Institutional performance and financing

How to stimulate economic development for local communities: The case of Kupang, Indonesia

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March 2013

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Abstract

This study aims to assess the performance of institutions in the financing of local economic development. The study does so, by looking how theories of development financing can contribute to models of regional economic development. Based on a theoretical constructed framework, a case study is conducted to empirically test this theoretical construct. This case is Kupang, a region in the South-East of Indonesia, where poverty levels are high. Following an analysis of the results, it is evident there are low levels of inter-institutional collaboration, as well as inadequate education and inappropriate financing, constraining the region from development.

Key words: *Regional economic development, institutions, financing for development, human coordination*

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1. Introduction

Indonesia's economy, currently ranking 17th in the world economy, has enormous promise. The growth in Indonesia's consuming class is stronger than any economy of the world apart from China and India, a signal to international business and investors of considerable new opportunities. However. an uneven distribution of economic growth across the archipelago and rising inequality are serious concerns (McKinsey and Company, 2012). However, even if a region has poor resource endowments and few opportunities for economic expansion, it might still succeed as long as effective institutions act as a catalyst and facilitate entrepreneurial activity (Stimson, Stough, and Nijkamp, 2011).
One region that has is still lacking behind in terms of economic growth and development is the Kupang region. The region of Kupang, located in the western part of the island Timor, Indonesia, has been facing an ongoing struggle with the reduction of poverty levels in the region, and a large percentage of the local people rely on farming to generate income. Despite several initiatives to develop the region, the region continues lacking behind. This just represents one of the many cases and might pose a great pressure on a country like Indonesia. Therefore, it has to be considered how to ensure that economic growth is as inclusive as possible and on the institutional performance in a region.

This is not only the case for Indonesia, since the 1970s, the rise of globalization has resulted in growing inequality around the world and has changed the way social concerns are addressed. These effects have forced us to rethink conventional approaches towards economic development, and as a result, demanded new institutions to regulate the process of this economic development (Vázquez-Barquero, 2002).

A new approach towards economic development is focused on endogenous growth which distinguishes itself from neoclassical theories on growth, by emphasizing that economic growth is an endogenous outcome of an economic system, not the result of forces that drive from outside (Romer, 1994). Moreover, this evolutionary development is particularly significant as the importance of regions in national economies has changed drastically, as a result of globalization, through deregulation, structural change and adjustment (Stimson, Stough, and Nijkamp, 2011; Vázquez-Barquero, 2002).

A recent regional endogenous development model is constructed by Stimson, Stough and Salazar (2009) and can be seen in figure one. The authors argue for a proactive approach to development in which institutions play a vital role. The outcome in this model of the regional economic development process is the degree to which a city or region has achieved competitive performance, displayed entrepreneurship, and achieved sustainable development. This outcome, the dependent variable, is related to a regions resource endowments and its fit with the market conditions.

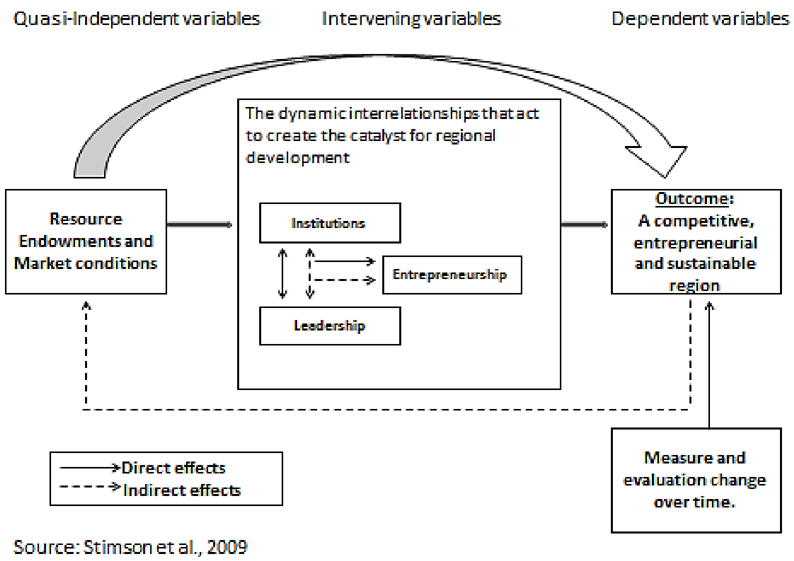


Figure 1 - A framework for regional endogenous development

The model emphasizes the importance of the performance of institutions within a region and is seen as one of the main variables that influences economic development. According to Vázquez-Barquero (2002), institutions consist of the same set of norms and agreements as actors, organizations and nations provide themselves with, in order to regulate their economic, social and political relations. Furthermore, the nature of institutions and institutional structures within a society can have a profound influence on how effective and efficient a society operates, as well as the competitiveness of its regional economies. Within regional economic development, it is vital to have an appropriate institutional arrangement to manage and fund the regional or local development strategy process; ensuring the implementation of plans and action (Blakely, 1994).

However, precise conclusions cannot be drawn on the financing at this local development level as data is limited; therefore it is imperative this is investigated.

The reawakened interest in analyzing the importance of financial institutions as an economic growth factor is recognized by Fernandez de Guavara and Mandos (2009) who stress the importance of the development of finance. This is supported by Goenka and Henley (2010) who observe that in South-East Asia, the most consistently successful region of the developing world, economic growth and poverty reduction have been accompanied by a transformation in the availability and use of credit and savings among the less prosperous branches of society. They reasoned that better access to financial services enables the poor to improve planning for the future and invest in productivity enhancing assets (Goenka and Henley, 2010; World Bank, 2006).

Clearly, theories on both the role of financing and endogenous growth models within development literature have gained relevance over the last couple of years; however they are not considered to be influential in institutional decision-making. Within endogenous growth models, financial innovation is generally ignored and the financial systems are taken as given and inert (Michalopoulos, Laeven and Levine, 2009). Financing for development is often external and does not take into account the endogenous nature of development. Especially theories concerning the financing for the poor, are often concerned with the level interest rates, amount of the loan and the returns these loans will generate. Hereby, the financing approach is often isolated from other variables influencing the development process, such as the one mentioned by Stimson et al. (2009), and short term results and benefits are the focus (Marr, 2012). However, they do take a more practical approach in calculating costs and benefits of certain projects where theories on regional economic development might overestimate the costs of enforcing such models in practice.

One way to rethink approaches towards development is by combining theories of regional economic development and theories on financing for this development. Hereby new insights can be gathered on the process of economic development. How institutions, and their role in the financing of development can contribute to the modeling of economic development for local communities is therefore the focus of this study.

1.1 Research Objective

This study will focus on the effect institutions can have on this local community in the process of development. Since effective institutions can act as a catalyst and facilitate entrepreneurial activity in a region. Moreover this paper will investigate how theories of financing for development can contribute to the modeling of regional economic development processes. This will allow for a more detailed analysis of the effect institutions since the importance of the financing role institutions have.

It is especially relevant now, when the effects of globalization have forced entrepreneurial systems to interact with the institutions of each society and to adapt to the conditions of each environment (Vázquez-Barquero, 2002). Greater market competition makes competitiveness increasingly dependent on the dynamic of the institutional network that structures the milieu in which the local community is present. Therefore, considering the current conditions in which a region has to develop, the performance of institutions and their financing role within a region is highly relevant.

Despite the fact that different variables were presented in the model of Stimson et al. (2009), it is evident that leadership in particular, as well as entrepreneurship, are interrelated to institutions. So, this research will develop a model based on this thereby closely examining the institutions within a region and the role financing can play for the local community. By doing so, this research will try to explore whether different insights can be gathered on if the theories of endogenous regional development are being modified with theories on development financing.

Despite the fact that development can be seen on different levels, such as national, regional and local (Model in development by Pennink, 2013) the study will be concerned about the local community, thereby focusing on the very poor.

1.2 Research questions

The main research question that will be investigated in this research is the following:

How do theories of institutional performance and the role of financing contribute to the modeling of regional economic development?

In order to answer these research questions, several sub questions will be answered:

The first two questions will help in attaining a modified model, the second two on empirical testing; finally coming a conclusion about the main research question.

1. *What is stated in the current literature about the performance of institutions in the regional development of local communities?*

2. *What is stated in the current literature about the performance of institutions regarding the financing of regional development for the local communities?*

3. *What is the current influence of institutional performance and the role of financing on the entrepreneurial activities in the Kupang region?*

4. *How should a new regional economic development model look like?*

In order to be able to answer the research questions and the above named sub questions, this paper is constructed in the following manner;

The first part of this study will be theoretical in which, prerequisites for effective and efficient institutions will be selected from the current literature on local economic development. In addition, the literature on financing for development will be studied and prerequisites for appropriate performance of financial institutions are selected. This theory building will be used to create a model for regional economic development by adding variables that are most likely to play a significant role in the process. The model can be tested by the use of a framework which will be further created in the research design chapter. This framework will function as a tool to analyze the empirical results derived from the case study after which the results will be used to further develop our model. In the final discussion chapter, the new findings will be discussed and criticized.

By taking a closer look upon the performance of institutions and their financing role in the process of regional economic development, new insights will be gathered that could stimulate the process of becoming a competitive and sustainable region. It will result in a regional development model, based on the model of Stimson et al. (2009), incorporating theories of financing for regional development.

