performed on either the mobile phone or a Point of Sale (PoS) device. These models are referred to as agency banking in Kenya. This was mainly because while various mobile banking models exist, some are merely money transfers services and unable to afford the previously un banked populations additional value. Traditional bank services are seen as transformational because of their ability to extend credit to these populations if they have some form of account history, account holders can get interest for money banked, these can be channels of payment for the salaried, saving money in a bank account helps in financial management, parents are able to pay school fees easily, bankers cheques become cheaper and cashing cheques is easier if one has an account.

Mobile banking services are delivered by different institutional and business models. Some are offered entirely by banks like, 'Equity Agent', by Equity bank, 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 and the latest Mobi-bank a money transfer service by KCB among others. These partnerships in Kenya have been rocky with M-KESHO almost nonexistent, IKO-PESA barely surviving and the latest Mobi Bank by KCB modeled to compete with the Telecom led money transfer models.

The nature of mobile banking is that of interdependence. The banks require a network provider as well as an enabling regulation to execute their services. 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 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. For the purpose of this study this may include functions of organizations that propel mobile banking products to the target populations. These functions include innovation, diffusion, implementation and sustainability of the products in the market
- Technical or system factors which include network connectivity, system configuration, and system stability.
- Social factors such as culture, family conflicts, career aspirations, economy, ethical standards.

An in depth analysis of the above factors, together with other emerging factors specific to mobile 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.

This study therefore seeks to introduce the Actor Network theory (ANT) to not only guide the identification of actors as a methodology but also as the theoretical framework to gain an in depth understanding of the emergent actor network from the perspective of all the influencing factors.

1.1.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 needs to be done to stabilize these networks for financial inclusion of the poor and marginalized? Who are the actors in mobile banking? What are their roles in the emerging mobile banking networks? And what trajectory would best address financial inclusion of these lesser off segments?

The specific objectives of the paper were to:

- Determine the context of use of mobile banking and its role in the uptake and use of mobile banking products targeting the poor and marginalized.
- Apply the Actor Network Theoretical framework in studying the context of use of mobile banking products.

- Determine the usefulness of the actor network theoretical framework in studying the stabilization of mobile banking

2.Literature Review

Castells (2004) among other scholars has described today's society, the network society; as the social structure characteristic of the information age whose fundamental feature is the reliance on networks as the key feature of social morphology. Though the networks are old forms of social organization, they are now empowered by new information communication technologies enabling them to cope with flexible decentralization (Castells, 2000). Mobile banking is dependent on the transmission of information through networks. These networks are based on knowledge organized around networks and largely made up of flows. Flows are purposeful repetitive programmable sequences of exchange and interaction between physically disjointed positions held by the economic, political and symbolic structures of society (Franckle, Ham (2006). Communication between nodes in the disjointed positions creates a space of flows with business centers interconnected to other equivalent locales organized in a network that forms the actual unit of management, innovation and work.

Mobile banking models seeking to extend financial services to rural populations as well as service points for the banked use agent shops to avail services to populations whose mobile phones are enabled. By registration a virtual account is enabled in the subscribers SIM card to manage basic banking services such as withdrawals, deposits, account balance, money transfer, and pay bills among others. These services is networked in such a way that people in remote areas can use their phones to perform transactions that would traditionally be executed at the bank branch.

Since the networked practices are based on information flows processed between various sites by communication technologies, Castells points out that the space of the network society is made of the circulation of three elements:

- The places where activities and people enacting them are located
- The material communication networks linking these activities
- The content and geometry of the flows of information that perform the activities in terms of functioning and meaning

These three elements point to the fact that the characteristics of the people performing the transactions as well as the geographical locations where the transactions are to be performed constitute factors to the success of mobile banking, further the various devices used to facilitate the communication i.e. the mobile devices and their maintenance requirements, the networks and how effective they are and generally the access and the reliability of the networks is crucial. Lastly the content, what content is contained in the flows? This addresses usability and usefulness of the information flows. Are target populations able to engage usefully with the content in the networks? Does it address their financial needs adequately?

In the execution of activities of the network society, Castells places at the centre of the analysis the networking capacity of institutions, organizations and social actors as connectivity and access are essential. Essentially, the focal actor becomes indispensable in the networking process. Informed and strategic combination between information and communication technology, development of human capacity to take advantage of the full potential of these technologies and organizational restructuring based on networking becomes key to ensure productivity, competitiveness, innovation , creativity, power and power sharing (Franckle, Ham 2006).

The execution process as described requires the input of various actors drawn from different sectors. The cross- sectoral undertaking inevitably seeks 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.

The actor network theory has been widely used in IS studies to inform on Network formation and sustenance. In this study the researcher used ANT as both a theoretical framework to inform the study and a methodology to follow actors (animate and inanimate) and study the resultant heterogeneous relationships in mobile banking. The main focus was how activities in the network society govern themselves i.e. the network logic. Gaining a deeper understanding of how elements in the mobile banking networks co-opt each other and how translation occurs and can be enhanced to result to a successful relationship (stabilization) for the financial inclusion of the poor and marginalized.

