Independent Final Report

Banking economy through the delivery of innovative financial services to rural areas in Mozambique

By

Zucula, Deolinda Roque (52115620)

August, 2017

Independent Final Report

Ritsumeikan Asia Pacific University

In Partial Fulfilment of the Requirements for the Degree of

Master of Business Administration –Innovation and Operations Management.

Table of Contents

Declaration

I declare on my honor that this independent report, which I hereby submit to Ritsumeikan Asia Pacific University, in fulfilment of the requirements for obtaining a Master's degree in the Graduate School of Management, has never been presented for any other academic degree, and is the result of my own research. I have indicated in the text and bibliography the sources I used.

Zucula, Deolinda Roque

Acknowledges

Throughout my academic career attending the Graduate School of Management, at Ritsumeikan Asia Pacific University (APU) I had the opportunity to make many friends, and meet people from all over the world. I had the support of countless people, who directly or indirectly, contributed to my training.

In this regard, I thank all colleagues, friends of APU, faculty members, especially my supervisor Prof. Yokoyama Kenji, for their moral support and dedication to my academic cause. I also thank the institutions that kindly provided me the data for the preparation of this work.

And finally, I thank the mentors of the ABE initiative project, JICA, for the unique and unforgettable opportunity granted to me.

Summary

The evolution of the banking of the economy in Mozambique is a process initiated in 2007 by the regulators and implementers of monetary policy in that country, with the objective of covering the entire national territory with access to financial services. According to the World Bank (2008), in developed countries debates are being held around the promotion of financial inclusion through the generalized utilization of modern financial products and services by the entire population and companies; thus, recognizing the contribution and role of the access and usage of financial services in stimulating productivity, reducing social differences and increasing community well-being.

The development of the banking economy in developing countries has been more challenging in rural areas, due to the many barriers facing operations management for financial institutions. These issues raised the following question:

- **To what extent innovation can help financial institutions on expanding their services to the rural areas?**

The purpose of this work is to verify innovation as a tool to leverage banking in the economy in Mozambique, to help expand financial services to rural areas and to verify their social impact on the rural community.

The methodology used to fulfil the objectives of the research was qualitative in nature. As a data collection instrument, semi-structured interviews were used,

and these were applied to the people responsible for this project in Mozambique (banking in the economy) to explore to the maximum extent possible their knowledge and perception in relation to the expansion of financial institutions, and the use of innovation as a key tool to help in this process. This type of technique (interview), gave the interviewees some freedom in their responses to the questions asked. According to the direction they considered appropriate within the context of the topic being analyzed, the most relevant aspects of the work could be explored in a flexible and in-depth way based on this technique.

List of Abbreviations

Initials	**Description**
AFS	Acess of Financial Services
ATM	Automatic Tele Machine
BM	Bank of Mozambique
FS	Financial Services
GDP	Growth developmet per capita
SIM	Subscriber Identity Module
US	United states

Chapter 1: Introduction

1. Introduction

This research addresses the expansion of financial institutions in rural areas and their impact on the local community. Our review cut is Mozambique, specifically the Central Bank of Mozambique. The study was based on the assumption that the greater the concentration of infrastructure in rural areas, the would be greater the concentration of financial services in these areas and the consequent positive impact of such services on the local community. On the other hand, it was assumed that a low concentration of financial services in rural areas is due to lower economic dynamism, and the high operating and investment costs for the installation and operation of financial services in rural areas in comparison with urban areas, which has a negative impact on the local community.

The study of the expansion of financial institutions in rural areas and their impact on the local community, that is, the role of banking in the economy, seems to be important, given that it contributes to matters related to the expansion of financial institutions. Since it is believed that any expansion in the access and use of financial institutions by a population will contribute to the acceleration of economic expansion and improvement of its well-being. The study of this theme opens the possibility to suggest modifications in the scope of the reality that surrounds the subject in analysis.

The expansion of financial services and products to a majority of the population is one of the objectives of the Mozambican government programs, as well as being in the strategic plan of the Bank of Mozambique. For this purpose, it is considered that the expansion of financial institutions, to a large extent, will guarantee this access, but these services must be relevant and meet their needs, for there to be permanent use of them. For this reason, the expansion of financial institutions is seen from the perspective of the use and access of financial services by a considerable number of the population in general, and in a specific way, the focus is on their extension into rural areas.

This work is structured in five chapters; the first chapter refers to the introductory part of the work, where the subject is contextualized, the research problem is formulated, the hypotheses and the objectives lay out, and the importance of the theme under study discussed. The second chapter presents the methodology used to carry out the work. The third chapter is dedicated to a review of the most recent scientific available papers that deal with the topic. Here is provided in detail the explanation of some of the concepts, characteristics and expansion of financial institutions in rural areas.

In the fourth chapter the data collected through interviews are presented and discussed, covering the impact of financial institutions in rural areas, and the use of innovative financial services as its main focus, as well the possibility of using innovation as a technique to help in the process of expanding financial services. Finally, the fifth chapter deals with the conclusion and recommendations related to the most relevant aspects of the expansion of financial services in rural areas.

1.1.Research Question

In Mozambique, the expansion of financial institutions generally passes through the guarantee of access and use of financial services by the population, which must be relevant and meet their needs. The Banking economy is the process that aims to expand financial institutions to guarantee access and use of financial services for the general population, while innovation is the process of bring something new in a product or service, but also something new and valuable or workable that will be useful to facilitate community life.

In general innovation in terms of services is linked to customer satisfaction. When an organization feels the need to develop or innovate their services they do it through the results of research on customer needs.The banking economy in the developing countries has been more challenged in rural due to the many barriers of operations management for financial institutions in these areas. According to a World Bank report (2012), some incentives and measures have been taken in rural areas in all developing countries to make a room for the required changes to judicial-legal and institutional frameworks that will enhance the entrance of new financial institutions, as well as the expansion of their activities in rural areas. However, despite the various incentives and measures, most of the access points for financial services are not yet being expanded in the rural areas. In developed countries, debates are being held around the promotion of financial inclusion through the generalized utilization of the financial products and services by the entire population and companies, thus recognizing the contribution and the role of the access and usage of financial services stimulating productivity, reducing social differences and increasing community well-being.

Taking into account the above, the issue of these investigations emerges, since on the one hand, there are judicial-legal and institutional measures for the expansion of the financial institutions to the rural areas, and on the other, the concentration of such institutions continues to be centralized in urban areas. And nowadays, having innovation as the key for the present and future to develop some developing countries, the process of banking economy Facing these issues gives rise to the following question:

- **To what extent can innovation help financial institutions with the expansion of their services to rural areas?**

In this context, this paper discusses the process of the development of the banking economy through innovation to leverage the access of financial services in rural areas. This discussion of the impact on the banking economy through innovation in financial services is crucial, as mentioned above.

1.2. Hypothesis

In this paper, we make the following four assertions:

- Innovation is a technique that can be used to improve financial services and leverage the process of the development of the banking economy;

- The development of the banking economy is not dependent on the innovation of financial services;

- The higher the concentration of infrastructure in rural areas is, the greater the concentration of innovation will be, and the higher the consequent positive impact of financial services to the local community will be;

- The low concentration of financial services in rural areas is linked to lower economic dynamism, high operating and investment costs for the installation and operation of financial services that rural areas offer in relation to urban areas, and results in a negative impact in the local community.

1.3. Importance of the Study

This study is of importance because in some developing countries there is still a lack of financial services in rural areas compared with urban areas. These services are centralized in urban areas of the country, therefore, rural areas have an unattractive picture as investment locations, although they have large productive capacities for economic development; hence the need for the existence of financial services in these areas to accelerate the development of these areas and consequently the country.