2. Literature review

2.1 Institutions in regional economic development

This chapter will give an overview of the current literature about institutional performance in regional economic development. The first part will be concerned with general regional economic development. Following this, focus will be put upon institutions and the prerequisites they should conform to.

What is significant about endogenous growth theory is that it places emphasis on the importance of local factors in creating and maintaining sustained development as opposed to ones external to the region (Stimson, Stough & Salazar, 2009). In other words, endogenous development is the development process that takes place when the local community is able to put its development potential to work and conduct structural change (Vázquez-Barquero, 2002). This concept is based on the idea that localities and territories possess economic, human, institutional and cultural resources, as well as hidden economies of scale that constitute their development potential. It is important to note that these development processes do not take place in a vacuum but rather have profound institutional and cultural roots (Vázquez-Barquero, 2002). In the process of regional economic development, institutions play a significant role. This is contradicting the more neoclassical theory, which focuses more on the operation of efficient markets. Therefore, few western economists understand the institutional requirements essential to creating such markets because they simply take them for granted (North, 1992). Institutions create an opportunity for society and especially within the theory of local development it is those opportunities that become so important. Evidently, if there are no opportunities for the local community, the way towards development becomes more difficult. Therefore, with the new environmental regions having to compete due to globalization, it is important to take a closer look at these institutions and their influence on the economic development of the local community.

Throughout history, institutions have been devised by human beings for the purpose of creating order and to reduce uncertainty of exchange (North, 1991). Institutions, together with the constraints of economics, define the choice set and therefore determine transaction and production costs and hence the profitability and feasibility of engaging economic activity (North, 1991). According to North (1991) institutions can be defined as the rules of the game that structure and determine economic, social and political relations among the actors and organizations throughout the productive activity.

In the context of this regional development, the terms ‘institutions’ or ‘institutional arrangements’ are used in a broad way and refer not only to these structural and process issues, but also to those things that are provided or influenced by those structures and processes (Stimson et al., 2009). The institutional factors cover a wide range of issues concerning governance and government and not only refer to the role of the public sector, but also to the private sector, NGO and community actors and structures, as well as to the contemporary notion of public-private-community partnerships (Stimson, Stough & Salazar, 2009).

Effective institutions enable a society to achieve good results in terms of economic growth (Zouhaier, 2012) better institutions are associated with higher income levels of a country and lower level of poverty (Imai, Gaiha and Thapa, 2010). Supported by Stimson et al. (2009) who state that the institutional capacity and capability is a crucial issue that can have an enhancing effect on the growth and development of a city or region. This is aligned with the early contributions of Knack & Keefer (1995) and Mauro (1995) who turned to the effects of good institutions on economic growth.

An alternative view is provided by Djankov, Glaeser, La Porta, Lopez-de-Silanes and Shleifer (2003), who argue that each community faces a set of institutional opportunities determined largely by the human and social capital of its population. The greater the human and social capital of a community, the more attractive is its institutional opportunity. In this framework, institutions are points, representing the possibilities for these institutions, on this opportunity set, determined by efficiency, history and politics. According to the authors, institutions are highly persistent because history, including colonial history, shapes social outcomes. But institutional outcomes increasingly become better, as the society grows richer, because institutional opportunities improve. Evident here is that this shows a more second order effect of institutions on economic performance (Glaeser, La Porta, Lopez-de-Silanes and Shleifer, 2004). The first order effects come from the human and social capital, which shapes both institutional and productive capacities of society. The importance of this human factor is also mentioned by Vredegoor and

Pennink (2013) who argue that within theories on regional economic development, the importance of this human factor and the coordination between humans should be emphasized. This human coordination will result in several benefits such as reducing conflicts between the different institutions, better distribution of information and an easier acquisition of financing. Therefore, this concept is highly relevant and will be called upon later in the constructing of the model (Vredegoor and Pennink 2013). However, since the concept of human coordination is rather broad, it concerns human coordination of institutional activities in this case.

2.1.1 Selection of prerequisites for effective institutions

Clearly, many aspects will influence the effectiveness and efficiency of the local institutions in the process of economic development. The reason for the specifying of these prerequisites is that it provides clarity and structure and it will be used as a tool to analyze the empirical results later on in this paper. The following prerequisites are selected based on their importance in the literature on regional economic development and are also highly correlated with the human coordination factor of institutional activities, mentioned in the previous paragraph. In the development of a regional economic development model, these prerequisites will be implemented.

As Streeck (1991) points out, it is those cities and regions with institutional systems that encourage the production of public goods and actors who cooperate to promote learning and innovation where it will be better to compete. They will either facilitate economic activity or put obstacles in its way. This is also argued by Pose (1998) and Gil (1997, 1999) who observe that in new institutional theories the strategic significance of institutions in the development processes lies in the economies that its functioning provides.

Inter-Institutional collaboration and network interaction

Leadership, as is mentioned in the model of Stimson et al. (2009) is not so much a function of the individual leader as it is a function of collective action, of association and cooperation (Fairholm, 1994). Institutions in the local area, such as financial institutions, government agencies, business service organizations, provide a basis for the growth of particular local practices (Amin and Thrift, 1995). Moreover, they need to be actively engaged with each other thereby showing high levels of contact, cooperation and information (Stimson et al., 2009) This is supported by (Vázquez-Barquero, 2002) who argue that the essential condition for the existence of cooperation are the social and institutional relations, and the more agreements between them, the better and more adequate the conditions will be for development. Thereby, it is important that with this cooperation a common goal is established in order to create direction in an effective and successful cooperation among the institutions. Therefore, inter-institutional collaboration is an important criteria in assessing the role of institutions in managing the development in a region.

Trust (as a governance device)

According to Storper and Scott (1992), differing levels of trust in a region may explain the degree of cooperation and the establishment of alliances and partnerships among actors. In addition, Fairholm (1994:3) mentions that local or community leadership takes place in situations or cultures where leaders and followers trust each other enough to accept the risk, vulnerability and uncertainty of being involved in collaborative action. Williamson (1993) sees the concepts of trust to risk analysis in that it would refer to the probability that an individual with whom a relation of cooperation has been established will not act against us. In this case trust has to be analyzed both on the level of trust between the local community and institutions and the trust established between the different institutions.

Institutional decentralization

Decentralization, it is claimed by Pollitt and Bouckaert (2002), is about layers that increase the distance between the national government and the regional authorities. These layers hinder the difficult task to reform the national, and therefore broad, goals into narrow specific and manageable objectives. In the field of regional economic development, decentralization of these institutions also relies in the power they possess towards decision making. This decentralization of power is claimed to enable community leaders to make their own decisions according to the specific needs of the region. Moreover, it is important the power does not reside in one single person or entity but rather that power and responsibilities are dispersed. Also, decentralization of power can enable community leaders to make their own decisions according to specific needs of a city or region (Stimson et al., 2011).

Stimulation of active participation from local community

Stough (1995) identified that local initiative is crucial for initiating and sustaining regional economic development. However, this does have to be supported by the available institutions in order to be effective. Blakely (1994) takes a similar approach in arguing that active participation by the local community is necessary and both small and large communities need to understand that local governments, community institutions and the private sector are important actors in the economic development.

Since local development strategy assumes that local institutions, development paths and local resources condition the economic process, a region should resort to its endogenous local factors Vázquez-Barquero (2002). It is the local actors who are able to transform a region or territory through their actions who would be at the helm in the processes of change. De Windt (2011) also emphasizes the importance of active participation of the local community since active participation creates an understanding of the development process and increases self-confidence of individuals. Simultaneously it will enhance the building of community skills to the level that they can decrease their dependence on outside actors.

Education and the diffusion of knowledge

A diffusion of knowledge could lead to decreased transaction cost and stimulate learning and innovative processes for the local actors. However, strong inter-institutional links have to be set up in order to stimulate the exchange of products and information and the diffusion of knowledge among plants and local firms (Vázquez-Barquero, 2002). Despite the fact that this diffusion of knowledge is strongly correlated with the established trust mentioned in one of the previous criteria, it is the local development policy, implanted by the present institutions, which fosters the diffusion of knowledge.

Diffusion of knowledge, learning and coordination are some of the externalities that are a result of the interaction of processes that determine endogenous development (Vázquez-Barquero, 2002).

Already early endogenous growth models explain productivity growth by the input of human capital or skilled labor which have positive effects on the growth rate or output per worker (Aghion and Howitt, 1992; Grossman and Helpman, 1991; Romer, 1990). Hence, they argue that an increase in average educational attainment of the labor force will lead to a permanent increase in the long-term growth rate of per capita income. Vredegoor and Pennink (2013) mention the importance of education by saying that both training and education are crucial activities influencing the development of skills and knowledge from people.

Availability of resources

Evidently, in order for an institution to function properly, resources have to be available. De Santis and Stough (1999) relate the availability of resources locally to the local economic development effectiveness. Additionally, Stimson et al. (2005) argue that it is widely recognized that economic growth and performance is related or tied to resources. So the capacity of the local institutions will be considerably dependent on the resources available to them.

Flexibility

Another important variable conditioning local development is institutional flexibility. Greater adaptive flexibility encourages technological and structural change, accelerating the development process. Moreover, lack of flexibility will create barriers to the adoption of innovations necessary for the development (Vázquez-Barquero, 2002).