2.1.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. The product of study (Mobile banking) suggests that both technology and social be accorded implied equal status as none of the two words i.e. mobile-technical and banking – social determine the other; there is no boundary in the constitution of the product. The contextual use of mobile banking has both technical and social merits at the same time and it may be appropriate to overcome the distinction between social and technical for better understanding. 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 mobile 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). Focal actors therefore seek out prospective partners and convince them to be part of the partnership. For this reason negotiation skills as well as power are crucial. The question is who or what is the focal actor able to convince and what benefits are likely to accrue from the partnership. It is important to note that not all focal actors will be favorably rated by probable partners; some associated with successful undertakings may find it easier to convince partners to form partnerships, while those struggling with image, market share and credibility may have an uphill task.

Translation is the creation of actors and the process consists of four major stages (Callon, 1986):

- Problematization- this is the first moment of translation during which the focal actor defines identities and interests of other actors that are consistent with its own interests and establishes itself as an obligatory passage point, thus rendering itself indispensable. 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 the definition of the focal actor. It involves the recruitment of actors. Key actors build interest and lock key allies in by finding ways to formulate the problem or solution in such a way that key allies will associate with their own interest with the formulation.
- Enrollment- this is the moment that actors accept the interests defined by the focal actor. Problem or solution is enacted as an accepted fact.
- Mobilization – At this stage the actors are already enrolled and the solution gets wider acceptance. Compliance is ensured by monitoring the network and addressing descent as and when it arises. The key actors use the stability of the network to enact solutions. Mobilization is used to address emerging issues

The ANT is a systematic way of bringing out the infrastructure that is used in the deployment of technological products. It is the act of linking together all influencing factors technical and non technical and. Based on the stable theory of the actor; it assumes the radical intermediates of the actor. Neither the actor's size nor its psychological make up nor the motivations behind its actions are predetermined. In other words actors in a network function as per definitions of that particular network, and the functions only measure up to the definitions of the network. Usually actors may be in different networks and their roles are independent in each network. This opens up social science to non humans as actors do not have to exist in themselves prior to any participation in eco-social and semiotic networks of interactions. The main reason why this paper places emphasis on all contextual factors and their constituent elements and understanding their roles and how best they can play those roles for increased uptake and use of mobile banking products.

2.2.The Theoretical Framework

Having discussed the various concepts supporting the theories used in this study we now conceptualize the same to aid in the explanation of pertinent issues defining the process of stabilizing mobile banking products in Kenya.

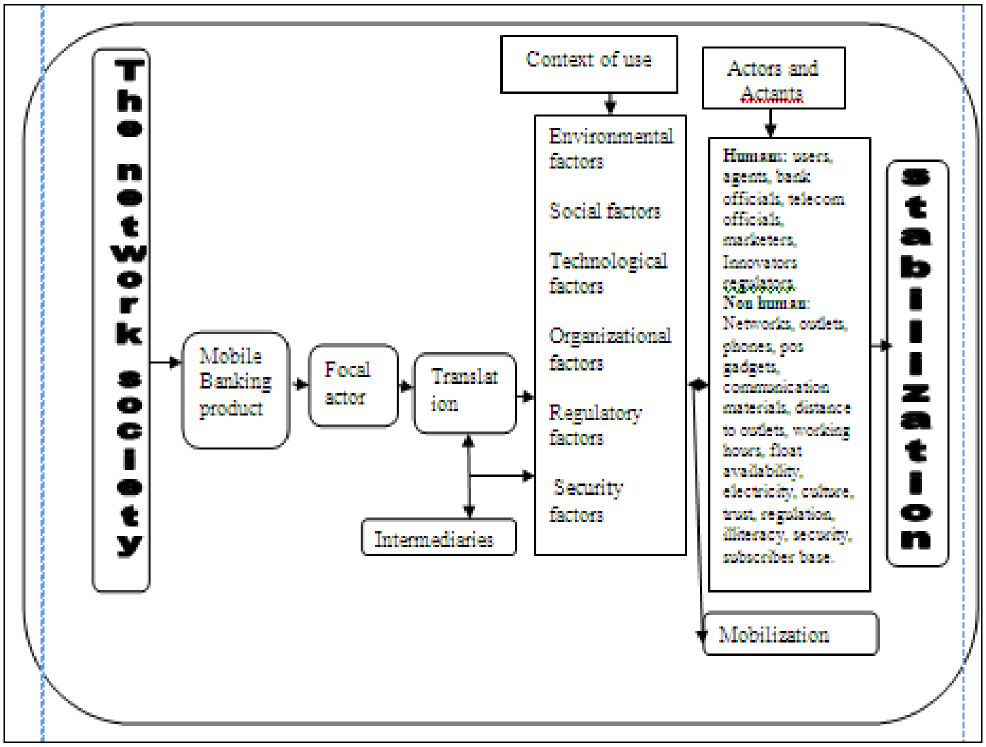

Figure 1: The Theoretical Framework

2.3.The 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. The success of mobile banking depends on six key elements: The people that perform the transactions, the nodes which may be the phones or points of intersection in the network, the way of doing business (mode of production), the conduits transporting information (the network, software and transmitters), time involved which increases trust and the places the nodes are found.