The importance of the subject also lies in the fact that it can make a further contribution in matters related to banking in the economy or the expansion of financial institutions, because it is believed that this expansion will allow the access and use of financial institutions for a considerable number of the population, and may contribute to the expansion and acceleration of the economy, improving people's well-being.

1.4.Objectives

Main objective

- Identify innovation as a technique to leverage the expansion of financial services to rural areas.

Detailed objectives

- Describe the implementation strategies of financial services innovation;
- Describe the types of innovative financial services that could be implemented in rural areas;
- Identify financial services expansion challenges;
- Stress the importance of financial inclusion;
- Understand financial services expansion constraints and favorable arguments for this; and
- Verify the expansion of financial institutions to the rural areas and their social impact.

Chapter 2: Methodology

2. Research

This study used an exploratory research approach designed to seek to improve ideas and guide a flexible plan of action involving literature and secondary sources, which is basically qualitative. The literature was developed from already prepared material, consisting mainly of books and scientific articles. The advantage of a literature-based approach lies in its ability to enable the researcher to cover a range of phenomena much wider than that which they could directly research (Gil, 2008).

By opting for the literature-based approach the intention was to do a literature review that directly or indirectly deals with the subject in question, which essentially consists in collecting and reading documents on the reality studied and obtaining further analysis of the content through interviews. It is believed that this procedure is not as limiting as that solely involving what can be collected in interviews. The researcher can interview quickly, can apply questionnaires, can investigate different issues at different times; using both documentary sources and statistical data, so there is interdependence between quantifiable data and qualitative data. This type of procedure wins by offering a description, explanation and understanding of the object under examination (Goldenberg, 2004, 61).

This aspect was covered by contact with those who are responsible for the project of extending the banking economy in Mozambique. The choice of this type of research is justified, although qualitative literature research methods have obvious limitations, particularly given the impossibility of generalizing their results. However, although this deprives them of the quality of statistical coverage, they can win in analytical depth because of intensive contact plus being at the same time open to social actors through the literature studied (Quivy & Campenhoudt, 1998, 42).

2.1. Methods and Data Collection Techniques

This study used a monographic method that assumed that an in-depth case study can be considered representative of many more or even all similar cases. These cases can be individuals, institutions, groups, communities, and so on. In this study, the particular case was an institution. For actual data collection, a semi-structured interview by email and web-conference was applied because it is understood that the semi-structured interview is not fully open or enhanced by a large number of questions, and gives the possibility of the collection of data over time involving relatively little expense (Gil, 2008).

The video conference constitutes a new way of communication, that allows a group of people (in districts, cities or distant countries) to carry out activities such as meetings, courses, debates or lectures without leaving their respective physical spaces. That is, video conferencing is a form of interactive communication that allows two or more people, geographically separated, to communicate in real time through audio and video. In addition, it is possible to examine documents at the same time, view slides, play a multimedia presentation, draw on a board, and other activities - all with the help of the video conferencing system. (Mill et al., 2007).

A video conference, when performed over the Internet, is called a web-conference. There are video conferencing systems with different dimensions and functionalities. Some may be employed by large corporations, others by medium or small businesses, others by small groups and even others by two people. The basic principle that endures in any kind of virtual conference is the spatial distribution of the interlocutors - they do not need to be spatially concentrated in the same space.

2.2. Population and Sample

A semi-structured interview was applied to those responsible of the banking economy project in Mozambique, to fully exploit their knowledge and perception of the expansion of financial services in rural areas. According to Gil (2008), in general, social surveys cover a universe of elements so great that it becomes impossible to consider them in its entirety. For this reason, the research is very often working with a sample that is a small part of the elements that make up the universe. Thus, according to Richardson (1999, 36), it is considered that a random sample is a subset of the population formed by elements that can be obtained, but does not guarantee that an exhaustive sample of all possible subsets of the universe is covered. Furthermore, sampling accessibility or convenience (Gil, 2008, 94) means that the researcher selects the elements that are accessible, assuming that they can somehow represent the universe. Generally, the choice of this type of sampling for this research is justified by the fact that respondents value the criteria of ease of access to them, in giving information necessary for the study.

Chapter 3: Literature Review

3. Access to financial services and their determinants

Campbell (2006) notes that the analysis of household finances is challenging because their behavior is difficult to measure. In addition, families have constraints that are rarely captured and revealed by financial models, but which are relevant and important to analyze, given their importance in the financial system, and consequently to the economy. It should be noted that access to financial services (AFS) by households is not synonymous with their use.

According to Claessens (2006), while access refers to the availability of good quality and low cost financial services, use corresponds to the current consumption of services. Claessens (2006) presents the difference between access and use of financial services in two perspectives (demand and supply curves). Thus, access refers to supply, while use is the intercession of supply and demand curves. In this perspective, the balance depends on the relationship between the costs incurred by institutions and household income. If the cost of financial services is high households will not use financial services. Thus, an agent may have access to financial services but not exercise their right of use because such services are incompatible with income or financial situation, but also may have no access to such services. So, there are several studies that attempt to explain the relationship between access and various economic indicators, such as per capita GDP growth rates, corporate productivity and poverty (Beck et al., 2000), Demirguc-Kunt and Maksimovic (1998), Beck et al., (2005), and Klapper et al., (2006)), claims that few studies has been done about the determinants of AFS.

The main reason that there are few studies on AFS is the difficulty in collecting data. Of the few studies that exist, there are those that derive data only from the supply side, and therefore offer only one side of the question, as is the case with the number of bank accounts used by clients (Hanohan, 2008). At the same time, there are studies that emphasize only the demand side, and present information on the financial system from surveys in the framework of the Life Standard Measurement System.

However, these studies ignore aspects such as: the motivations that determine the use of services by families, and the influence that an individual decision exerts when compared with that of the family in general (Lundberg and Pollak, 1996; Scott and Cull, 2010). According to Claessens (2006), although the use of these sources in many cases is difficult to compare, the data produced show a considerable variation in the level of access between countries, and in many developing countries many families do not have AFS and, as an alternative, they resort to non-financial and informal institutions, even to aggie actions.

The reduced size of the economies of the developing countries, together with the poverty levels that characterize them, often leads financial authorities to invest in microfinance institutions, which do not require large investments in their operation, and generate high rates of return (Karlan and Morduch, 2009; Aghion and Morduch, 2005; Honohan, 2004; Robinson, 2001). However, Hanson et al. (2003) note the household surveys coordinated by the World Bank that study household standard of living measures. Such institutions are not considered to be beneficial to final customers since, in many cases; they do not achieve the desired efficiency in the provision of financial services because they involve high costs. This argument is reinforced by Hanohan (2008), who considers that the impact of microfinance on poverty reduction is inconclusive, since its evaluation should take into account the effects of population displacement and the indigenization of financial access itself.

Average income, schooling, institutional environment, geographic location and age distribution are socioeconomic factors identified as the determinants of AFS in many countries, particularly in developing countries. For example, Beck et al. (2005) point out that the institutional environment is the most important one because developed and efficient financial systems lead to the extension of the AFS. Many of the few existing studies seek to explore only the effects of socioeconomic factors on AFS. However, there are some studies (Claessens, 2006; King and Hanohan, 2009) that indicate that behavioral factors such as convenience, confidence in institutions and risk aversion also influence AFS. There are authors who seek to explore the effects of behavioral factors such as overconfidence, altruism, expectations and optimism about participation in financial markets, but these studies apply more to developed countries' financial markets. These behavioral factors are of great importance in explaining decisions to participate in financial markets, investment strategies and the choice of different types of financial instruments. According to Shefrin (2009), neoclassical finance respects the principle of investor preferences, respects the axioms of expected utility theory, according to which expectations are formed based on the probability or possibility of beliefs. According to the same author, this suggests the presence of systematic errors in decision making that lead to beliefs manifested in phenomena such as trust, altruism, expectations, optimism, and overconfidence, among others. Overconfidence and altruism are assumed to be the situation where investors underestimate the risk, eventually exaggerating the extent of their knowledge to the portfolio of investments they intend to acquire (Odean, 1998). Guiso et al. (2008) consider trust as describing the possibility that individuals believe other agents may perform particular actions.