It is the joint action on all the determinant factors of endogenous development to put a region in a better competitive position. However, taken into account that in order to achieve the desired result of endogenous development, these different prerequisites need to be stimulated simultaneously in order make a feasible interaction among all of the factors. It is only in this way that the conditions for economic and social progress are created (Vázquez-Barquero, 2002) and a sustainable and competitive region could be an achievable outcome.

The previous prerequisites will be used to further develop the regional development model and form the basis for the institutional performance evaluation in the empirical analysis. However, first the theory on financing for development will be discussed.

2.2 The role of financing in regional economic development

Over the past couple of years there has been a reawakened interest in analyzing the importance of financial institutions as an economic growth factor (Fernandez de Guavara and Mandos, 2009). Also Levine and Zervos (1998), concluded in their research that financial institutions provide the service necessary to guarantee long-term economic growth. Within the literature on regional economic development little is mentioned about the financing role institutions have in the development of the local community. Blakely (1994), for example, mentions the necessity of having appropriate institutional arrangement to manage and fund the regional economic development strategy process and to ensure the implementation of plans and actions. This need for funding is also referred to by Doloreux, Isaksen, Aslesen, and Melancon (2009) who mention financial support as one of the main support functions of institutions in regional development. This financial support is seen as the funding that banks, government organizations or private investors provide for the small businesses (Doloreux et al., 2009). Especially in poor communities, established and accessible assets, such as social capital, human capital and financial resources, and the ability to mobilize them to meet their needs is lacking (Merrit and Stubbs, 2012). However, more detailed insights in the role of financing within the theories of endogenous growth are barely mentioned and have to be found in other fields of literature.

As many economists have agreed on, financial intermediation, when present in rural markets in developing countries is characterized by asymmetric information problems and by the presence of local market power (Conning and Udry, 2007; Ghosh, Mookherjee and Ray, 2001; Morduch 1999). These asymmetric information problems can be explained by the following: Borrowers (for example farmers who want to expand their agricultural business) know more than the lenders (financial institutions) about their productive opportunities, the risk they face, the effort they put in, and the output realized. Lenders do not operate in perfectly competitive markets; they have varying degrees of market power, either because entry into rural markets is difficult or because they possess informational advantages over other lenders (Henley and Goenka, 2010). One way in which this difficulty in the credit markets can be overcome is collateral, which is forfeited in event of default (Bester, 1987). By receiving the collateral, the lender recognizes that the borrower is not risky and is this willing to lend. In a similar fashion, when borrowers do not find it desirable to post collateral, they probably find the probability of losing this collateral as too high, restraining them from receiving a loan (Henley and Goenka, 2010). This is how commercial banks typically operate. Nevertheless, the rural poor, and especially the farmers, may not have collateral to post, resulting in an exclusion from the organized credit market. In order to avoid this problem, some financial institutions are spending resources on the screening of the borrower to determine the risk the loan will be exposed at. This screening involves interviews, for example with neighbors and family of the borrower and checking credit histories. However, this screening involves fixed costs which, when the loan is only small, may not be worthwhile spending.

One solution with these issues was found in the provision of microfinance (Armendariz and Morduch, 2010). However, despite the fact that microfinance has come to be seen as a key weapon in the battle against poverty, generating more enthusiasm than perhaps any other development strategy (Henley and Goenka, 2010), its critiques have been substantial and its effects on the local community in the rural areas remains uncertain (Marr, 2012).

Rural financial markets, especially those involving agricultural credit institutions, have been at the center of government interventions in most developing countries over the last five decades and with the help of various donor agencies, governments have spent sizable resources into these programs. The outcome of these interventions however, have been generally disappointing (Yaron, McDonald and Piprek, 1997) However, recent developments in the provision of rural financial services, both saving and credit, during the last decade have demonstrated that proper institutional design and adherence to appropriate policies pay off and have the potential to generate substantial achievements in terms of both greater institutional outreach and self-sustainability (Mahajan and Ramola, 1996). This institutional outreach and self-sustainability have gained wide acceptance among academics and practices for the assessing of institutional performance and will be used in the selection of prerequisites. But first it is essential to take into account the nature of the financing.

Since this research is focused on the local farmers in a region, the different elements in the role of financing become sector specific. This supported by the World Bank (2005), who emphasizes the importance of creating sustainable financial institutions in providing a range of financial services that are based on client demand. When financial institutions are better adjusted to client demand, the opportunity to make a lasting contribution to the reduction of rural poverty arises because people need access to financial services on a permanent basis in order to manage their financial affairs and to be able to grow their economic activities. Moreover, agriculture has traditionally been a difficult sector for lenders and investors. It is often exposed to high systematic risk both in terms of markets and environment (e.g. drought, flood, diseases etc.) Therefore, the following will take a closer look upon financing for the local community.

According to the World Bank (2007), economic growth in the agricultural sector is twice as effective in reducing poverty as growth in other sectors of the economy. As a result, strengthening agricultural value chains may be among the most effective ways to reduce poverty levels. Despite the fact that financial services are often necessary and crucial in order to attain productivity growth for farmers, difficulties remain due to its exposure of high systematic risks. Nevertheless, financial services can enable farmers to increase scale and productivity it enables them to grow, thereby increasing output. Needless to say, households can smooth their income and reduce the impact of unfortunate events such as drought, disease and other events that are part of daily life in development countries. Moreover, financial intermediaries produce information about investment projects, thereby improving capital allocation (Michalopoulos et al., 2009).

The difficulty with accessibility to financing services for the local actors in the agricultural sector remains present. The aim of this paper is whether it is possible to get a better understanding of the above named issues by incorporating the financing for development in a regional economic development model. An important note has to be made concerning the goal of these financial institutions and the provision of capital; it is not only the evolution of wealth bequeathed to the next generation or used to accumulate human capital but also the evolution of skills or human capital in order for it to enhance long-run growth and distribution of income (Henley and Goenka, 2010).

2.2.1 Prerequisites for the financing role of institutions

In order to assess the current financing of institutions for the local community the framework of outreach and self-sustainability is used. This approach focuses on two primary criteria, outreach and self-sustainability, which indicate the extent and efficiency with which financial and institutional intermediaries serve the poor. Although neither fully addresses the effects financial intermediation has on the borrower's well-being, these criteria indicate the extent and efficiency with which financial intermediaries serve the poor (Rhyne, 1998). Therefore, in assessing the role of institutions in the financing of development this approach provides a simple but appropriate tool and figure three shows how the two criteria should be examined jointly (Mahajan and Ramola, 1996):

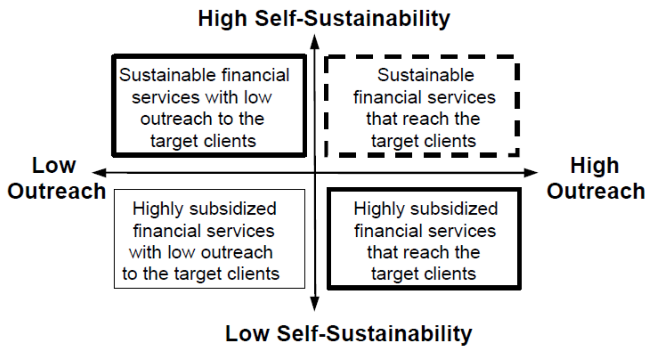


Figure 2 - The framework of Outreach and Self-Sustainability

Institutional Outreach

Outreach is a measure of the scale and depth of penetration of institutions to targeted clientele, generally the rural poor. An important indicator for this outreach can be found in the quality of services provided by the institution. This is an important aspect and quality here has to be assessed on the transaction cost to clients and the flexibility and suitability for the local clients (Yaron, Benjamin and Piprek, 1997).

Self-sustainability

Sustainability addresses the ability of an institution to survive on the long run and includes ownership governance and management dimension as well as financial ones. This is for example achieved when the return on equity or net subsidies receive equals or exceeds the opportunity cost of equity funds. Two common ways in which the self-sustainability can be measured are return on equity (ROE) which measures the returns produced for the owners and return on assets (ROA) which reflects the organizations ability to use its assets productively (Yaron, Benjamin and Piprek, 1997);

$$ROE = \frac{After - tax\ profits}{Starting\ (or\ period - average) equity}$$

$$ROA = \frac{After - tax\ profits}{Starting\ (or\ period - average) Assets}$$

However, conventional accounting practices such as return on equity or return on assets fail to reflect most subsidies received by state-owned rural financial institutions or by non-governmental organizations (NGOs). Therefore, they do not show the true social cost of maintaining these intermediaries and it is impossible to determine whether continuing support for those institutions is warranted. Especially concerning the sustainability of a region that is required as an outcome of regional economic development, the question as to whether an institution will be able to maintain itself when continuing subsidies are no longer available (World Bank, 2003). Therefore a measurement can be the Financial Self-Sufficiency (FSS) which is a subsidy-adjusted indicator and often used by donor-funded financial institutions. It measures the extent to which financial institutions business revenue, mainly interest rates received, covers the adjusted costs. If the FSS is below 100 percent than financial break even has not been achieved:

$$FSS = \frac{Business\ revenue\ (excluding\ grants)}{Total\ expenses + IA + CFA + ISA}$$

In which:

IA: Inflation adjustment; reflects the loss of real value of an institutions net monetary assets due to inflation[1]