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.

2.3.1.The Focal Actor

For the mobile banking product to reach its target populations, there has to be an actor with the mandate of ensuring that the relevant partners are recruited and enrolled to participate in various ways to assist in the realization of the product execution.

2.3.2.Context Of Use

The actualization of mobile banking depends on many factors. These factors constitute any element that affects the execution of the product to address the financial inclusion of the target populations. The conceptualization of the context of use in mobile banking includes all surrounding factors that shape the trajectory of mobile banking: They constitute environmental, technological, social, organizational, regulatory, security among other factors.

2.3.3.Translation

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 problematiztion, interessment, enrolment and mobilization.

2.3.4.Actors

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.

2.3.5.Intermediaries

If translation does not result to converge, 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.

2.3.6.Stabilization

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 the norms of entrance. Stabilization following the theoretical framework 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.

3.Methodology

The case study method was used as it adopts both the qualitative and quantitative research designs (Cavaye (1996) and Doolin (1996). The researchers were interested in establishing whether the constructs suggested through the model were influencing factors in the stabilization of mobile banking networks.

The sampling of the study area was occasioned by the demographics as well as the nature of the study. The population of the sampled County constituted the second largest number of poor people in the country at 619, 148, and over 70% of the total population were poor (Kenya Bureau of Statistics, 2009) and apart from two considerably large markets which hosted three bank branches, over 40 markets lacked bank branches. The populations were underserved and therefore considered appropriate for the study. Data sources were purposive dictated by the ontology of following actual users. An agents list was obtained from participating banks while users were identified at the outlets. Besides the quantitative data collected to measure user experiences, responses were further triangulated with Focus Group Discussions with agents and users as well as in depth interviews with bank officials and regulators.

Data from the interviews and the questionnaire was analysed qualitatively and using the computer data analysis program SPSS respectively. An interpretation of the findings was done in respect to questions of the research tools with specific emphasis on those directly addressing the constructs of the research model.

4.Study Findings And Discussion

The study revealed that populations residing in rural areas and previously excluded from formal banking services were enjoying the services. Mobile devices were the main access devices, they were easy to use and most of the households owned at least one mobile phone. Maintenance costs were minimal as phones required charge which could be accessed from the shopping centers which had electricity as well as airtime for access of services. Besides the mobile phone agents also used Point of Service (POS) devices to swipe cards and proceed with transactions as needed. The POS was enabled through a SIM card from a mobile service provider of choice.

Network signals could be accessed from any point by the users or agents. As indicated earlier in the literature review, the flexibility attributes of ICTs allows the distribution of processing power in various contexts and applications. For this reason it did not matter where the user was geographically, the flexibility attributes allowed signals to penetrate any place any time. Since mobile transactions depended on information and communication flows, the service was accessible to those previously excluded due to infrastructural logistics of other modes of delivery hence mobile technology qualified as the perfect actor in ensuring that barriers of geography were conquered.

Habits revealed in this study confirmed that people could transact any time, they did not rely on regulations of banking hours , were able to decide how much to transact and to whom to transact as well as execute these procedures unaided via their own phones qualifying both freedom from rigid rules and exploration of personal potential . Gratifications associated with convenience and a promise of enjoyment of these freedoms (Anders, 2006) was a strong point for co-option of the users as the objectives were shared.

The strengths exhibited by mobile communication in reaching out to people in remote areas through signals and the capacity to incorporate information based services through the networks is a great leap towards closing up on the digital divide. Though the implementation process had just begun, there was hope that with interventions targeting use particularly by lower income segments, mainstream banking services would eventually be extended to these populations.

4.1.The Context Of Use In Mobile Banking

The ANT methodology adopted in this study allowed the researcher to follow the actors and examine inscriptions and effectively triangulate the mobile banking phenomena. The use of both animate and in animate actors was crucial in understanding the relationships that elicited a lasting relationship for sustainability of the products for the benefit of the target population. It is prudent at this point to recognize cultural, security, and political as well as economical factors as additional and influential contexts emerging from the use of mobile banking. Contextual factors influencing the stabilization of mobile banking products include:

4.1.1.Environmental Factors

Mobile banking as a product was not limited to geographies and could be offered in any place provided there was network coverage. This was evident from the actual use by residents of Makueni County, a remote area in Kenya where the study took place. The product was also not dependent on physical bank branches, electricity and road infrastructure or telephone lines. The services were effectively executed through wireless communication i.e. mobile phones and POSs devices used by the agents and the users to access the services and did not require any physical connectivity. People transacted in their locations and homes without leaving to other places.

4.1.2.Social Factors

As seen in the execution of services, people prefer independence in the transaction process, secrecy of the transaction process, one is able to deposit money in the phone and send it to whoever they want and pay their bills in discrete. These types of people also transact conveniently after work or early in the morning as services are not time specific besides once the money is in the account they can transact from anywhere and any time including at night. The gratification of this mode of transacting is better reiterated by an agent in the FGD when she says,

“I don’t have to embarrass myself going to the bank to deposit Ksh 500. These bank people, they look at you and start asking, “where do you work?’ yet I know when I keep the Ksh 500 in my pocket I will definitely use it for other things. I can now bank my Ksh 50 without anyone asking me anything, in fact most of us here bank at least Ksh 100 everyday and at the end of the month it is around Ksh 3000 which can pay school fees”.