Such subjective probabilities can be influenced by the social and cultural environment in which individuals exist. For example, level of schooling, religion, can explain differences in confidence levels among individuals, regions, and countries (Guiso et al., 2003, 2004). Puri and Robinson (2007) claim optimism is found in the belief that individuals assume about future economic conditions. This belief can be viewed in a moderate or excessive way. In the first case, individuals are connoted with prudent financial choices and habits. On the contrary, individuals who exhibit excessive optimism ignore basic measures on saving in financial markets. Finally, Scheier and Carver (1985) and Scheier et al. (1994) affirm optimism as generalized expectations about future events; suggesting that optimism and expectations are behaviors that cannot be dissociated. In this study, the importance of these factors (altruism, expectations, optimism and overconfidence) is analyzed for a country with an emerging financial system such as the Mozambican financial system.

3.1. Delimiting the Financial Inclusion Concept / Expansion

Financial inclusion has been discussed by several international organizations but despite the growing interest in financial inclusion, there is still no consensus as to its definition and scope. There are several approaches to the definition of financial inclusion, since banking the non-banked, to the use of mobile phones to access financial services, but refers to "full financial inclusion is a state in which all people can use quality financial services have access to them, and are provided the most convenient and affordable, including low-income people and those living in rural areas"(Gardeva and Rhyne, 2011).

According to a World Bank report (2008), financial inclusion corresponds to "access to financial services", which implies the absence of obstacles or barriers in the use of financial services. This institution clarifies the concept of "access" as the "possibility of using" differentiating it from the concept of "use" that corresponds to the "effective enjoyment of financial services." Accordingly, the lack of use of financial services may result in both the voluntary exclusion (opt-out) as the involuntary exclusion.

In this sense, another way to analyze financial inclusion is to acknowledge that financial exclusion is derived from constraints on either the supply side or the demand side of financial services. On the supply side, the focus of this study, the main constraint is related to the costs of providing financial services, and the proximity of the service to the end user. In addition to the fixed costs, contributions to this constraint are market size, per capita income and its distribution, the quality of transport and communications infrastructure, and available technologies, particularly information systems, macroeconomic policies among other aspects (Guerrero et al., 2012).

According to Guerrero et al. (2012), other factors that limit the expansion of the supply of services and financial products in developing economies in general are: the high risks involved in certain operations (for example, loans to the informal sector operators associated with the difficulty of execution of guarantees and risk coverage), and the most stringent regulatory aspects (such as minimum capital requirements, the prevention of money laundering and the financing of terrorism), related mainly to the international financial crisis.

Financial exclusion is a "manifestation of social exclusion of certain social groups such as the poorest." Accordingly, financial inclusion is defined as "the process that ensures easy access, availability and use of the formal financial system for all members of the economy." This definition incorporates in its concept three dimensions of financial inclusion in particular, the accessibility, availability and use of the financial system (Sarma, 2008). The important role of an inclusive financial system is to facilitate the efficient allocation of productive resources, to contribute to the improvements in daily financial management, to reduce the use of informal means of lending, and to promote safe and efficient practices in service delivery financial (Sarma, 2010).

Taking into account the scope defined by international institutions, different countries and researchers have presented their own approaches to financial inclusion. Given that this depends on the stage of development, the degree of financial inclusion and the needs of services by the population may vary (Mehrotra et al., 2009). For the definition of financial inclusion, most countries are adopting the dimensions of access and use. The definition of size also varies from country to country or to search for research, according to the availability of information and literature developments. From the definitions presented, one can infer that financial inclusion is a broad concept that links several additional elements, such as: (i) a favorable regulatory environment; (ii) an offer of suitable products (payments, savings, loans, etc.), (iii) coverage through traditional channels and not traditional to provide quality financial services at reasonable prices, allowing safely and efficiently transactions; (iv) promotion and dissemination of education and financial literacy; (v) transparency and clarity in the information; and (vi) protection of the users of financial services (Guerrero et al., 2012).

In the specific case of Mozambique, increasing the scope of financial inclusion is gained largely by ensuring access to financial services by the population in general, and these should be relevant and meet their needs for the continued use of these services. And yet according to what is enshrined in the Financial Sector Development Strategy, financial inclusion is the "act of making affordable financial services to a large number of people, particularly the poor" (Bank of Mozambique, 2012). In this context, for the purpose of this work, aspects relating to inclusion versus exclusion, financial inclusion means expansion on the supply side, given the use and access issues with regard to financial institutions for a number of people, are taken into account.

3.2. Legal Aspects of the Expansion of Financial Services in Mozambique

The analyses and debates around this theme have been attracting interest for some time, not only internationally but also in the Mozambican context. The debate revolves around the expansion of financial services and products to a majority of the population (Bank of Mozambique, 2013). Since national independence in Mozambique, concerns about the expansion of financial services to more geographical areas have always been present. The strategy initially followed was the implementation of savings funding stations by the Development Bank. However, many bank accounts were closed in many districts of the country due to the effects of war, which partly contributed to restricting the availability of financial services to the main urban centers (Bank of Mozambique, 2013).

This situation began to reverse in the early 1990s, first, with the approval of Law 28/91, in December 31, which opened space for the entry into the financial sector of domestic and foreign private operators, following the reform of the financial system started in 1987 in the context of the Economic Rehabilitation Program. With the end of the war in 1992, when the country began to witness the resurgence of initiatives by banks to extend the physical presence of their counters to more points. In this context, the number and types of institutions operating in the country increased.

The expansion of financial services throughout the country, according to Decree 47/98 approved on 22 September, which regulated the exercise of credit functions by natural or legal persons in the microfinance segment, boosted the functioning of the financial system in the country, and resulted in the emergence not only of new institutions but also of new services and products, which in turn led to a revision of the legislation applicable to financial intermediaries (with the approval of Law 15/99 of 1 November).

The revision of the legislation then in force allowed the introduction of new classifications and typologies of the financial institutions allowed to operate in Mozambique, which in part contributed to the greater dynamism registered in the sector in the following years. These changes allowed for a total of ten (10) commercial banks, one investment bank, one (1) microfinance bank and four (4) credit cooperatives (Bank of Mozambique, 2013).

Still within the dynamism demonstrated by the financial sector and efforts to expand services to the less favored areas of the country, the legislation regulating the activity of credit institutions and financial companies was updated five years later. The approval of Law 9/2004, of 1 June opened space for entry into the sector of new operators and types of institutions, especially electronic money institutions and micro banks. The activities of micro banks, credit unions, savings and loan organizations, microcredit operators and deposit takers are governed by Decree No. 57/2004 of 10 December. As a result of these legal and legal reforms, coupled with the adequacy of microfinance operators under the new legislation, new institutions were put into operation, causing the national financial system to have a greater diversity of institutions by the end of 2012.

In addition, the Bank of Mozambique (2013) has implemented a set of measures aimed at promoting the territorial expansion of banking branches across the country, thus ensuring greater access to financial services for the majority of the population. As a way of overcoming one of the constraints presented by potential users of the financial system, especially in rural areas, the range of documents allowed for the opening and movement of bank accounts was expanded (Decree nº 1/2006, of 28 February).