CFA: Subsidized-cost-of-Funds Adjustment calculates the effect of soft loans to the institutions[2]

[1] IA: (Assets that are denominated in currency amounts – Liabilities that are denominated in currency amounts) *the inflation rate of the period

[2] CFA: Period-average borrowing by institutions * market rate interest-actual amount of interest paid by the institutions during the period

ISA: In-kind Subsidy Adjustment quantifies the benefit the institutions get when it receives goods or services without paying a market price for them (free services of a manager for example.)[3]

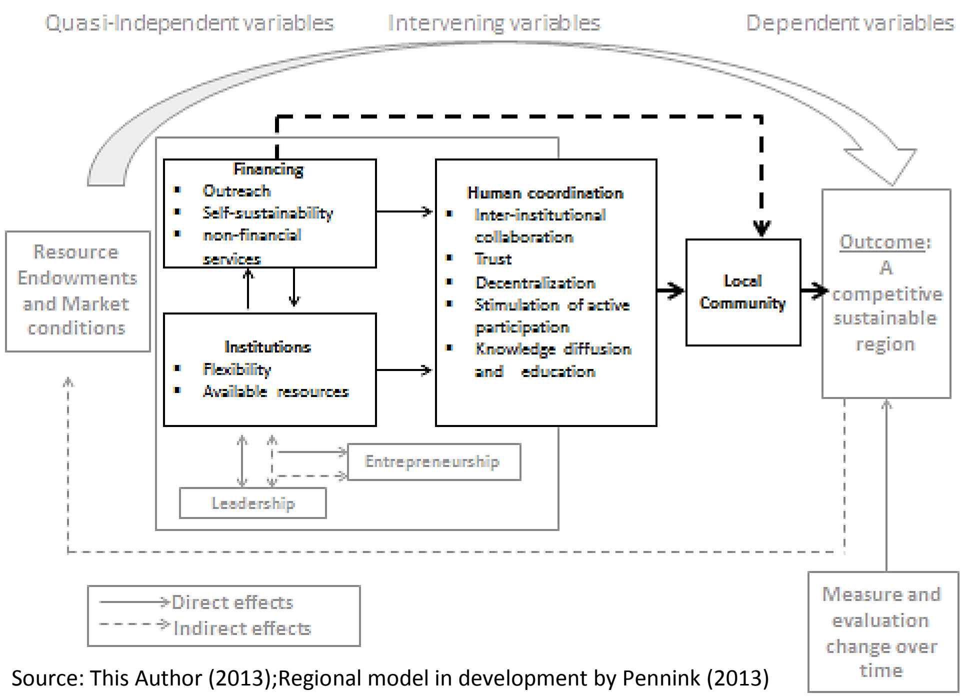
Non-financial supporting services

In order to improve the ability to demand and utilize rural finance, non-financial criteria are very important. Since financial institutions are only as strong as their clients, their ability to reach the poor can be enhanced by improving the abilities of households to manage their economic and financial activities (World Bank, 2003). Supporting programs for example, can help here. By providing non-financial services, institutions can modify their services in order to educate the local community about money. These variables are necessary to assess and evaluate the financial performance.

[3] ISA: Market price an unsubsidized (financial) institutions would pay for a good or service – actual price paid by the (financial) institution

2.3 The new model for regional economic development

With the selection of the prerequisites in the previous chapter, a new model for regional economic development can be constructed. This model, as was shown in the introduction of this paper, is based on Stimson et al. (2009) but adopted and modified for the use of this research. The highlighted elements in the following model thus show the precise investigation of this research and will be used explicitly to explore in the case study:



Source: This Author (2013);Regional model in development by Pennink (2013)

Figure 3- A new model for regional economic development

As can be seen in figure 3, the four main elements for this research are the institutions, the financing, human coordination and the local community. The Financing variable can be evaluated on outreach, self-sustainability and the availability of non-financial services. A large part of the prerequisites are placed under the variable of human coordination. As was named in the theory, both in the field of regional economic development and of the financing, the human factor becomes an important element. Additionally, Vredegoor and Pennink (2013) recognized human coordination to be vital in the process of regional economic development and therefore this variable, together with the suitable prerequisites are added in the center of the model. Different here is that this human coordination is seen from an institutional perspective thereby providing a link between institutions and the local community. Therefore this human coordination is placed on the border of the quadrat since it is supposed to be through human coordination, that the inter-dynamics of institutions and financing are reaching the local community. Especially since human coordination makes it easier for the acquisition of finance (Vredegoor and Pennink, 2013) this should be explored. Despite the fact that entrepreneurial activity within the local community is highly important, this model names the local community variable explicitly. This is to emphasize the focus of this research is on this local community within a region and to avoid confusion.

3. Research design

In order to explore the new regional development model, several aspects have to be taken into account.

First of all, the agricultural sector is complex, posing challenges in the investigation. In order to investigate these difficulties a case study can be performed that will take into account the unique context of a phenomenon (Yin, 2009). A case' study's unique strength is its ability to deal with a full variety of evidence-documents, artifacts, interviews and observations beyond what might be available in a conventional historical study (Yin, 2009); this will be an appropriate research method in investigating the issue at stake. Moreover, Yin (2009) argues that a case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident. This is the case with the regional economic development in the Kupang region. The rationale for a single case study is the representative case. The objective is to capture the circumstances and conditions of a case study may represent a typical "project" among many different projects. The lessons learned from this case are assumed to be informative about an average region and could therefore provide a wider relevance (Yin, 2009).

Documentation will be collected depending on the availability: administrative documents, reports of the farmers and local institutions but also other formal studies and different case studies that have been performed in the region. To enable a more precise assessment the institutions can be divided in the following parties:

The government

An important institution in Indonesia is the *government*. Power is still centralized from Jakarta but towards the more local communities different levels of governance are in place:

Figure 4 - Different levels of governance

Nongovernmental Organizations (NGOs)

Nongovernmental organizations can be defined as “self-governing, private, non-profit organizations that are geared to improving the quality of life of disadvantaged people” (Vakil, 1997: 2060). NGOs operate in all sectors of society and they have existed in developed and developing countries for more than 50 years. On a local level, they have supported community, social and economic development initiatives (Navarro-Flores, 2011).

Financial institutions

In developing countries, typical agricultural financial flows do not involve money flows from the large commercial banks to the local farmer and institutional supply covers only a small portion of potential. Moreover, access in financial services in the agricultural sector, particularly credit, is generally low in volume (USAID, 2006). Therefore, for the purpose of this study the regional bank and microfinance institutions are selected. Moreover, any informal finance forms such as credit corporative, family loans or pawnshop are not incorporated in the framework due to the difficulties these informal finance forms have with transparency and measurement.

Regional banks

Regional banks are institutions whose objectives are neither national nor global and whose leadership and staffs have a regional outlook. A main challenge confronting these regional banks is the financing of regional project, which are beyond the reach of national development banks (Bloch, 1966).

Microfinance institutions

Microfinance is the provision of financial services to the poor, on a scale of appropriate to their needs (Henley and Goenka, 2010). The term includes facilities for small savings but the microfinance service that has gained most attention is the provision of small loans. This microcredit is for purposes of investment, in agriculture, small enterprises or education, or to cover unforeseen short-term expenses. In recent years, microcredit has come to be seen as a key weapon in the battle against poverty, generating more enthusiasm than perhaps any other development strategy (Henley and Goenka, 2010).

Difficulties in collecting and quantifying data pose a major challenge in addressing the problem and from the different types of institutions and the prerequisites, identified in the theory section, the following framework can be constructed. This framework will work as a tool to empirically analyze the institutional performance in the Kupang region. Moreover, the framework will highlight the prerequisites that should be added in the final model and is used to empirically analyze the results. A final note is the different levels that can be seen in the framework. On the right side of the framework a distinction is made between the regional and the local level in which the different elements will be analyzed. The different types of institutions mentioned in the previous are also present in this framework in order to provide a more detailed analysis of the performance of the institutions.

Criteria	**Type of institution**				
1.Institutional performance	**Government**	**NGO**[4]	**Financial institution**		**Regional level**
			Rural bank *MFI*[5]		
1. Inter-Institutional collaboration and network interaction					
2. Trust (as a governance device)					
3. Institutional decentralization					
4. Stimulation of active participation from local community					
5. Education and diffusion of knowledge					
6. Availability of resources					
7. Flexibility					
2.Institutional Financing					**Local level**
8. Institutional Outreach					
9. Self-Sustainability					
10. Non-financial supporting services					

Table 1 - The prerequisites in a framework

[4] NGO stands for Non-governmental organization
[5] MFI stands for Microfinance institution.

3.1 The Kupang region

For many years scholars have researched the problems on Timor and the majority of them are most common in undeveloped countries. Mostly it is a combination of factors such as unfavorable physical conditions, simple technologies and a social setting impeding progress and modernization (Ormerling, 1956).

