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Creation theory explaining inclusive business development: Case study of a community-operated business venture development in rural Africa.

Abstract: During the recent years interest in inclusive business has increased. Still, research on inclusive business development is at infancy. This study offers empirical evidence on inclusive business development case of community-based entrepreneurial model which occurred under uncertainty in the context of low-income market in rural Africa. This study tests how well the insights of creation theory can explain inclusive business development process. The main findings are that creation theory can be applied to explain several of the episodes of inclusive business development such as opportunity creation (opportunities are created in social interaction), decision making (lack of reliable statistics and previous experiences), strategy (ability to change the strategy flexible and accept potential losses) and sustaining competitive edge (business development is a path dependent). Nevertheless, inclusive business development also differs from the creation theory assumptions mainly due to the strong social objectives of the business itself and strong local stakeholder involvement. This study advances the knowledge on inclusive business development.

Key words: Africa, creation theory, base of the pyramid (BOP), community-operated entrepreneurship, inclusive business

INTRODUCTION

During the recent years, the low-income segment has been recognized as a new market, the base of the pyramid (BOP) market with opportunities for mutual value creation and poverty reduction through inclusive business (UNDP, 2008). Inclusive businesses bring the benefits of growth directly to low-income communities by providing low-income people with access to opportunities for income, basic goods, services and choices and integrating the poor into business models and value chains (UNDP, 2013).

Despite the increased interest in BOP and inclusive business discourse there is still limited practical and theoretical knowledge to guide the inclusive business development (Nakata, 2012; Ansari et al., 2012). Inclusive business development has been explored by using various theoretical lenses common in management and entrepreneurship literature, but due to the richness of the phenomena several questions have remained unanswered (Nakata, 2012). In addition, several practice oriented guide books have been written to advise the corporations and business managers how to manage inclusive business development. The objective of this study is to improve knowledge and understanding of how to manage inclusive business development process. This study advances the understanding of inclusive business development by rising up several questions which business managers must solve when developing inclusive businesses.

In this article I am using the approach of creation theory to test how well it can explain the process of inclusive business development. The assumptions of creation theory might help to recognize the dynamics of the process. Hence, in this article creation theory is used as a conceptual tool to analyze the inclusive business development process. The precise research question is: how well creation theory can explain inclusive business development process. In the context of creation theory especially the aspects of business development, strategy and decision making are analyzed in more detailed manner.

Previous research on creation theory has been more theoretical and focused on concept development. There is a limited amount of empirical cases which have been testing suitability of creation theory to explain business development under uncertain environment. This study aims to bridge this research gap by presenting how a real-life business development process occurs in nontraditional business environment and how well creation theory is fitting to explain it. This study illustrates insights and challenges rather than attempts to be comprehensive. The findings of this study can be used as a foundation for future work to facilitate the process of new business venture creation at the BOP (particularly when implementing a community-operated entrepreneurship model). Empirical analysis of this study is based on following a development process of a community-operated mini-grid solution in rural Kenya. The data was collected between autumn 2010 and autumn 2013.

This paper is structured as follows. First, I discussed on inclusive business, and then I presented the main assumptions of creation theory. Thereafter, the methodological choices are presented followed by presenting the empirical case study, Kudura – a community-operated mini-grid venture. In the findings I consider particularly the business development, local involvement and decision making and strategy issues. In the conclusion part I discuss the contribution of creation theory to inclusive business development. Finally I offer some practical implications and give suggestions for future research.

WHAT IS INCLUSIVE BUSINESS?

The actual definition of inclusive business is still a topic of discussion as in the academic literature inclusive business is not yet well established. The linkages between inclusive business and BOP are also under discussion. In general level, inclusive business signifies a broad umbrella term that contains a number of pro-poor private sector approaches (McMullen, 2011). Some scholars base their studies of inclusive business on the BOP perspective as a strategy or approach (Gradl et al., 2010; Ansari et al., 2012), while others use the BOP as the target market for an inclusive business. In other words, inclusive business means that the poor are included in the business process as producers, consumers or as co-innovators.