In this way, the expansion of financial services and products at the country level is one of the main objectives of the Government's strategic documents; highlighting the strategies: (i) for Rural Development (2007); (ii) Rural Finance (2011); (Iii) Development of the Financial Sector; (iv) the launch of the National Savings Promotion Campaign; and (v) the Bank of Mozambique Strategic Plan. The Rural Development Strategy (RDS) establishes among its strategic objectives the improvement of competitiveness, productivity, and accumulation of rural wealth. To achieve this specific objective, the following specific priorities were identified: (i) increases in bank and financial coverage; and (ii) the expansion of banking and financial activities to rural areas.

In this area, the Bank of Mozambique instituted in 2007 for a period of 5 (five) years an incentive scheme aimed at promoting the extension of financial services to rural areas. In 2009, it established a system of commissions and other charges that aimed to guarantee the provision of free minimum banking services as a complementary measure to ensure broadening access to and use of banking services and products, particularly by the low income rural population (Bank of Mozambique, 2013)

3.3.Expansion of Financial Services in Mozambique

It is essential to understand of how the "rural" zone is conceptualized to better understand this theme. The rural zone is defined as opposed to the urban zone, as regions not classified as urban zone or zone of urban expansion, or not able to be urbanized, or destined to have limited urban growth, or remain used for agricultural activities, agro-industrial, silvicultural and environmental conservation. Although these areas have traditionally been primarily used for agriculture or livestock, large areas can now be protected by a conservation area (of flora, fauna or other natural resources), indigenous lands, and have other economic importance, for example through tourism or ecotourism.

The importance of financial services in boosting economic activity is unquestionable in these areas. The promotion of saving habits has the potential to increase the volume of resources available for investment, with an impact on increased economic activity, job creation, added value and economic and social well-being. In developing African economies, such as Mozambique, broader participation of financial markets in production, labor relations, and investment has received more attention from regulators and economic agents in general (Amarcy & Massingue 2009, 185).

The Bank of Mozambique (BM) launched in 2007 a strategy of banking the economy to reduce and better control inflation and the stability of the financial system, and its ultimate goal is to bring financial services to the most deprived areas of the country, thus guaranteeing FS access to a large part of the population of Mozambique, and at the same time creating conditions to stimulate savings and investment. The fundamental problems that this strategy raises are the territorial expansion of financial products and services, the increase of financial depth and the valorization of the metical as a means of exchange (meticalization). This position is in line with the current political discourse of the Mozambican Government, which addresses the need for the financial system to expand territorially to cover more areas of the national territory (Amarcy & Massingue, 2009).

3.3.1. Constraints to the Expansion of Financial Services

According to Patel. et. al (2007, 18), to obtain a more complete picture on the issue of coverage of rural areas by financial services, the Mozambican bank asked the commercial banks for a detailed description of the main constraints on the extension of financial services to rural areas, aspects of physical presence and proposed solutions. The constraints on the presence of SFs in rural areas, as pointed out by the commercial banks in their responses were:

I. The lack of infrastructure, (including roads, telecommunications network - ie telephone, fax, internet, e-mail, and electricity);

Ii. High operating and investment costs required for the installation and operation of branches;

Iii. Costs arising from monetary policy;

Iv. Rural economy of reduced size;

V. Inefficiency of the compensation system;

Vi. Lack of branches of the Mozambican bank; and

Vii. Local labor without the required skills profile.

3.3.2. Arguments for Expansion of Financial Services

According to Patel et al. (2007), the arguments that support the necessity for the expansion of financial intermediation in rural areas are vast, emphasizing the economic program of the Government that advocates, as the main vector for the fight against absolute poverty, sustainable economic growth. The extension of financial services to places where they are scarce, or nonexistent, is one of the priorities of the Government's program to make districts poles of development. Among the measures underway, the following stand out:

- Public investment to rehabilitate, modernize and expand the infrastructure network, particularly in the fields of roads, telecommunications and energy, with a view to promoting greater territorial integration and reducing the cost of doing business, including financial intermediation;
- The provision of financial resources districts to carry out local initiative programs, together with the allocation of middle and senior level staff;
- The Rural Finance Support Program, launched in September 2005, with the mission of encouraging the expansion of microfinance institutions to rural areas, to help create conditions for rural entrepreneurs, both small and small farmers Industrialists

and traders have access to financial resources for the development of their businesses, thus contributing to the reduction of absolute poverty;

- Preparation of the National Savings Promotion Campaign, an instrument to raise awareness among the different actors in the financial savings process, from potential savers (especially in rural areas) to financial institutions themselves, to the need to monetize savings and their financial intermediaries. The program also includes a debate on the role of the various development funds in the country, in financial intermediation;
- The creation of a single central bank at SADC level by the end of the second decade of the new millennium and later by an African central bank will be the culmination of the process of integration of the African economies. This requires the sophistication of means and payment systems, which necessarily involves the modernization of financial institutions and their expansion throughout the national territory, under the risk that the institutions of other member countries of the region will call themselves this task, occupying market segments which are not currently covered by the national financial services network. Mozambican society's increasingly strong appeal for financial institutions to settle in rural areas where the majority of the population lives, so as to boost savings and finance investment and consumption, catalysts for development towards elimination of absolute poverty in Mozambique. This is also due to the importance that society attaches to financial intermediation and the hopes that it places on it, as part of minimizing the constraints to its better participation in the process of economic development and eradication of poverty in the country.

3.4.Financial Intermediation

The process of financial intermediation is found in institutions or entities that provide financial services. According to Mishkin (1998, 22), financial intermediation is the main way to move funds from lenders to borrowers. Other authors such as Fernando et. al (2007), suggest that the process of financial intermediation consists in channelling resources from savers to investors. Through this process, economic agents with productive investment opportunities (investors) obtain the necessary funds to carry out their investment plans. According to Lopes & Rossetti (1993, 296), some of the basic assumptions for the existence of financial intermediation are: the existence of money as a demonstration of maturity and development of the economic system, the existence of deficit agents and surpluses willing to incur risks and the costs involved, and finally the institutional existence of financial intermediation operators.

In summary, the financial intermediation activity is usually carried out by financial institutions, that is, financial intermediation operators that collect funds from the surplus economic agents, thereby assuming the obligation to honor the enforceability of these resources and lending them to Economic operators.

3.5.Functions of Commercial Banks

Over the years banking has played a relevant and even indispensable role in the functioning of any economy. In fact, some of the economic agents are over-reliant and unwilling or do not know how to apply them, whereas others, lacking sufficient financial resources, are motivated to carry out certain applications in the area of treasury operations, or in the area of investment, obviously incurring the associated risks (Caiado, 32).

According to Fernando et. al (2007), a bank is a financial intermediary that receives deposits from the public and makes loans. This is a special IF, since, by raising funds in the form of demand deposits, banks have a unique category of liabilities, which functions as a means of payment.

A bank is a wholesale firm that buys financial assets issued by borrowers (ie borrows) and resells them to lenders (ie deposits), a special function of banks is to transform financial assets. Banks are not, therefore, merely a warehouse between borrowers and depositors. They combine the needs of investors with the (savings) desires of the savers, transforming liquid and longer-maturity assets (loans) into liquid and short-lived assets (deposits) so they are known as maturity transformers (Fernando et al., 2007, 65).

A commercial bank is a financial intermediary that lives on financial intermediation, that is, from the provision of credit and the provision of financial services, generating interest and commissions that are charged for these services, the bank pays the savers a remuneration for the financial resources invested In savings, securities or investment funds, this money or financial resource is present to the power of the spenders through loans and financing, whose interest rate covers the cost of resources taken by the bank, the savers, that is, Remuneration of savings, securities or investment fund, other bank expenses and the bank's profit, called spread.