Already in 1956, Ormeling published a book concerning the problems on the Island of Timor. According to the author, most reports published in the post-war years dealt mainly with the matter of primary production concentrating on the main problem: Shifting cultivation and cattle raising. Moreover, there was an increasing awareness of the close relationship between economic development and social structure, clarifying the Timor problem (Ormerling, 1956). Currently there is still an ongoing struggle with the reduction of poverty levels in the Kupang district, located in west of Timor and the similarities with the struggles described in 1956 and the current issues of the region are shocking. Farmers still engage in low-risk activities such as cultivating of crops and raising of livestock and poverty levels in the area are among the highest in Indonesia.
In this region the cattle productivity is the main commodity used for trade and to establish income for the inhabitants of the area. Over 60% of the farmers in Kupang district rely on cattle farming so the importance for development in this industry is high. Despite the relevance of the sector, economic growth is lacking and the area deals with several problems such as a decrease in cattle population and low productivity levels. Mostly, with regard to the food supply for the cattle population in Kupang which will deal with systematic risks such as the dependency on seasons. For example, the protein contents of the pastures may fall dramatically in the dry season (Soares and Dryden, 2008). Since this is currently not managed and financed appropriately, the cattle are receiving lower quality food during the dry season which results in lower productivity and a decrease in the cattle population. Additionally, an extra complexity arises since livestock cannot be inventoried as certain other goods and food for the cattle has to be of high quality and sufficient, an extra difficulty arises in the management of the cattle productivity. An overview of the cattle industry in the Kupang area can be found in Appendix A. Currently, there is an initiative from the national government to create groups of farmers, so that they can form small corporations in order to agricultural productivity. The idea behind the program is to develop the region in such a way that it can be significant player in the export of cattle.

The region of Kupang was chosen because the University of Groningen, in cooperation with the Indonesian government (The ministry of planning; the Bappenas) and the Netherland educational office (Neso), has performed a regional economic development project in the Kupang region since 2010. Therefore, certain information was already available, making it an accessible region for performing this research.

3.2 Selection of the interviewees

In order to assess the role of the institutions, the different types of institutions identified in the previous chapter, experts from the Government, NGO's and financial institutions have to be interviewed. Thereby, it is important to do research within the local community to be able to see where for them the constraints and problems arise. In total there were 13 interviews performed with professionals. These professionals, or experts, have different backgrounds but can be categorized in the following; experts in the agricultural sector, experts concerning education and training, experts from non-governmental organizations and experts from financial institutions. The experts in the agricultural sector were chosen by the local government since these experts had extensive knowledge and information on the Kupang region. The other professionals were selected on both their experience in the region and the significance of the organization they work for. In addition, 7 farm visits were performed in different villages in the region. These were chosen randomly to avoid bias in their answering and to give insights in the views and experiences of the local community. Altogether the number of interviews performed was 20 (n=20). An overview of the conducted interviews can be found in Appendix B.

The structure of the interviews will be more guided conversations than structured queries and the interviews will be focused which means that several interviewees will be interview for a short period of time (Yin, 2009). Due to time constraints with this research, this will provide a better alternative than in-depth interviews that may take place over an extended period of time.

In addition, these semi-structured interviews were appropriate, since although a list of the themes and questions was present, the order of the questions can vary depending on the flow of the conversation and additional question can be required to explore the research question. It gives room for interviewees to explain, or build on their responses that is found a necessity in this context since this will control a for cultural differences and bias. Moreover, special care was taken regarding sensitive questions, for instance income levels, since it gives a greater time for the interviewer to build of trust and confidence with the interviewees (Saunders, Lewis and Thornhill, 2009).

4. Results

4.1 Empirical results of the institutional performance

In the previous part, a framework has been constructed to assess the performance of institutions in regional development. Now, one by one the prerequisites will be empirically analyzed so that at the end, the framework can be filled in and a future model for regional development can be constructed. After a discussion of each of the prerequisites, a score is given. There are three different types of scaling: High means that the perquisite is present, moderate means that it is found partially and low means that the institution does not or hardly fulfill the prerequisite. The different scores will be used to fulfill the framework constructed in the research design section.

Inter-institutional collaboration and network interaction

The inter-institutional collaboration and network interaction entails that institutions are actively engaged with each other thereby showing high levels of contact, cooperation and information.

From a government perspective the collaboration with the other institutions in the region is rather poor. The different government departments mentioned only a moderate collaboration with NGOs in the area. The first step for NGOs, when they want to start a project, is to go to the government to receive information on the places where help is most needed. However, most NGOs do not always have a focus on the local farmers and do not give feedback to the government once a project is established. Cooperation with financial institutions in the area also does not occur.[6] Another governmental perspective comes from the Regional mayor who states:

"For the people responsible in the institutions, working together is not the main focus. Who will be responsible if they will all work together?[7]"

The microfinance institution was also currently not working with any other institutions. However some contradicting findings were found with the microfinance institution. According to the manager in the institutions[8]:

[6] Interview with Department of livestock, p.30
[7] Interview with Regency mayor, p. 31
[8] Interview with Microfinance institution, p.32

"Currently there is no synergy between the different institutions. I believe we, the Government, NGO's and financial institutions, have to work together in order for us to stimulate local development. Right now, everyone is just working for themselves"

This is also recognized by the local community who is confused by all the different institutions demanding different requirements:

"For every institution we need to fulfill different requirements, the government wants this, the NGO wants that, I don't understand what is expected of me to receive help"

For all of the different institutions, the score given is low.

Trust (as a governance device)

Since differing levels of trust in a region may explain the degree of cooperation and the establishment of alliances and partnerships among actors, it is somewhat interlinked with the previous collaboration. These trust levels were moderate since the institutions did not show high levels of trust nor distrust. However, trust between the local communities in the different institutions is something different. The government is not always trusted by the local government due to high levels of corruption they perceive them to have. Often, the head of the village rather selects his own friends in family as receivers of government funds rather than the people who are in really direct needs.[9] Results regarding the trust between the NGOs and the local community are varying. On the one hand the local community feels deceived by NGOs since the work of NGOs has a limited time span and the local people fail to learn new habits within a short time.[10] On the other hand, NGOs make a real effort in communication with the poor communities and they have a better understanding of the local needs.[11] For the financial institutions the trust is more a formal one. When local people want to receive a loan they have to fulfill several requirements before entering into a form of cooperation:[12]

[9] Interview CSR department, p.31
[10] Interview CSR department, p.31
[11] Interview NGO Care Indonesia, p.31
[12] Interview Rural bank TLM, p. 31

"I would like to receive a loan from the bank to expand my business but in order to receive a loan I have to show all kinds of papers that I have a business. (Starts laughing) *I'm a farmer, what kind of papers can I show them?"*

Since none of the institutions has shown strong levels of trust, nor distrust the score is low for every institution.

Institutional decentralization

The decentralization of power is claimed to enable community leaders to make their own decisions according to the specific needs of the region. Regarding the other institutions, the microfinance institutions have more decentralization since they have more branches located in the rural areas. The NGO's also possess significant decentralization although dependent on their subsidies from a more central donor. The regional bank is only operating in the region and in that matter considered to be decentralized in the way the organization is structured. However, since certain practices, adoption of interest rates or the requirement for collateral from the borrower for example, are based on the rules and regulations of the national bank this level of decentralization of power is moderate.[13] From a government perspective, decentralization does exist in the different levels of governance and the regional government has its own departments. However, budget for their operations has to come from Jakarta and the department needs to send letters to Jakarta in order to get funding for particular needs.[14] Another indication of lack of decentralization with the government is that decision making has to go to the different layers of governance and this makes it often slow.[15] The local community has a similar perception:[16]

"*We have registered with the government to form an official group of farmers last April, but currently, 8 months later, the registration still not has been progressed"*

With the previous in mind, the government scores low on decentralization as does the rural bank. Only the microfinance institution scores high in their level of decentralization.

Stimulation of active participation from local community

[13] Interview Regional bank NTT, p.31
[14] Interview Department of crops and agriculture, p.30
[15] Interview CSR department, p. 31
[16] Interview with Local community, p.32

The stimulation of active participation from the local community was mentioned in the theory section to be important since this creates an understanding of the development process and increases self-confidence of individuals.

The microfinance institution and the NGOs make effort in the active participation of the local community by socialization with the local people. They have field officers to go to the local churches and markets in order to attract clients. The regional bank however, does not make any particular effort in stimulating active participation from the local community.

The government tries to organize the farmers by the forming of groups so that the local farmers can have a cooperative form of farming. Once a farmer group is formed, they can receive funding from the government and start managing the farm.[17] The forming of the farmer group is an initiative of the national government. Despite the fact that some of the local farmers would be part of the government initiative, they experience that the registration takes a long time.[18] Another disadvantage in the stimulation of active participation from the local community is that the program of the government is not well linked to the local people:

"*The program of the governor has to be in tune with the need for the local people. Their vision and mission is currently not in touch with the local community in this area. They construct a program for the smart people and not for the uneducated ones. It is especially the latter category for which the government should make the programs more accessible"*[19]

The government scores average on this prerequisite since it is facilitating participation from the local community, but does not stimulate active participation as such. The regional bank is considered to score low, since they do not stimulate any active participation from the local community. Both the NGO and the microfinance institution make a significant effort in participation from the local community by extensive socialization and score high.