As indicated earlier mobile banking operates in a new kind of space that brings actors together in time without contiguity of physical space, a space different from physical space yet connected to it. It doesn’t matter where the other user is located or where the database for the bank is (all banks headquarters are in Nairobi) so long as each actor is connected to the same network sharing the same flows, information based services will be shared in real time. This is evident from the fact that transactions are instantaneous with accounts updated in real time.

Though the study established provision of these services to populations in the area, agents recorded minimal profits in commission. Over 2/3 of the agents got less than Ksh 5,000/- a month. This pointed to the fact that users were not actively engaged in banking. Diffusion of mobile banking products particularly to the poor require an understanding of the particular social system targeted. In line with the thinking of Prahalad (2006) a new philosophy of product development and innovation that really reflects the realities of the poor populations is needed. Their financial literacy levels needed to be established so that education could be initiated. Cited further was the fact that some users were skeptical of the functionality of agents and assurance to these people needed to be promoted in order to create trust and encourage them to use services. The study particularly found out that there were specific days when the markets were very busy and people converged at the markets to either sell or buy products. These provided a good opportunity for awareness campaigns as well as establishing their source of income in order to serve them accordingly.

Some of the poor people also lacked basic identification documents required in KYC rules; others feared that their Identification document (ID) card was likely to get lost if they carried it all the time. Account opening required a copy of the ID, however getting a photocopy of an ID can be an impediment considering that many rural markets lack electricity and even if the electricity was available, there is no guarantee of photocopying services. Strategies befitting these people are crucial as this could be a factor leading to fewer customers. It is therefore necessary that the current rules be revised to allow as many people as possible to access these services in the rural areas.

Culture in the network society involved sharing and caring for one another. Peculiarities of the study population were the fact that people shared phones. Transacting was not limited to ownership of a phone but access to a phone. The assistants in shops sometimes used their own phones to assist clients who owned SIM cards and needed to transact. Phones were also charged at specific shops and shopkeepers could answer calls on behalf of the owners of the phones. Interestingly, the FGD with users established that opening and closing hours were flexible and clients could request for services outside of the stipulated working times. The assistants would oblige and serve these clients. The cultural inclination to sharing, helping and communal tendencies were heavily present in the use of mobile banking products in this area.

The cultural practices have significant implications on uptake and use. First the act of sharing promotes access of the services to people who would otherwise not participate in the use of the product. Secondly the flexible working hours not only serves as a way of increasing the number of transactions but also promotes goodwill which may go along way in protecting the agency from adversities like organized thefts. Thirdly people who may not be aware of the products may be borrowed a phone to transact and in the process the unregistered person may be curious to know what the transaction is all about. This could lead to new registrations and use of the products. Finally the sharing of phones, assistance in the shops and commitment to service of the community reinforces trust in the products and those offering them which is important if the poor have to adopt new practices.

4.1.3.Technological Factors

The study revealed that agents and users used mobile phones or POS to transact which proved adequate in providing access. However the devices came with use implications. The phones required network connection, airtime and charge to operate. The users needed to understand the operations menu in order to transact and be able to transact effectively. However the study established that there were a lot of system related failure of the transaction devices and in effect services were not efficient.

Services were network based and most of the respondents cited the network as ineffective slowing down uptake and use. Confirmation messages after transaction was the only evidence that a transaction had taken place. Most of the time these messages were not forthcoming. Some other times the systems were not functioning totally. Constant network failure could then sabotage the services permanently. This explains why all the respondents were frustrated by the network. While banks depend on MNOs entirely to provide these services, there is need for these key actors to strike an understanding. Sharing the same view Ramsamy (2008) in his study of 'Self Service Internet Services' he reported that successful translations depend on how faithful key actors are towards their alliances. As mobile banks negotiate with the MNOs for effective services through a reserved bandwidth, the same banks are busy launching money transfer services to compete with these MNOs. With the cat and mouse game, there cannot be an honest relationship and customers will continue to experience poor services.

A system based fraud was also cited by the key informants. According to Fico.com (2011) the increased risk is as a result of the fact that mobile devices lack the firewalls and other security measures that are found on computers. This makes the phone vulnerable to malicious software that tracks keystrokes and compromises sensitive personal information, usernames, and passwords. These vulnerabilities demand advanced analytics that monitor mobile device usage to detect fraud. These in the Kenyan landscape do not exist and users occasionally bear all the risk as banks and the MNOs have clauses which leave the risk to the user be it the customer or the agent and most of the times advise victims to seek police assistance which occasionally is futile.

The database available via the network provides a reconciliation for transactions within a certain period and is available round the clock. This is an attribute to mobile banking that cuts across the different stages of translation. First the real-time reconciliation service is a role that focal actors depend on as they problematise the functionality of the product. A real-time transaction is proof of a complete transaction as well as a reinforcement of trust in the services. Users check their balances and a confirmation of an increase or decrease in line with type of transaction is enough to build confidence in the service. As a result users will serve as ambassadors of the product through word of mouth (interessment) and confidence in the service will lead to continued use (enrolment).