3.6.The Role of Financial Intermediaries

A financial intermediary plays an important role, as it is the link between lenders and borrowers. For Mishkin (1998, 22), a financial intermediary is between the lender-savers and the borrower-spenders. In addition to helping to transfer funds from one to another, a financial intermediary does this by borrowing funds to make borrower-spender loans. For example, a bank could acquire funds by issuing a liability to the public in the form of savings deposits. He could then use the funds to acquire an asset by borrowing for General Motors (GM) or by buying a GM debt bond in the financial market. The end result is that the funds will have been transferred from the public (lenders-savers) to GM (taker-spenders) with the help of the intermediary (the bank).

A financial intermediary (FI) unites savers (financiers) and investors (borrowers), facilitating the realization of productive investment in a capitalist economy. A financial intermediary is, therefore, a firm that produces financial intermediation services between bidders and resource claimants. FIs, based on the deposits provided by the surplus units, acquire primary bonds from loss-making units and, on the other hand, provide credit to loss-making units. Without financial intermediaries there would be a reduction of aggregate investment, since certain productive investment plans would not be realized, and certain investors would not be able to raise the necessary funds, despite the existence of savers willing to finance their projects. This is because, in the absence of perfect information, savers cannot identify all investment opportunities, just as investors are unable to identify all the financing opportunities. Thus, FIs contribute to a more efficient allocation of resources, boosting economic growth.

In short, a sound financial system is fundamental to economic development.

3.7. Innovation in financial services for low-income population

Usually people who live in rural areas, especially in developing countries, are considered as people with low income. The context of innovation in rural areas or in low income populations, according to the second forum of the Brazil Central Bank, there are three dimensions of innovation in financial services:

- Technology;
- Market; and
- Regulation

The three dimensions have different characteristics:

- Influencers;
- Limiters; and
- Inviabilizators

In terms of scale or dimension, the technology has as booster any new technologies that enable the creation of new channels, new possibilities, or new services such as Internet banking and mobile banking. And as limiters, issues related to technologies entail restrictions on financial services based on technology such as interoperability, security, privacy, etc.

In terms of the size of the market, the driven trends such as cocooning, time valuation and search for convenience encourage Internet Banking, and mobility, transience and ubiquity encourage future mobile banking. As limitations on the size of the market, we find consumer behaviour that prevents the adoption of some financial services "very innovative", such as electronic money (credit cards take decades to be fully accepted).

In terms of regulation for the provision of microfinance services; incisive action of the Central Bank to the correction of inefficiencies in the credit card market, limits the impracticality of mobile banking without banks or financial institution accountability in the field of telecommunication services companies. These dimensions have a recursive action and influence each other, for example, new technologies create new markets, new market demands stimulate new technologies, and new regulations open up opportunities for new markets and new technologies.

The Market Dimension can find determinants of the need for financial services, social interest and access to digital technologies "successful", with the power of direction to change processes and possibly also in the organizational structures (agents), plus the cost reduction implications of new models of charging, scalability, processing facility and convenience to customers.

In the Technology Dimension determinants are increasing telecom density (fixed and mobile) for cases of mobile banking services, enabling correspondent banking, mobile financial services and mobile digital inclusion. The accelerated pace is however closely associated with relatively high costs. With processes and telecommunications agents that may enhance or facilitate financial services, and the implications are smaller.

In Regulation, determinants have operations generated by social interest, focusing on pioneering initiatives (which must use the existing legal framework), use the technology available to ensure the adequacy of processes and agents involved in the value chain of these services. Therefore, for the innovation of financial services for the population of low-income, i.e. to rural areas, there is a need for pioneering initiatives; trading needs and definition of the (new) role of economic agents in the financial services value chain for this audience, including the relevance of convergent public regulation for the promotion of these services (authorization of new agents, defining a new type of simplified financial account, telecommunications domain, and so on).

3.7.1 Innovation in financial services institutions

Because of the great diversity in the service sector, it is often necessary to limit the type of service that will be studied because the differences related to products offered, technologies employed, resources involved, competitive market, customer negotiation power and other factors are fundamental to define the specificities of the innovation process within a company.

Among the most important, critical and innovative services, we can mention the financial sector, which is composed of institutions that are responsible for the capture, intermediation and application of financial resources in the economy (Barbiere and Simdbo, 2009). The importance of this sector is linked to the growth and strengthening of a country, since it directs resources to productive projects, thus enabling new investments in the economy, strengthening companies and increasing the number of jobs (Pombo Correa, 2005).

One of the characteristics of financial services is the high reliance on information technology and telecommunications. These elements are key to product and process fail-safe performance, meeting customer expectations that are related to convenience, speed, simplicity and low cost. But according to Roxo da Fonseca (2004), both information technology and telecommunication are not considered competitive differentials, since they have become commodities, that is, they are used at the same level by the competitors.

Innovation in the financial sector must consider the use of state-of-the-art technologies that are reliable, robust, resilient and cost-effective (Roxo da Fonseca, 2004), and at the same time agile because of any current technological change. The innovations cannot have, as intermediate or final results, serious errors because the implantation process, as quoted by de Jong et al. (2003, 28), is developed directly with customers.

According to the McKinsey Quarterly report (2007), innovation in the financial sector is a greater challenge than in other service sectors, mainly because of the pressure to realize this innovation in the short term. On the other hand, in this industry, it is not possible to test the service completely before putting it on the market. For innovations involving computerized processes and systems, customer perception is collected during the certification process with the market (de Jong et al., 2003), which can be a problem since customers may not accept what has been defined or the new process / product may not be consistent with what currently exists, making the transition traumatic for all involved.

To reduce the impact of the innovation outcome on the financial market and its customers, it is advisable for a company to determine the level of innovation that will be implemented. According to Kotler, the concept of innovation can be defined in four levels:

1. Business Model Change in how the company generates value - requires a major restructuring in the company or creation of a new business network;
2. Process Change in logistics or sales or operations;
3. Market Change aiming at a new consumer audience, meeting new needs or being present in new purchasing and consumption situations; and
4. Products and Services.

Technological changes, new models or expanded lines directed to the same consumers, needs and situations (Kotler and Trias De Bes 2011, 45). Defining the level of innovation, the company can determine, in a less open, but still as a guess, the following points:

- Degree of risk,
- Investment values,
- Consequence of the innovation project for the organization and the market, and

- Levels of responsibility in the execution of the project.

Through the mapping of the points related above, the company can know what are the possible impacts that the result of the innovative project will bring to the market and thus present to its clients in a way that they understand the benefits, take with the organization the possible risks and the changes to be carried out.

3.8. Expansion strategy of financial services in rural areas in Mozambique through technology

How can financial services reach rural areas? What works? Where does it work? What are the preconditions? At the global level, low-income clients find it difficult to reach them because they are not priorities for banks. In Mozambique, this is reflected in the fact that only 11% of the adult population (Finscope Mozambique, 2009) has access to formal financial services such as: bank accounts, savings accounts, loans and transfer services - a very low level compared to other African countries. This is due to the very low levels of education in general, and financial education in particular, and above all the lack of financial institutions in rural areas.

However, new technologies and business models appear promising to overcome this situation. Banking agents bring formal financial services closer to the rural population. For example, mobile money offers basic financial services with easy access and reduced requirements. Access to formal financial services and safe forms of saving greatly improve the lives of the disadvantaged, and allows the rural population to better manage daily risks, alleviating the effects of financial shocks, and allowing more investments in their lives. In Mozambique, mobile money, or common services of mobile telephony by Vodafone or Vodacom in are called (M-pesa) and Mcel telephony (M-Kesh).