Education and the diffusion of knowledge

In the Kupang district, the population still attending school of 10 years and older in 2008 was 23.23 %, The percentage that was not anymore attending school was 69.09 % and the category

[17] Interview Department of crops and agriculture, p.30
[18] Interview Local community, p. 31
[19] Interview Headmaster school, p.32

that never attended school at all was 10.64 %[20] Most people from the remote areas still do not know the function of education[21]:

"Local people could sell their cow to throw a wedding party but they do not sell any of their cows to be able to effort education for their children. The idea is unfortunately supported by a very long tradition of the functioning of the products of a farm. The people believe that the product of the farm is only for family consumption, they live only for today. They do not think of the future and do not understand that education is a future investment because it does not concern the order of the day"

The education is not only lacking in general, but also concerning the knowledge creation for the farming business:

"The main issue our corporation is dealing with is that the people do not have the knowledge to maintain the farm and the livestock. The issue is with the human resource management and it is difficult to get people who know what the useful things to do on a farm are"[22]

Despite the fact that there is a training center available, the center from Jakarta faces the problem that many participants don't show up by the time they start the trainings for the local farmers which makes it difficult for them to educate.[23] An explanation for this is found by the Regency mayor:

"Why is the training center located here in Kupang? The center of knowledge and practice should not only be located in the city, but everywhere. They just have a center here and do not engage in any socialization with the people from the remote villages"

The lack of knowledge of the local community is one of the largest issues and this is recognized by all of the institutions in the area but the closest one to an effective and efficient approach towards knowledge diffusion are the NGOs. They make a special effort in communicating knowledge with the local community. However, often their time limit causes them to be unable to

[20]Badan Pusat statistic kabupaten Kupang (BPS- statistics of Kupang regency, 2009)

[21] Interview Headmaster school, p.32
[22] Interview local community, p. 32
[23] Interview Livestock training center, p.31

convince the local community that the knowledge they spread is very valuable.[24]An example of more effective education for the local community can be found with one of the more modern farmers:

"Here, people want to see someone else manage the farm successful before they will follow. So they are waiting for somebody to do it so that they can follow the example. What I currently do is inviting people here and to teach and show them how I manage the cows"

With regard to the diffusion of knowledge and education, it is only the NGO who scores moderate while the other institutions score low.

Availability of resources

In general the availability of resources in terms of manpower is not lacking. The only institutions who considered a lack of funding to be a main problem were the different government departments although they do receive funding from Jakarta, it was perceived not to be enough. Moreover, they are suffering from a lack of experts to provide training to the local farmers.[25]The regional mayor makes the following statement:[26]

"We have enough land, people and cows, all those crucial elements are available. We just do not use them in the right way"

All in all, none of the institutions claimed that it was the lack of resources, causing the biggest challenge in development for the local community. Only the government mentioned that with more resources and funding from Jakarta they would be able to support the local community more. However, since this was contradicted by the mayor, the score for the government is moderate in this case.

Flexibility

It is difficult to analyze the flexibility of the institutions since, within the scope of this study; it was not possible to make a longer study of the different institutions over time. The government however, was perceived by most interviewees as inflexible slow in responses, and not able very

[24] Interview NGO Care Indonesia, p.31
[25] Interview Department of crops and agriculture, p.30
[26] Interview Regency mayor, p.32

well to understand the need of the local people. NGOs are more flexible since they just run short-term projects and adapt to the current needs of the local people.[27]

In terms of institutional flexibility, only the NGO receives a score of moderate. However, for the other institutions flexibility cannot be assessed due to the single dimension of time in this study.

4.2 Empirical results of the institutional financing

Institutional Outreach

As was explained in the theory section, institutional outreach measures the extent to which institutions reach the rural poor and the suitability for the local clients is an important aspect of this reach. The NGOs are known to reach the rural poor. Their employees often live together with the remote villagers and try to do something for the rural poor. However, they often leave before people have adopted new habits and their projects are considered to be too short.[28] The regional bank does not do business with the most poor and their clients must have some sort of a business, other than farming, in order to fulfill the requirements of the regional bank and to receive funding.[29] The microfinance institution is somewhat similar and they believe that if the people do not have some sort of business, the money will just be used for direct consumption. They consider it not to be useful for the farmer to receive a loan because they have no real business.[30] The government realizes that it not reaching everyone due to a lack of experts they have to train and educate all the farmers in the area. Additional proof for the lack of the outreach of the financial means:[31]

"*The people here have no bank accounts, they have cows. A cow will be sold in a critical times and the security is limited. Once the cow is sold, they have nothing left"*

With regard to institutional outreach the government scores moderate and the rural bank scores low. The microfinance institution scores moderate, since they do socialize with the local community, but do not have a suitable way of financing for the local community. The NGO is the only one scoring high on outreach.

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[27] Interview CSR department, p.31
[28] Interview Regency mayor, p.32
[29] Interview Rural bank TLM, p.31
[30] Interview Microfinance institution, p.31
[31] Interview Regency mayor, p.32

Self-sustainability

The self-sustainability could be measured in different ways, as was explained in the theory section. However, official numbers concerning these measurements were not given by the interviewees. They did however gave an estimation of their self-sustainability based on the shown measurements (Return On Assets, Return An Equity or the Financial Self Sufficiency indicator).

Concerning the self-sustainability, the biggest issue is the dependency the different institutions have on their donors. NGOs are dependent on larger international donors and from a regional perspective; the regional government is also dependent on budget from Jakarta. Therefore their self-sufficiency indicator was estimated to score low. The financial institutions are more sustainable and show positive return on assets.[32]

With regard to the self-sustainability the government and the NGOs score low. The financial institutions score high on this prerequisite.

Non-financial services

The microfinance institution also acknowledges this issue with the loans to the poor people, and organizes activities to teach the people about the money:

"It is very important to give the local people training on how to deal with the money. So when they receive funding, we teach them how to get profit from the business, how to turn the money into a tool for a better life"

The government does provide training with regard to the managing of the farm but not explicitly on how people should manage funding. The regional banks do not participate in non-financial services or trainings. For NGOs their main line of business is to provide non-financial services, however this does not always concern the farming business. Many of the issues with regard to the financing of the local community deals with the fact that they do not know how to manage their money:

[32] Interview Regional bank NTT, p.31

"Out of the 25 people I know in this area who received a loan, only 12 of them were able to pay back the money on time. I believe they are not able to pay back the money because they do not have enough money for their daily needs. So when they receive a loan, they will just use the money to buy food. The people are impatient and therefore unable to pay back the loan"[33]

With regard to the non-financial supporting services the rural bank and the government score low since they do not provide these services. The microfinance institution does make a significant effort in the provision of non-financial services and scores high. The NGO is considered to score moderate on this prerequisite.

[33] Interview Farmer Otnial, p.31

4.3 Analysis of the empirical results

From the theory on endogenous growth and rural financing a conceptual framework was constructed. The framework is now completed with the results derived from the performed case study

There are three different types of scaling: High means that the perquisite is present, moderate means that it is found partially and low means that the institution does not or hardly fulfill the perquisite. The different institutions score rather different on the prerequisites.

Criteria	**Type of institution**				
1.Institutional performance	**Government**	**NGO**[34]	**Financial institution**		**Regional level**
			Rural bank	*MFI*[35]	
1. Inter-Institutional collaboration and network interaction	**Low**	**Low**	**Low**	**Low**	
2. Trust (as a governance device)	**Moderate**	**Moderate**	**Moderate**	**Moderate**	
3. Institutional decentralization	**Low**	**Moderate**	**Moderate**	**High**	
4. Stimulation of active participation from local community	**Moderate**	**High**	**Low**	**High**	
5. Education and diffusion of knowledge	**Low**	**Moderate**	**Low**	**Low**	
6. Availability of resources	**Moderate**	**High**	**High**	**High**	
7. Flexibility	**n/a**	**High**	**n/a**	**n/a**	
2.Institutional Financing					**Local level**
8. Institutional Outreach	**Moderate**	**High**	**Low**	**Moderate**	
9. Self-Sustainability	**Low**	**Low**	**High**	**High**	
10. Non-financial	**Low**	**Moderate**	**Low**	**High**	

Table 2 - The completed framework of prerequisites

[34] NGO stands for Non-governmental organization
[35] MFI stands for Microfinance institution.

In the framework, Inter-institutional collaboration and the education and knowledge criteria score very low with all the different institutions. It is not surprising that the inter-institutional is not fulfilled since also the prerequisites of trust is scoring only moderate and this can strongly influence the willingness for the institutions to cooperate with each other but also their cooperation with the local community. With regard to the decentralization the results are mixed and only the government scores really low due to the strong influence from Jakarta with regard to local decision making. Education and the diffusion of knowledge stands out for scoring low with all the different institutions but the NGO, who scores moderate. A prerequisite that stands out in a more positive way is the availability of resources, which is considered to be present for the different institutions. Flexibility was not achieved by the current result for which a possible explanation can be that this can only be measured and evaluated over time. With regard to the financial prerequisites, the results are varying. The financial institutions do score high on self-sustainability but especially for the regional bank, the outreach and non-financial services are low. This outreach is present for the NGO but the government scores only moderate here. Both institutions however, score low on self-sustainability since their dependency on outside donors for the NGO and the national government.

Overall, the main conclusions that are drawn from the analysis of the empirical results are are; the low levels of inter-institutional collaboration, inadequate education and knowledge diffusion and inappropriate financial services

Another interesting result from the framework is that the institutions score rather different on the varying prerequisites, indicating that all of them possess different qualities and achieving different outcomes with regard to the development for the local community. However, all in all, most of the prerequisites are not highly conformed to indicating that the influence on the local farmers in the Kupang region is currently not optimized. With the completion of the framework, the model of regional development can now be revised in the next chapter.