The effect of the limited network coverage in Kenya (34%) of the land mass had a negative effect on actual use of products as not all areas were covered and sometimes users were unable to use their mobile phones in their localities. This was ironical considering that majority of the urban centres were adequately covered and had enough banks, it would have therefore been logical if these signals were adequate to facilitate wireless access in remote areas.

4.1.4.Organizational Factors

Organizations are key actors in the innovation of mobile banking products. The three cases in this study represent the organizations that are responsible for the innovations. The success of many mobile products is dependent on the translation power of the organization. The organizational factor in this study emerged to include two other related factors i.e. economical as well as political

Powerful organizations are able to scale products through a large customer base. A strong personality is able to convince crucial partners to become part of their network. Particularly the Kenyan regulation of mobile banking is said to be too stringent yet other countries have flexible models. A strong personality pushing the success of a product would be motivated enough to use their skills to restructure these regulations effectively. A strong brand name is also a factor as many business people would want to be associated with the results which mostly translate to good profit margins. If the organization has a say in the functions of the country in general, for example Safaricom in Kenya is the highest tax payer to the Government, this kind of power would be a factor in marshaling of political good will which is necessary if hurdles regulatory and otherwise are to be overcome.

To the disappointment of this study, none of the CEOs described in case A, B and C were actively involved in the negotiations that describe the current structure of the mobile banking products. What was evident was that agency departments were left to work with the rigid model crafted at the time of legalization of the banking model. No effort has been made beyond these structures to address the concerns emerging from use of the products. There is a disconnect between the needs of the people, the implementation process and the top decision makers who could alter the course mobile banking has taken in Kenya.

Further organizations studied were busy launching product after product, albeit with slightly similar alterations yet predecessor products continue to struggle in their takeoffs. For example what is the value and investment for Mobi-bank by KCB? Yet there is KCB Connect. It is better to empower one product and reinforce it in the minds of the users rather than to create new products by different names all the time yet significant features of the new products are already replicated in other products of the same company. This was the case with M-KESHO replicated in IKO PESA and KCB Mtaani and Mobi bank. The field of experience is crucial if messages are to be retained, without this field of experience messages are ignored (Miller, G. 1956). Firms should pay attention to their context and asses the business value of their innovation before proceeding to commit resources (Ramsamy, 2008).

Literature reviewed (World Bank 2010) as well as the bank officials was in agreement that although there was need to bank the poor and marginalized, the economic viability of these people did not justify the establishment of a bank branch in the locality. The new model proposed would therefore take the economic viability of the poor in rural areas as an aggregate by consolidating individual transactions into a considerable volume and in effect constitute viability. Consequently the cost of providing these services would go down considerably and act as an interessment strategy as individual agents; running other business lines would combine the agency business with their existing activities. The assistant in the agency would perform all the roles necessary in serving clients; roles played by different employees in the bank branches.

4.1.5.Regulatory Factors

Regulations governing agent banking in Kenya have elicited the greatest debate and concerns from all respondents. To the users the KYC rules are burdensome, being required to walk round all the time with the physical and original national ID is unfriendly considering that the acquisition of IDs in Kenya is a process, some Kenyans do not have this document or even it may get lost. This requirement is evident in agent shops as communication on the same is displayed in the shops.

The agents have also cried of the same stringent requirements, and have clearly indicated that one of the challenges they have is meeting the requirements. The guidelines also require agents to submit the same list of documents for every contract signed with each bank. So if an agent is a multi agent, the documents had to be submitted independently as indicated for each case. The cases also differ and some cases may require additional documentation. This documentation comes with a cost. For example the Certificate of good conduct only lasts six months and returns from the registrar takes years to be amended. The case to case vetting of agents impact negatively on the banks need to reach scale (Tarazi, 2010).

Another infamous regulation in agent banking as revealed from the study is the strict rules governing sub-agent recruitment. Agents are not allowed to recruit others to offer services on their behalf as the case by case Agent Due Diligence (ADD) eligibility is applied. To reach scale however this model is preferred because of the use of the agents' network of friends and relatives it is easier to scale to most parts of the country because it mainly adopts the snowball effect. While the Kenya (2010) regulation on agency banking does not allow subcontracting, in other countries where mobile banking is in offer regulators recognize the benefits and permit subcontracting, so long as the bank remains liable for the provision of financial services. For example, in Mexico, regulation enables third parties, including MNOs and retailers, to set up and manage agent networks for banks. In Pakistan, super-agents are responsible for managing and controlling subagents, with agreements between subordinates and super-agents drawn to resemble those between the super agent and the bank. In Brazil, recent regulations permit only one level of subcontracting. Closer home the M-PESA model is similar to the Pakistan model which allows for subcontracting where an agent known as the aggregator is allowed to recruit as many agents as they can as long as Safarciom audits the shop and it meets the standards.