M-Pesa is a mobile bank service of Vodafone (through the Safaricom branch), offered in Kenya since March 2007, the first to operate extensively. It attracted ten million customers in three years, accounting for 11% of GDP and 45% of the country's adult population. How does it work? The customer goes to a convenience store (agent) and exchanges money for electronic credits. These stores receive a fee paid by Safaricom with each conversion of amounts made. Money then becomes an e-float (Safaricom credit) until it is ready to be used for transfers, purchase of mobile credits or invoices for accounts with a maximum value of US $800. This electronic money account is linked to the phone number and is accessible through an application on the customer's SIM card[1]

Mobile telephone services in other developing countries, particularly in Kenya, have yielded very satisfactory results. The data show that: at the end of 2009 M-pesa's services had 9 million users. At the beginning of 2011, it had 14 million users, handling US $14 million/ day and covering 68% of the adult population in Kenya. In Mozambique, the services has to be well analyzed and implemented with prudence, since, since the arrival of this innovative service (mobile money), there has been no significant increase in the

[1] https://pt.wikipedia.org/wiki/M-Pesa#cite_note-Harvard-1

expansion of financial services in the country, which means that there is still a need for a revision of the implementation strategy of these services.

According to Muthiora & Chutumia (2014) mobile money is relevant for Mozambique, but has as a major challenge the management of the agent network, because in a country like Mozambique, where distances are very wide and population density is very low, it is difficult to manage this. The authors explain the strategy of the Mobile Portfolio used to market the management of the agent network for super agents. Unfortunately, this strategy was not as successful as expected, and it also emphasizes the importance of having the support of the top mobile phone companies for mobile money to be successful. More importantly, customer / consumer education was emphasized, especially in rural areas, due to the low level of schooling in the country. People should not only know the characteristics of the product, but also need to be shown how to use the product, how to navigate the menu, and so on.

Illiteracy, low levels of financial education, and low levels of knowing how to use technologies are some of the major constraints. If people have difficulty using the menu or simply cannot read the menu options, this automatically excludes them from using the service. However, the widespread exclusion in Mozambique is believed to be a great opportunity for mobile money, as mobile money has great potential, but it is a very difficult business.

3.8.1 An initiative to adopt

The adoption of innovative financial services, can be used as a technique to leverage the banking economy. Beyond mobile banking, for example, the adoption of ATMs with multi-functions that are used to withdraw money, deposit and other activities, usually found in developed countries such as Japan, US, and others, can help the expansion of financial services into the rural areas in developing countries, and is well suited to the Mozambican context.

In an era when most of the commercial banks argue that the cost of branch or agency installations is excessive, ATM installations could be considered a good technique to leverage the banking economy, using the strategy of location to install ATMs in rural areas but installing them in some recognized or main commercial center inside the districts or villages in rural areas. With the adoption of this technology, ATMs with the ability to make deposits and withdrawals (the main activity of commercial banks agencies), could be considered a strategy to assist the banking economy.

The adoption of this technology would help the leverage expansion of financial services as well, which would help the commercial banks in expanding their services without necessarily expanding in terms of number of agencies in the rural areas. Assuming that mobile banking is still having little acceptance in the Mozambique Market, due to the fact that Mozambique is still overcoming barriers in terms of financial inclusion, this is an issue still very sensitive due to several factors. With ATMs having multiple functions scattered around the country, with an appropriate or easy language in local communities, this could facilitate the daily life of the population in terms of their ability to access and use financial services.

It is believed that the installation of ATMs in almost all areas of the country will raise the level of financial inclusion, and consequently the banking economy, although, it is known that there is a bank in Mozambique, the first Bank operating in the country (Barclays), that have already implemented this innovative service in new ATM systems in some of their agencies in the capital. From the marketing perspective, this system was implemented by Barclays bank in Mozambique as an experience to minimize time on queues, reduce agency workloads, allow clients managers to give more attention to customers, and to facilitate the using of financial services such as: deposits, withdrawals and others, without the need to go necessarily to an agency to do so. According to the Barclays Bank Report for 2014, the experience in the introduction of these systems showed that they were not very well accepted by the consumers/costumers, and they are still struggling to adapt their product into the Mozambican market.

Chapter 4: Case study Discussion

4. Characterization of Mozambique and the Central Bank of Mozambique

Mozambique is located on the Southeast Coast of the African Continent, bounded by the East Indian Ocean, Northern Tanzania, Malawi and Zambia, West Zimbabwe and South Africa and Swaziland. Mozambique is divided into 10 Provinces in three regions, namely: Maputo (capital of Mozambique), Gaza, Inhambane in the South; Sofala, Manica, Zambézia and Tete in the Central region and Niassa, Nampula and Cabo Delgado in the North region. Each region (South, Center and North) has specific environmental and cultural characteristics, making Mozambique the land of contrasts, with a population of 25 million.

The Bank of Mozambique (Portuguese: Banco de Moçambique; BM) is the central bank of Mozambique. The bank does not function as a commercial bank, but has the responsibility of governing the monetary policies of the country. The president of the Republic appoints the governor to lead the bank. The bank is situated in the capital, Maputo, and has two branches, one in Beira and one in Nampula. The Bank of Mozambique is active in developing financial inclusion policy and is a member of the Alliance for Financial Inclusion.

4.1. Actions taken over Banking of the Economy

In 2007, the BM launched the Banking Economy Strategy, which included a set of measures of action, of which relaxation of the constraints to the opening and establishment of banking agencies in rural areas. Incentives and political and judicial measures were taken to the commercial banks and microfinance institutions wishing to extend their activity to rural areas for a period of 5 years. In 2012, the re-evaluation of the actuality of that measure was carried out, concluded by its extension for an equal period, as the measure has yielded satisfactory but still very slow results due to limitations in financial inclusion.

Today, as a way of overcoming these difficulties, the Mozambican government has launched the strategy of financial inclusion. The factors that led to the adoption of this strategy were the fact that financial inclusion is a recent issue in Mozambique. Their interest is increased by the following:

- It is believed that financial inclusion can contribute to accelerating economic expansion and improving the well-being of the population;
- This will promote the implementation of monetary and financial policy.

In 2007, the Bank, in partnership with the Government, launched the Banking Economy Strategy (Notice nº10 / GBM / 2007 of May 29). Available information indicates that a significant number of the country's districts do not have access to financial services. Given the interest in:

- Diagnose the situation relating to Financial Inclusion in the country as a result of the banking system of the economy;
- Evaluate the determinants of Financial Inclusion in Mozambique;
- Identify the challenges for Financial Inclusion;
- Verify innovation as a technique to help bank the economy.

In a web conference interview, had been the opportunity to obtain information, to have a deeper knowledge and to analyze the data and to obtain results on the banking system of the economy in Mozambique, from its beginning to the present, what its future perspectives, and the possibility of adopting innovation, that is, innovative services as a technique to leverage the banking system of the economy.

According to our interviewee, banking of the economy, through the innovation of financial services to rural areas, either through the physical presence of bank branches or through information and communication technologies, has been producing remarkable results and increasing access and use of financial services by the Mozambican population. In effect, according to the Governor of the Bank of Mozambique, Ernesto Gove, indicators of demographic access to bank branches, measured by the availability of these (agencies) for each hundred thousand inhabitants and geographic access, which is based on the number of agencies in every 10 thousand square kilometers, shows that there has been improvement in the financial inclusion index since the beginning of the banking system. In this context, the demographic access index currently stands at four branches per 100,000 inhabitants, compared to only two in 2005, while the geographical access index has grown from three branches per every 10,000 kilometers to seven at the moment.

Having the need to accelerate the extension of financial services to districts without any access points, the following actions are needed:

- Continue with public investments in basic infrastructures;
- Improve the quality of the electrical and communications network to reduce the costs of installing a bank representative;
- Encourage the establishment of banking representations in rural areas;
- Strengthen the dissemination of activities and economic potential in the districts;
- Financial Education to stimulate demand for financial services;
- Adapt some regulations to the dynamics that take place in this sector; and
- Consolidate macroeconomic and financial sector stability (attracting new investors to the sector, increasing savings, reducing intermediation costs).