5. Conclusion: The regional development model revised

Three main conclusions were drawn from this study and will be discussed. These are; the low levels of inter-institutional collaboration, inadequate education and knowledge diffusion and inappropriate financial services. Therefore the model can now be revised and an explanation of the different variables and their relationships is given thereby answering the research question:

How do theories of institutional performance and the role of financing contribute to the modeling of regional economic development?

The highlighted part of the model represents once again the focus of this research and represent the contribution to the modeling of the regional economic development.

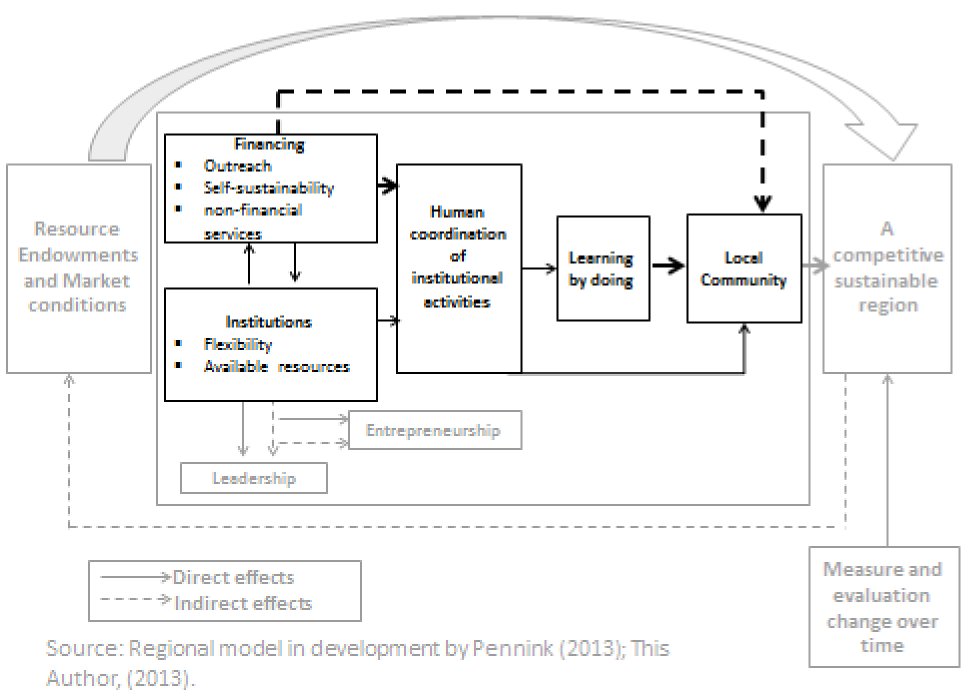

Figure 5- The revised regional development model

Human coordination of institutional activities

In the new revised model, the different prerequisites of inter-institutional collaboration, trust, decentralization and the stimulation of active participation are incorporated in the variable human coordination of institutional activities. The Knowledge diffusion and education prerequisite is now emphasized in the learning by doing variable since this prerequisites needs more specific focus.

From the analysis of the empirical results, especially the inter-collaboration between institutions was lacking in the Kupang region resulting in no clear directions for the local community in their path towards development. This emphasizes the need for human coordination that has to be placed in between the institutions and the local community. This human coordination of institutional activities will lead to a better coordination and collaboration between the different local institutions. This could be most beneficial, since the different institutions displayed varying qualities indicating that coordination could lead to a better result. Therefore, the revised model incorporated the prerequisites of the human coordination in the renamed variable human coordination of institutional activities. Also with regard to the financing, the local community was confused of all the different documents and requirements they had to fulfill in case they wanted to receive any funding. This confusion can be reduced by human coordination of the institutions as well, explaining the arrow between the variable of financing and the variable of human coordination. Also by directly being influenced by human coordination, the outreach with the local community might be achieved more effectively since both NGOs and microfinance institutions have better knowledge on the needs of the local community. Then, the financing might be able to better serve the right purpose, which is a mean to enhance economic development.

Financing for development

In financing, the self-sustainability of the local financing could strengthen the weak sustainability of for example the NGOs and the local government, thereby trying to finance the local development with the available local resources in order to prevent dependency on large outside financial aid. Institutions should be combined, with the thereby combining forces reaching the most. Moreover, the role of financing could, by enhancing human coordination, be truly focused on the human factor, and become an effective mean for the local economic development. Also, the non-financial services would need some human coordination in order for it to be effective. However, there will remain an arrow between the financing and the local community, since individual financing as is done currently in the region, cannot be excluded. However, suggested is a more indirect effect on the local community because without human coordination, these effects are not as much desirable

The arrows between institutions and financing display the role institutions have regarding the financing for development. The arrow from the finance variable to the institutions indicates the return on investment. A high return on investment with regard to investing in the local community should not be the aim. This accounts for both the loans for the local people and more general investments by the government. Since often, local people are unable to pay-back high rates of interests on small loans and results of investments will be lengthy due to the nature of the business of agriculture.

Learning by doing

The lack of knowledge and education was evident in the framework as well. However, as was derived from the results, local farmers need a successful example of another farmer from which they can learn and copy. Therefore, the variable of learning by doing is incorporated in the model stating that this would be a more effective way of education for the local community. This learning by doing could also lead to a better understanding of how funds can be turned into a tool for the local economic development thereby preventing potential funds to be used for the wrong purpose.

The quadrate in the entre of the model represents the local nature in which these processes take places. Once established on the local level, this will lead to regions that are competitive and more sustainable. This displays the focus of this model on the local community, thereby allowing for a more bottom-up vision.

All in all, the exploratory case study performed in this paper, has led to this model in which human coordination, learning by doing and the explicit focus on the local community become key when the theories of institutions and financing or development were used to contribute to a development model. By highlighting the prerequisites institutional performance and effective financing for development the new revised model shows that the coordination of the institutional activities is vital for the development to benefit the local community. Moreover, it shows that financing for development should not be isolated, since this will fail to display effective outreach towards to local community. With this improvement towards institutional effectiveness, these institutions will be more able to act as a catalyst and facilitate entrepreneurial activity within the local community. The next chapter will give a discuss this new model.

6. Discussion

This study aimed to incorporate theories of institutions and financing in models of economic development for local communities thereby looking at the performance of the different institutions, government, NGOs and financial institutions, in a region. Three main added variables were implemented in the model for development and will be discussed. These are; the significance of human coordination of institutional activities, inadequate education and knowledge diffusion and inappropriate financial services. Since the human coordination of institutional activities has also a strong influence on the other two, I will start by discussing the latter two:

Learning by doing

An explanation for the ineffective education can be found in the concept of time preference, which has played a fundamental role in theories of savings and investments (Becker and Mulligan, 1997). Fisher (1930: 72) formulates this in the following way:

"Poverty bears down heavily on all portions of a man's expected life. But it increases its want for immediate income even more than it increases the want for a future income."

It might be exactly this reasoning that makes it become clear why the current knowledge and education of the local farmers is ineffective and financial means are often used to fulfill the direct needs of daily life, thereby failing to function as a tool for development. The benefits of education are only visible on the long run and may be perceived of little value for the current daily needs. Therefore, learning by doing could be a valuable outcome and the groups of farmers, a program initiated by the government, could facilitate this learning by doing thereby providing the technical knowledge necessary for the farming. This is also supported by Pomeroy (2001) who performed a study on local fisher communities in Indonesia. He states that fisher-fisher transfer of knowledge and experience is a useful education method. So, learning by doing provides a practical solution for the difficulties the local communities face with knowledge and education. However, appropriate ways of financing should support this development.

Custom-made financing

With regard to the financing of the local institutions the above reasoning by Fisher (1930) can also be applied. Financial institutions, especially the ones focused on microfinance, often have a short-term loans available for the poor. These short-term loans do perfectly meet the direct need for immediate income but are inadequate for the purpose of development since most likely people will use the money for their direct daily needs. This could also explain why, despite different efforts of financial aid by western countries over the last couple of decades, the number of people living in chronicle poverty is actually increasing (Hanlon, Barrientos and Hulme, 2010). This could be supported by financial institutions since this showed high levels of self-sustainability for them, implying sufficient profitability. However, they also displayed low levels of outreach and supporting services, suggesting that they failed to reach the very poor both in terms of materials and education about money. Perhaps once again it has to be emphasized that financing should be a mean to a chosen end, and not an end itself in which profitability is the main goal.

Instead of focusing on short-term benefits for the poor, by donating money or livestock for example, it is important to be aware of this timing issue for the local community as well for the time it will take to see the effect of managing and financing successful development. With regard to the financing for the local community this would imply that the provision of loans, in the form of money or livestock would not lead to a sustainable region. Rather, investments should be made on the building of stalls, thereby focusing on returns on the long run and the education of people on how to manage a farm. In order words, enable financing to be custom-made with the focus on the needs for the local community.