A threat voiced by the banks is the exclusivity requirement, banks have no problem sharing shops with one another in fact some banks have programmed their POS to take any VISA card meaning that even customers from other banks can transact in the shops though not effective as CBK yet again has not legalized it. However they are crying foul of the leading mobile money transfer service provider Safaricom for having entered into exclusive contracts with its agents. This poses a great threat to financial inclusion considering that Safaricom currently has over 40,000 agents. Removing this large number of entrepreneurs from the equation of agent banking networks is close to killing the product as Safaricom has practically tied majority of the potential agents. Furthermore observation from the multi mobile money agents does not reveal any competition; in fact customers withdraw money from their accounts and send it through M-PESA. The Kenyan scenario is totally unique and usage of agent banking and money transfer services in clearly distinct. On the contrary to the motives behind exclusivity, whether to protect first movers or encourage innovation, availability of all mobile services in a one stop shop will increase the business volume for money transfer services and also be of convenience to the users.

Despite the feedback pointing to frustrations of junior officers in the field, we do not see the intervention of the key CEOs of the company. There has not been any forum either on media or reported to this study that any of the CEOs has tried to negotiate for a waiver of the exclusivity clause.

Agents in Kenya are only allowed to initiate registration of customers and submit the documentation to the bank for vetting. Depending on the weather also photographs taken are rejected ending up inconveniencing the customers who still have to travel to branches if they want to open accounts. FATF requires that financial service providers identify and verify customer identity using reliable, independent documentation. However in view of the negative implications on financial inclusion, the regulators should consider temporary exemptions to this requirement to enable the uptake and use of branchless banking products. Kenya should be informed by the context of use of the products and structure due diligence regulations equivalent to the risks involved.

In countries in Latin America such as in Peru, Colombia, Mexico, and Brazil banking agents routinely are allowed to verify customer identity (Tarazi, 2010). Our findings also indicate that over 2/3 of users transact less than Ksh 15,000 and the main transactions are deposits and withdrawals which carry low risk considering that agents finance their business. The need for stringent regulation currently enforced is unnecessary and agents should be allowed to open the low risk accounts like in the M-PESA model where assistants are also allowed to open accounts and transact for clients. Use of agents in performing CDD and account opening is critical in escalating demand for mobile banking the products.

4.1.6.Security Factors

The issue of security constantly appeared in the contextual use of agent banking, and its only be fitting to add it to the context of use of these products. Security of use is a special condition in mobile money. Starting from the stringent measures imposed on the agent bank guidelines and also by the International Financial Action Task Force (FATF) (FTFT, 2010). Notwithstanding the fact that these stringent procedures impede money laundering and financial terrorism the potential financial inclusion benefits could be significant.

Another security issue revealed by the study is the usage related insecurity. E-money is targeted by conmen who strategically defraud of unsuspecting and gullible customers their money. Though the agent banking guidelines demand that banks be liable to loses by agents, this is not actualized as the agents are required to insure the business yet most of the theft occurrences do not fall under any insurable bracket. Apparently also the safety requirement in the structure of agent banking is that the customer is on their own and the agents and banks are supposedly not investigating firms. Such theft is left in the hands of the Kenya police who more often than not do nothing. Considering that agent banking targets the rural poor it is only befitting that the organizations actively get involved in ensuring money lost through use of the service is recovered.

Theft also featured considerably throughout the various segments of respondents. Again unique about the product is that agents may not afford burglar proof structures to offer services from considering the kind of commission they get from the service. Most insurance firms do not provide insurance for such high risk cases leaving the agents helpless. Further the services do not generate enough income to sustain reasonable salaries for the employees tempting them to use the money allocated for service provision to take care of their personal needs.

4.2.ANT In Studying Context Of Use

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, representatives and co-option in the pursuit of individual and collective objectives are translated. 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.

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 mobile money innovations seek 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. The actual experience of the study does not record 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. It is more of a reaction to the success M-PESA has recorded. Experience surveys indicated that some of the banks did not care about what the agent got; their interest was the aggregate commission of all agents. These points to poor problematization which in effect contributes to the insignificant uptake recorded in the study.

As realized from the study, a 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. Through co-option of partners the agency bank network is able to align roles to actors with shared interests. 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. While this attributes exemplary interessment techniques to Safaricom, the cases at hand lack this commitment of owning the product to ensure that it works at whatever cost.

The exclusivity clause also makes Safaricom safeguard its profit margin as their well to do entrepreneurs are 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 snowball 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, they think ahead and plan their actions, the banks on the other hand do not seem to understand the mobile money field, and they lack even the basic mobilization skills, 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. If the reason for being co-opted is not realized, partners will pull out and the relationships disintegrate.

As banks cry foul, the mobile network operators' continue to enjoy enormous profits. Therefore the stronger the coordination of the circulation the more the different elements are aligned and the more stable and predictable it becomes. Instead of crying foul the 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 forgo the product for the agency business. Not now. 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 will begin to diverge and the setting will disintegrate. 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 have difficulties reaching a working agreement for the product.

What Safaricom and Equity do not realize is 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 (Law, J. 1992). 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 with M-KESHO. The 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.