4.2. Discussion and analysis of the extension of banking through innovation in Mozambique

The extension of financial services and products to the majority of the population is part of the strategic objectives of the Mozambican authorities. Financial inclusion has of course been evolving from its implementation to the present day, but not with very significant milestones, and there is still a stronger concentration of access points to financial services in the urban area than in the rural. According to data from the Bank of Mozambique, there are still about 65 districts without banking representation, and 42 districts with no access to financial services at all. Socioeconomic and infrastructural aspects greatly influence the decision to open agencies and the degree of financial inclusion. In some districts, there are minimum conditions for establishing bank representation. The challenge is how to induce the rapid installation of banks in these areas.

To this end, to complement and expand financial services to rural areas, we have opted to develop financial education programs with the use of assertive language and appropriate communication channels for rural areas, such as radio and television, so that financial education contents can be taken to the most remote corners of the country in local languages, with the collaboration of community radio stations. The financial education program is part of the National Strategy for the Development of the Financial Sector, which aims to improve the level of financial inclusion to about 35 per cent of the adult population by 2022.

With financial education, it is intended to provide citizens with tools for a broader understanding of the concepts for the better dissemination of knowledge about what the financial market provides, and this will contribute to the formation of people and society responsible and committed to the future. According to the interviewees in this study, the presently launched Financial Education program will comprise two phases: A first one that goes from 2014 until 2016, in which, on an experimental basis, communication strategies will be implemented (already occurred). The second stage will run from 2017 to 2022 and will be fundamentally for the improvement and replication of the strategies of the first phase in the whole national territory.

The possibility of rigorously implementing innovations in financial services as a technique to leverage the banking of the economy, and a credible strategy, but difficult to implement, since, on the one hand, there is a population without access to financial services due to the precarious condition in the country. The most important being illiteracy- the population that fears technology and innovation which contributes to the poor adherence to, inclusion of, and use of financial services. On the other hand, there are the arguments about other constraints made by the institutions that refuse to invest in new agencies, as discussed above. This may make it difficult to develop or innovate some of the products and services directed to rural communities. To do so, Mozambique would have to invest more in research and development of technologies to implement some services according to the reality of Mozambique. If achieved, this may mean that by 2022 the banking of the economy will be based on the communication strategies mentioned above.

Chapter 5: Conclusions and Recommendations

5. Conclusions

In this study I tried to analyze the expansion of financial institutions in rural areas through the innovation of financial services. The study was developed through the Central Bank of Mozambique, and was based on the assumption that innovation is a technique that can be used to improve financial services and leverage the process of developing a banking economy. This is because the greater the concentration of infrastructure in rural areas the greater the concentration of financial services in these areas, and the consequent positive impact of these services in the local community. On the other hand, the low concentration of financial services in rural areas is due to the lower economic dynamism, high operating and investment costs for the installation and operation of the financial services offered by rural areas in relation to urban areas. These have a negative impact on the local community.

From the analysis, it can be concluded that the expansion of financial services in rural areas is a problem of size, not only of the deficiencies in the community that lives there. The lack of a resources and savings culture coupled with the fact that the rural population is a peasant one, since agriculture is the main activity, whose surpluses enter the agricultural marketing circuit and gain little income for each family individually, which forces them to choose to spend money on physical and durable goods at the expense of savings.

It is concluded that banks have a certain fear of establishing themselves in these places, due to their low productive capacity, and the types of activities practiced by the population. These are not a source of immediate money generation, and are not attractive considering that the main activity of the bank is sell money and multiply money. The existence of financial institutions in rural areas has a positive impact, due to the provision of financial services, and mainly obtained from the financial intermediation process, which means that mitigation of deficiencies, existence of higher levels of investments, and a higher level of entrepreneurship, are positive factors for the concentration of banking in some rural areas, which makes valid the hypothesis that the greater the concentration of infrastructure, the greater the concentration of financial services in these areas, and the consequent positive impact of financial services to the local community. The existence of financial institutions makes it easier to design credit for the rural community through the process of financial intermediation, and consequently support economic development.

According to the interviews, illiteracy in Mozambique characterizes a large part of the rural community, making it difficult for them to interact with banks and to perceive the benefits that increased financial services can bring to a given community. It is also concluded that the existence of such infrastructure will arouse interest on the part of banking investors, but these infrastructures must be associated with the state services in this zone, because the state also plays an essential role. If there is infrastructure, if there are investments, the banks will be attracted, because the banks also want to make money.

In this sense, it is necessary to reinforce policy measures aimed at increasing the geographical and demographic access of rural communities to financial services, within the scope of Government and banking strategies, with a view to expanding these services to rural areas. These measures should focus not only on banks, but also on other credit institutions that contribute to the improvement of financial institutions' expansion. Allied to these aspects, it is concluded that financial institutions need to consider the implementation of such measures as an incentive to open bank branches in rural areas, as they provide an opportunity for the exploration of the business in new geographical areas covering new potential customers.

At the level of financial intermediaries, it is concluded that, with the objective of expanding the use of financial services and products in geographical areas where access channels already exist, providers and other stakeholders with an interest in improving financial expansion should strengthen measures aimed at improving the mechanisms for disseminating, informing and educating consumers and rural communities in general about the services and financial products available to them.

In general, as shown in this study, financial expansion has been improving in recent years, favored by the impact of various legal and institutional measures, as well as some improvements in the technological and infrastructural field implemented by the Government, the Bank of Mozambique, and other stakeholders. However, there are significant implications for the process of opening agencies, which involves improving information on economic activity and infrastructure. It is considered that there is still a challenge in this area to extend financial services and products to a larger proportion of the population, and even with the use of Internet and ATM technologies, this situation is still challenging.

In this context, the fourth hypothesis of this study is also valid, considering that the low concentration of such services in rural areas is related to the lower economic dynamism, high operating and investment costs for the installation and operation of financial services that rural areas offer in relation to urban areas, and which continues to have a negative impact on the local community.

The first hypothesis of this study, which affirms that innovation is a technique that can be used to improve financial services and leverage the process of banking economy, was also validated, because the most recent innovations in financial services such as: mobile banking, internet banking, Multi-function ATMs, and so on in Mozambique, have a lot of credibility and acceptance in urban areas, although a large part of the population residing in the rural areas face many barriers to use these services, because the population still requires the basic processes of financial inclusion. In Mozambique, the resources of information and communication technologies are still not very developed, and that makes the country slow to introduce the aspects of modern banking to the economy of the country.

5.1. Recommendations

- Continue the appropriate implementation of financial education programs directed to rural areas;
- Adopt technological devices (such as: smartphones, tablets with applications that would not need internet);
- Implement electronic currency services (ATMs that collect deposits);
- Implement policies to promote access to financial services in rural areas;
- Develop and implement policies that promote financial inclusion; and
- Promote financial education to improve understanding of the population, specifically the rural community, about the advantages of using modern financial services.

References

Amarcy, S. & Massingue, N. (2009). Desafios da expansão dos serviços financeiros em Moçambique

Aghion, P. e Bolton, P. (1997), "A Theory of Trickle-down Growth and Development," Review of Economic Studies, 64 (2), 151-172

BCB. (2011). "Relatório de Inclusão Financeira". Brasília: BCB, Banco Central do Brasil

Beck, T., Levine, R., e Loayza, N. (2000), "Finance and the Sources of Growth," Journal of Financial Economics, 58 (1), 261-300

Beck, T., Demirguç-Kunt, A. e Levine, R. (2007), "Finance, Inequality and the Poor," Journal of Economic Growth, 12(1), 27-49.