Together they can

This is also the case for the human coordination of institutional activities. It has to be realized that the timing of institutional change is necessarily slow. Since economic development alters power relations with the society of a region, which requires adjustments, whose implementation requires time (Vázquez-Barquero, 2002). The importance of this collaboration is also emphasized by Stimson et al. (2005) who conclude that in our contemporary world of ever-increasing complexity, uncertainty and change, those who occupy the upper levels of institutions often become increasingly unable to understand what is really happening within the local community. Therefore, the Stimson et al., (2005) continue, partnerships and collaboration among the different stakeholders in a region are a necessity. Also, the local community has to be ready to change and this process cannot be completed from one day to the next. Rather this takes long periods of time allowing for institutions and societies to adapt. Nevertheless, more coordination could lead to more clarity for the local community since it will eliminate the complexity of the different requirements the institutions demand from them. However, one has to realize that progress with regard to economic development is slow, since changing the old habits is not an easy thing to do.

Something sustainable cannot be achieved in the short term and should not be focused on direct profits or investors who want to make fast profits. It is a long process in which learning by doing and knowledge diffusion become key ingredients and slowly adapting over time.

All in all the inevitable causing conflict with the development theories relies in the observation that poor people with a high need for direct income, are the subject of longer-term development plans. This might also explain part of the theoretical gap, which was found between the different development models and the literature on financing for development. However, since the exploratory nature of this study, the model should be a starting point for further investigation and verification.

7. Limitations

Possible limitations with this study can be found with the possible arbitrary findings of the author. Moreover, for the more complex parts of the interviews an interpreter was used which may have caused an extra bias in the results.

Since this study had to be conducted within a limited time frame, this study is exploratory. If more profound conclusions want to be drawn on the results, possible more interviewees have to be found to increase the quality of the results.

Moreover, a single case study was performed. Since development in a region is also very dependent on the cultural and historical aspects of a region, care has to be taken when taking these conclusions to other regions and further research will be needed.

Some suggestions for further research are the following

The new developed model in this paper could be used to study other regions. This way generalizability could be validated. Another more practical approach would be the implementing and testing of initiatives towards cooperation of the different local institutions in a region. This should then be done using a longitudinal study or an in-depth study. Hereby, changes over time can be studied and more detailed conclusions can be drawn with regard to the new regional economic development model.

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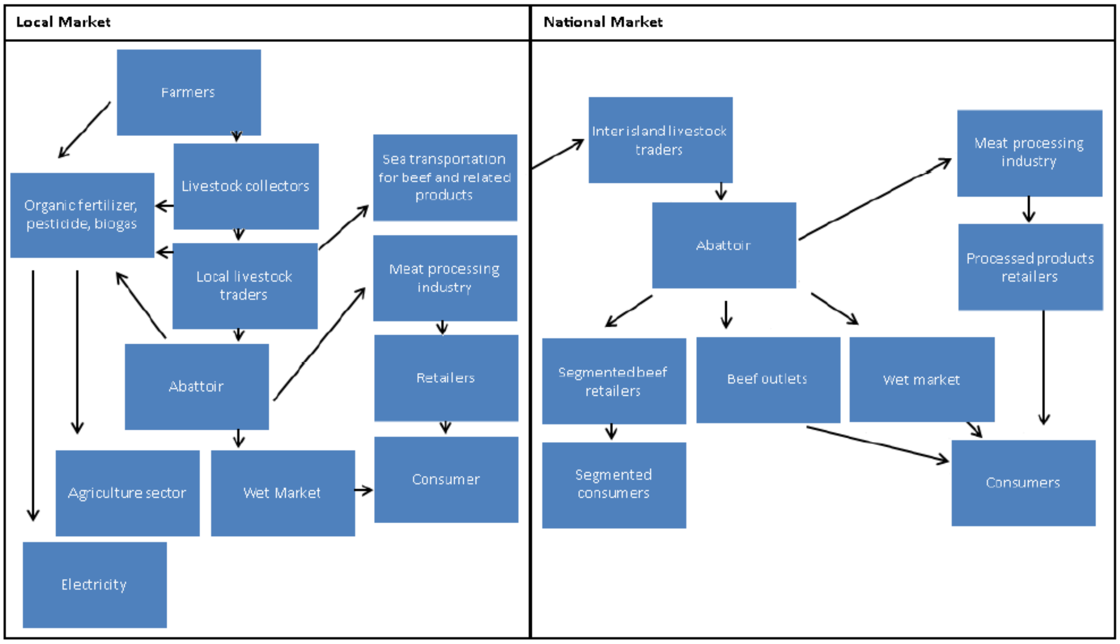
Presentation of the Regional economic development linkage team in the Kupang region, 2010

9. Appendices

9.1 APPENDIX A



9.2 APPENDIX B

Date of interview	**Name of person and/or Organization**	**Short Description of the institution or other**
24/11	Farmer Otnial Nuban	Farmer Otnial Nuban is an entrepreneurial farmer in the Kupang region. He cooperates with the smallholder agribusiness development initiative (SADI) and Support for market adaptive research (SMAR). He is the head of a group of farmers formed by the government and altogether the cooperation owns around 182 cows and can be considered a rather successful farmer in the area. He possesses some stalls for the cows, a hay shelter and is producing its own fertilizer. Currently he is busy building new stalls. The cows are managed in three different systems. With the first system, the farmers just let the cows go and let them find their own food, the second system allows the herding of the cows and in the third the cows are being held in stalls and the grass is cut and carried. Farmer Otnial Nuban was part of a Regional Economic Development (RED) team and has been visiting farms in the Netherlands.
26/11	Department of crops and agriculture, Obet Laha	Obet Laha works in the department of crops and agriculture which is an department of the regional government but works as an extension of the national government. In case the department needs additional funding they have to subscribe to the national government, the head of the department in Jakarta. The main job of the institution is to build on the things already existing in the region such as natural resources in the region and the potential of the local people. The department manages the groups of farmers which is part of the government program in order to further develop the area. The

		department recommends groups so the farmers can organize and after a proposal for cooperation is accepted by the department, the corporation can receive funding and expertise
27/11	Department of agriculture, (animal productivity) Yacoba Ludjawara	The department of animal productivity is trying to help the farmers with the development of the livestock. They try to communicate and interact with the local farmers on how to keep the cattle safe, feed the properly and improving productivity. The focus of the department is not solely on the cattle in the area but also on chickens, pigs and goats for example. The goal of the department is to increase the % of the cow-owners so that the cows can become a main source of income in the area. The aim is to establish the Kupang area as a main area for cow export to other parts of Indonesia.
28/11	Visit to the local cow-market	In the local cow market many cows are present. Of the male cows, most of them around 2 years old, most will be exported to Surabaya or Jakarta. The female cows have to be sold within the province in order for the cattle population to grow in the area.
4/12	Mr. Frits R Dimu Heo, Operational manager at the NTT Bank	The NTT banks is a regional bank who only operates in the NTT province. The bank does not cooperate with any other commercial bank but is owned by the government. In the Kupang region there are about 800 people employed by the bank.
4/12	Rural Bank Tanoaba Lais Manekat (TLM)	The rural bank Tanoaba Lais Manekat was founded in 2001. It provides regular financial services and is also supporting the microfinance institution of the TLM.
5/12	Head of the Farmer groups in the Kupang region, Mr. titu eki	The groups of farmers which are created by the government are supervised by the head of the farmer groups.
5/12	NGO Care Indonesia, Mrs. Julia,	Care Indonesia is a large nongovernmental organization (NGO) which has a good reputation and quiet some influence

		in the area. Julia works for the Health & education department in Kupang
6/12	Foundation Tanoaba Lais Manekat (NGO)	The TLM foundation is an NGO who provides non-financial and business development services to the local community in the Kupang area.
11/12	CSR department of the local mining firm, Mrs. Shelomytha Tabun,	Mrs. Tabun works for the Corporate Social Responsibility (CSR) department of the local mining firm. She has years of experience with the local community since she has been working for NGOs for a long time and was born and raised in the rural area of Kupang herself.
11/12	Farm visits in the Kupang area	The farm visits were performed in the rural area of the Kupang area. The interviewed farmers were selected randomly and their standard of living was varying from families who are hardly have money to eat and somewhat more wealthy households who conduct small agricultural activities.
14/12	Livestock training center Belai Besar Pelatihan Peternakan	The training center is an initiative from the national Government in Jakarta en this livestock training center consists of several buildings. The center provides training for civil servants and farmers so that they can become teachers in livestock management for the other farmers. The center trains to people to manage their livestock and its main focus is to teach them how to deal with the dry land. The center receives its budget from Jakarta and they have around 14 teachers staffed.
15/12	Head of the Usuang high school Kupang, Drs. Martho	The headmaster of the Usuang high school is born and raised in Kupang and has extensive knowledge about the area and the local communities there. He performed its masters in Human resource management and is very knowledgeable in the fields of education and human resources.
17/12	Regency mayor, Mr.	Ayub titu eki is the regency mayor in the Kupang area.

	Ayub titu eki	Kupang regency consist of 27 islands of which 5 are inhabited. With a total area of 5.898,22 square km. In 2008 the Kupang regency was divided into 29 districts and 240 villages.
18/12	Microfinance institution TLM	The micro finance institution Tanoaba Lais Manekat provides since 2007 financial products to those who have no access to normal financial markets such as banks. They institution has 30 employees working in the office and a large number of field officers.
19-21/12	Several farm visits	The farm visits were performed in the rural area of the Kupang area. The interviewed farmers were selected randomly and their standard of living was varying from families who are hardly have money to eat and somewhat more wealthy households who conduct small agricultural activities.