4.3 Enrolment And Mobilization Strategies For Stabilization Of Mobile Banking Products

The foregoing discussion point to a disconnect between products availed and their ability to address financial needs of poor and marginalized populations as envisioned. This study proposes mobilization strategies for some of the identified barriers in the study.

4.3.1.Commitment Of Focal Actors

The ability of the focal actor to put together actors and create an ecosystem that fosters the relationship is crucial for stability of mobile banking products. Active leadership and deliberate efforts to align roles of recruiting actors to the interests of the common product help in reinforcing coexistence in the network. Effective implementation of mobile banking products is expensive, time consuming and a complex process because it targets country diffusion, sparse populations and of limited resources. The direct commitment of company top leadership to the success of the implementation process not only motivates other partners to continue playing roles as assigned but also creates trust in the product itself.

4.3.2.Targeting Poor And Marginalized Populations

Translation of mobile banking products is context specific. Although the product was availed in these places, the typical rural person had not taken up the products. A clear understanding of the needs of the people, contextual factors affecting the specific target population i.e. their economic status, infrastructural strengths and weaknesses of the study area as well as characteristics of the target population; education, habit or the culture of the people targeted and establishing their financial needs and how best they would like them addressed is crucial. Prior contextual studies are helpful in identifying the appropriate partners and strategizing on the translation process.

4.3.3.Exclusivity Rights To Safaricom

The greatest cry established was that Safaricom threatened their M-PESA agents with cancelation of contracts if they did not desist from offering services for the banks. However the scenario on the ground is different, bank customers are an advantage to the money transfer services; for what happens is that customers withdraw money from the bank accounts and send it to friends and relatives via the money transfer service. The banks should look for translation skills to convince the mobile network operator of this shared benefit.

Banks have found themselves in a predicament over the translation of the very crucial issue of numbers of agents for access of the service and numbers of users to create the business volume. While debate is rife on one hand argument favouring exclusivity and arguing that the lack of a level playing field is justified since banking agents can offer far more than the cash-in/ cash-out services of Safaricom, the counter argument on the other hand is that agents and financial inclusion considerations weigh against permitting this fuller array of services to be monopolized by one actor through the use of exclusive contracts.

Kenyan regulators, including those from the Central Bank and the Monopolies and Prices Commission, are struggling to develop a regulatory approach that promotes competition and financial inclusion, while simultaneously respecting the free market and providing incentives to first actors. However countries that have successfully translated the problem have permitted temporary agent exclusivity (Tarazi, 2011), particularly in the early stages of sector development, to provide banks with short-term incentives to invest in building agent networks, while enabling other providers to compete effectively in the long term in areas with few suitable agents.

4.3.4.Honesty In Relationships

There is however a worrying trend in the current mobile money spectrum in Kenya and this is straining the bank MNOs relationship further. There is an influx of mobile money transfer services being launched by both banks and other companies mainly to target the M-PESA money transfer service. Examples are: Nation hela, Mobi bank by KCB, Ezzy 247 by equity among others). There is a deliberate effort by these companies to target the fortune seen to accrue from M-PESA. Yet this study views this as a defeating strategy since these other actors rely entirely on MNOs network infrastructure to offer the services. Unless these other companies acquire a network license which does not come easy, they remain at the mercy of MNOs and while the status quo remains, MNOs will continue to price their services exorbitantly to muzzle any effort by these other companies to eat into their market share. At the end of it the extra cost will be borne by users who will try the alternative money transfer services.

Surprisingly these competitors are also in partnerships with M-PESA to provide money transfer services. So the question is why the dishonesty? Ramsamy (2008) in his study of the translation is clear on the fact that for any translation effort to be successful the faithfulness of the key actors to the process is imperative. There is need for the differentiation of services in the mobile banking industry. With clear cut mandates for both banks and MNOs in services offered, there could be fruitful negotiations on the tariffs imposed for connectivity by MNOs and revising these tariffs downwards would benefit the end users.

4.3.5.Non Exclusivity Clause For Banks

The non exclusivity clause in the 2010 agent banking act could be used to the advantage of the banks. Banks could negotiate to arrive at pricing and other terms by which other bank customers could use one point as a customer interface. Once an agent is signed by one bank this agent could be used by other banks to process transactions. This model is in use in Pakistan through the open architecture model where an agent serves multiple banks without separate contracts with each bank. Interoperability has also been suggested (World Bank, 2012) as it benefits operators by extending the pool of customers reducing incentives for many SIM cards as well as passing the benefits to agents who currently have to maintain the infrastructure of every bank they are signed to.

4.3.6.Agent Network Management (ANM)

The study has established that the agent network has credibility problems. It is important for the bank to subcontract the services of professional management firms to undertake agent supervision, training, promotion of products and also create awareness of the product. Moving from low agency accountability to greater agency accountability would work well where a small area is assigned a team to manage the implementation process and monitor operations on a day to day basis. They will also be able to reinforce regulation which may not be easy for sales representatives stationed at the head offices of these banks. With up to date feedback mechanism the banks will be able to strategize on how best to handle emerging issues of use.