Beck, T., Demirguc-Kunt, A., e Peria, M. (2007), "Reaching out: Access to and use of banking services across countries", Journal of Financial Economics, 85 (1), 234-266.

Beck, T., Demirguc-Kunt, A. e Levine, R. (2005), "Law and Firms Access to Finance," American Law and Economics Review, 7 (1), 211-252.

Caido, A. & Caiado. (sd). J. Gestão de instituições financeiras (2ª ed).

Campbell, J. (2006), "Household Finance," Journal of Finance, 61 (4), 1553-1604

Classens, S. (2006), "Access to Financial Services: A Review of the Issues and Public Policy Issues," World Bank Researcher Observer, 21 (2), 207-240.

Daniel Mill Doutor em Educação – UFMG – Professor e Coordenador de EaD – Universidade Federal de São Carlos – UAB-UFSCar (2007)

Fernando Fidalgo Doutor em Educação – PUC-SP – Pós-doutor em Educação – Université de Paris X – e Professor do Programa de Pós-Graduação em Educação da Faculdade de Educação – UFMG (2007)

Fernando, L. &. Oreiro, L. (sd). Sistema financeiro, uma análise do sector bancário brasileiro, editora vozes.

Furtado. C (1964). Dialéctica do desenvolvimento. (2ª ed.) Rio de Janeiro, ed. Fundo de cultura

Gardeva, A. e E. Rhyne. (2011). "Opportunities and Obstacles to Financial Inclusion: Survey Report". Center for Financial Inclusion at Accion International, Publication 12

GIL, António C. (2008) Métodos e técnicas de pesquisa social, 5ª edição, São Paulo, Atlas editora S.A

Goldenberg, Mirian. (2004), Arte de Pesquisar. 8ª Edição, Rio de Janeiro São Paulo, editora Record.

Guerrero, R., S. Espinosa e K. Focke. (2012). “Aproximación a una Visión Integral de la Inclusión Financiera. Aspectos Conceptuales y Casos Práticos”. In: BCE (2012).

Guiso, L., Sapienza, P., e Zingales, L. (2003), “People´s Opium: The Economic Effects of Religion,” Journal of Monetary Economics, 50, 225-282.

Hanohan, P., (2008), “Cross-country Variation in Household Access to Financial Services,” Journal of Banking & Finance, 32 (11), 2493-2500.

House, W.J., 1984. 'Nairobi's Informal Sector: Dynamic Entrepreneurs or Surplus Labour? Economic Development and Cultural Change, Vol. 32, pp.277-302.

Hanson, J., Honohan, P., e Majnoni, G. (2003), “Globalization and National Financial Systems,” Washington, D.C.: World Bank and Oxford University Press

Karlan, D e Morduch, J., (2009), “Access to Finance” em Rodrik, D. e Rosenzweig, M. (Eds), Handbook of Development Economics, Volume 5, Capítulo 2.

Khalily, M.A. Baqui and Richard L. Meyer, 1993. "The Political Economy of Rural Loan Recovery: Evidence from Bangladesh". Savings and Development. xvii(1):23-38.

Khandker, Shahidur R., Baqui Khalily and Zahed Khan, 1993. "Grameen Bank: What Do We Know?". Draft mimeo. The World Bank.

Klapper, L., Laeven, L. e Raghuram, R. (2006), “Entry Regulation as Barrier to Entrepreneurship,” Journal of Financial Economics, 82 (3), 591-629

Kurwijila, R. and J.M. Due, 1991. 'Credit for Women's Income Generation: A Tanzanian Case Study', Canadian Journal of African Studies, Vol. 25, No. 1, pp.90-103.

Lundberg, S. e Pollak, R. (1996), "Bargaining and Distribution in Marriage." Journal of Economic Perspectives, 10(4), 139-158.

Mehora, N., V. Puhazhendhi, G. Gopakumaran-Nair e B. Shahoo. (2009), "Financial Inclusion – An Overview", National Bank for Agriculture and Rural Development, Department of Economic Analysis and Research, Mumbai, Occasional Paper nº. 48.44

Mishkin, F. (1998). Moedas, Bancos e Mercados Financeiros (5ª ed), Rio de Janeiro

Odean, T. (1998a), "Are Investors Reluctant to Realize their Losses?" Journal of Finance 53, 1775-1798.

Page.C & Mayer. D. (2000). Applied research design for business and management. Mc Grau – Hill: Sydney

Patel, Y. Silvina, A. Baptista, C. Wazela, T. & Jaquete, S. (2007). Expansão dos serviços financeiros as zonas rurais

Richardson, R. J e tal. (1999) Pesquisa Social: métodos e técnicas. São Paulo, Atlas

Quivy, R, Campenhoud Luck Von. (1998). Manual de investigação em ciências sociais, edição1, Lisboa, Gradiva.

Robinson, M., (2001), “The Microfinance Revolution: Sustainable Finance for the Poor,” Wahington, D.C.: World Bank.

Sarma, M. (2008). “Index of Financial Inclusion”, Discussion Papers in Economics nº. 10-05, Centre for International Trade and Development, School of International Studies, Jawaharlal Nehru University, IndiaSarma, M. (2012).” Index of Financial Inclusion – A measure of Financial sector inclusiveness”, Working Paper nº.04/2012, DAAD partnership.

Sarma, M. e J. Pais, (2010). “Financial Inclusion and Development: A Cross Country Analysis”, Indian Council for Research on International Economics Relations and Institute for Studies in Industrial Development

Shefrin, H. (2009), “Behavioralizing Finance,” Foundations and Trends in Finance 4, (1-2), 1-184.

Stiglitz, J. e Weiss, A. (1981), “Credit Rationing in Markets with Imperfect Information,” American Economic Review, 71(3), 393-410.

World Bank 2012. “World Development Indicators.” Washington: World Bank

World Bank 2008. “Finance for All? Policies and Pitfalls in expanding Access”, World Bank, 1989. World Development Report, 1989.

World Bank. 1994. Development of Rural Financial Markets in Sub-Saharan Africa, World Bank Discussion Paper No. 219.

World Bank, 1993. Handbook on Financial Sector Operations First Edition, Operations Policy Department.

Yaron, Jacob, 1994. "What Makes Rural Finance Institutions Successful?". The World Bank Research Observer. ((1):49-70.

Attachments

Interview questions

- According to the government portal, last year the government launched the financial inclusion strategy, an initiative of the Netherlands and the Bank of Mozambique. What actions are being taken within the strategies to be implemented in the process of financial inclusion in Mozambique?

- What are the strengths, weaknesses, prospects and challenges for financial inclusion in Mozambique?

- Knowing that one of the results of financial inclusion will be / is the expansion of credit and the emergence of new banking products, regarding the reality of the banking system of the economy in Mozambique, which strategies to expand or expand financial services in rural areas can be used through technology? (In addition to Mobile baking (M-pesa, M-Kesh) that had little success compared to Kenya!)

- Have you thought about using innovation and creativity to help leverage the process of expanding rural services and financial inclusion in Mozambique?

  - If yes, what innovation? What results did you bring and are you bringing?

- If not, in your point of view, how likely is this technique (innovation) to help leverage this process?
- To what extent can innovation help financial institutions to expand their services to rural areas?
- What types of innovative financial services can be implemented in rural areas as a way to mitigate financial exclusion?

➢ One of the actions to be taken in the process of financial inclusion in any nation is the financial education of the communities / population. In your view, which financial education programs are and should be conducted in rural areas of Mozambique? In view of the difficulties these areas present!

➢ According to the actions, strategies, and results obtained so far, what is the view of government actors, and market players' view, regarding the banking of the economy in Mozambique?