4.3.7.Sub Agent Contracting

The Kenya 2010 guideline on agent banking explicitly provides that, 'an agent shall not subcontract another entity to carry out agent banking on its behalf'. In this arrangement the bank must bear the expense and hassle of signing separate agreements with every agent. The fact that the M-PESA sub agent sub contracting model has worked fairly well (M-PESA agent contract 2010), it should not be difficult to cite our own example and convince the regulator to allow the agent subcontracting as long as the bank is ultimately liable for financial services rendered. Where the bank is ultimately liable for agent actions the regulator should feel more comfortable in minimizing restrictions on agent eligibility and agent due diligence. The regulators should recognize the benefits of ANMs and permit subcontracting, so long as the bank remains liable for the provision of financial services.

4.3.8.Professionalism In Service Delivery

There should be occasional training of assistants and refresher seminars to ensure that they offer services at par with those at the bank branches. The KCB original model was elaborate, with suggestions to eventually remunerate the assistants at the same level with those with similar qualifications at the bank, as much as this was a noble idea, it may not have succeeded because assistants are entirely the employees of the agent and pay according to performance. However this study suggests that agents should incorporate welfare schemes that cushion the assistants at times of need. These could include benefits and Sacco's where they can access loans at reasonable rates.

4.3.9.Efficient Service To Customers

Cited mostly in the study were issues of float or cash and network failure. The two issues could discourage users from transacting at the agency shops and eventually reduce the trust in the new products. Mother Banks should initiate support financial services for agents to enable them serve customers efficiently. External regulation of tariffs on mobile banking should be enforced to ensure that punitive costs are not passed to the customer making the product costly. Focal actors should consider persuading MNOs to dedicate mobile banking transactions to specific bandwidths to reduce traffic which leads to unconfirmed transactions.

4.3.10.Enabling Regulation

The success of M-PESA was attributed to the gap in money transfer models, diffusion strategies, right regulation for reaching critical mass as well as the distribution channels (Ignacio Mas and Dan Radcliffe, 2010). Most of the success factors for M-PESA are missing in the cases studied. Besides the gap for financial inclusion glaring, the regulation impedes reaching scale by restricting subagent contracting and also advocating for stringent ADD and CDD procedures. The tariffs in agency banking are also higher than those at the bank's branches or ATMs. The roles should be translated before hand and necessary intermediaries exchanged to ensure that the product takes off with the 'I' curve and not the 'S' curve (Fredrik Borg and Martin Persson, 2009) as critical mass is crucial for the sustainability of the product.

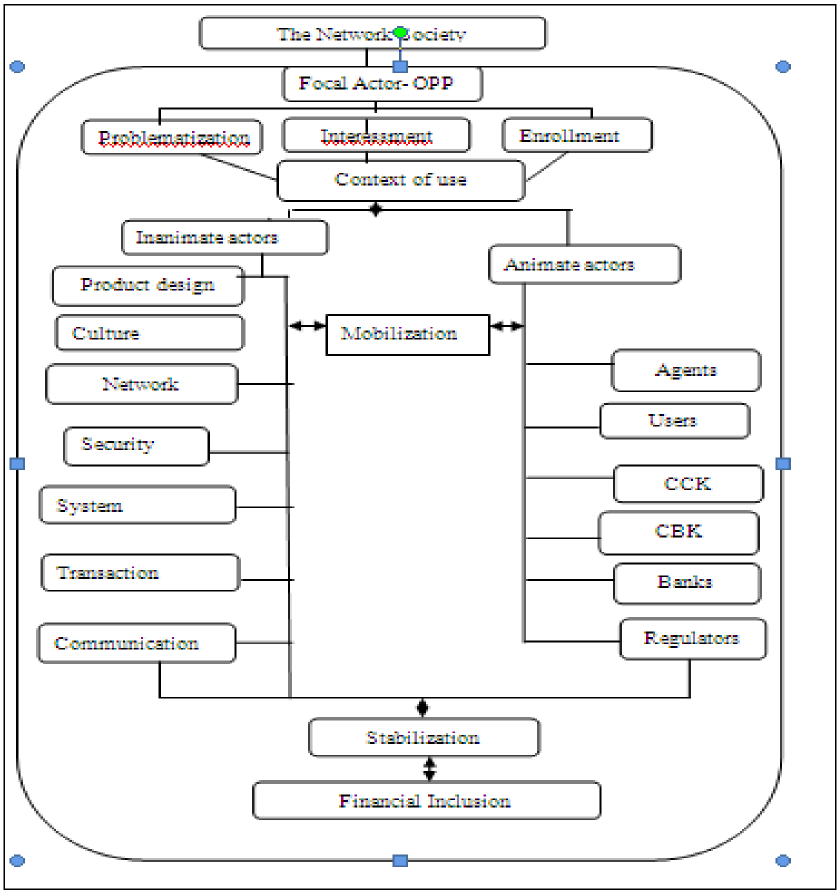

Figure 2: The Stabilization Trajectory Of Actors
Source: Study

5.Conclusion

The ANT model (Figure 2) 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.

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 and inanimate 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 get 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 it is 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.

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