Van Tunder et al. (2011) use four key aspects to classify inclusive business, which are: mission, impact, the business case and stakeholder involvement. First, mission means that the business has an active and identifiable approach towards poverty alleviation. Second, impact refers that links between inclusive business and inclusive growth should be visible so both direct and indirect effects of the business initiative are measured. Third aspect, the business case, according to Van Tunder et al. (2011) means that inclusive business should represent an essential part of the firm core strategy and thus deserve sincere company commitment; there should be a clear link to the main activities and core competencies of the firm. Therefore, business and development interests should be integrated and mutually reinforcing. The fourth aspect, stakeholder involvement is recognized as a critical aspect throughout both theoretical and empirical literature as it has been widely acknowledged that successful businesses cannot be created without strong involvement of the local people of the specific target markets (Hart and Simanis, 2008; Weidner et al., 2010). The pioneers of BOP research, Prahalad and Hart (2002) stated that not any firm can entry to BOP markets alone.

Local involvement is seen as a key to gain access to resources as the companies own resources are not enough in this context. The need for partnerships in inclusive business mostly stems from the barriers posed by institutional voids, inadequate, inefficient or lacking market structures, and as a

result of the dominance of informal market mechanisms and governance systems (Reficco and Marquez, 2012). In order to overcome these challenges faced by most initiating players, the capabilities and resources necessary must be developed or leveraged from external sources. Therefore partnerships are crucial for inclusive business in order to stabilize the market environment, fill institutional voids or leverage social capital (Seelos and Mair, 2007; Ansari et al., 2012). For inclusive innovation, such resources could, for instance, include access to local distribution network or sales agents to reach the target customers. In other words, partnerships can serve to complete business models with resources that a company is lacking. Hence, companies operating in low-income markets should above all aim assessing the linkages of their potential partners.

Relating to the actual inclusive business models, there exist various types of them. For the purpose of this article's empirical case –community owned business venture – it is worth of noticing these kind of village-level models, such as mini-grid solutions either run by local entrepreneur, or co-operative or then by a foreign company. The inclusive business development process should adopt more holistic approach similarly as community-based enterprises or community entrepreneurship: it should be seen as a social process of creating and exploring opportunities and mobilizing resources that forms new ventures in the form of activities, services and institutions for the common good of a community (Austin, 2006). Linkages with an economic development strategy and understanding it as a part of broader concept of community development should be considered.

THE BASIC ASSUMPTIONS OF CREATION THEORY

Discovery theory is the prevailing tradition in the entrepreneurship literature concerning entrepreneurial opportunities. According to this view, entrepreneurial opportunities exist, independently of entrepreneurial actions, only waiting to be discovered and exploited by unusually alert individuals.

However, few academics have challenges adequacy of discovery theory. Alvarez and Barney (2007) argue that when entrepreneurs operate under conditions of risk or moderate uncertainty, discovery theory seems most likely to apply, but when they operate under conditions of high uncertainty creation theory is more suitable.

According to creation theory opportunities are not assumed to be objective phenomena formed by exogenous shocks to an industry or market (Alvarez and Barney, 2007). Opportunities do not necessarily evolve out of pre-existing industries or markets (Dosi, 1988). Creation theory suggests that the 'seeds' of opportunities to produce new products or services do not necessarily lie in previously existing industries or markets.; instead entrepreneur's own actions are the essential source of these opportunities. Opportunities do not exist until entrepreneurs act to create them. Unlike the discovery theory assumes, creation theory argues that entrepreneurs do not recognize opportunities first and then act; rather, they act, wait for a response from their actions—usually from the market—and then they readjust and act again (Weick, 1979 in Alvarez et al., 2010).

Creation theory is rooted to the constructionist approach which sees social action, institutions and conditions been constructed through the interactions and interpretations of people (see more on Berger and Luckmann, 1966). In creation theory context this means that opportunities are created, endogenously, by the actions, reactions, and enactment of entrepreneurs exploring ways to produce new products or services. Hence, opportunities are understood as social constructions that do not exist independent of entrepreneur's perceptions; entrepreneur can decide what opportunity to create and

then uses available resources to accomplish the task (Alvarez et al., 2010). However when entrepreneurs act to exploit these socially constructed opportunities, they interact with an environment – the market – that tests the veracity of their perceptions. The market itself is considered as a social construction, formed out of the perceptions and beliefs of numerous other individuals. This endogenous view of opportunities has a variety of implications for creation theory.

IS CREATION THEORY SUITABLE FOR EXPLAINING INCLUSIVE BUSINESS DEVELOPMENT?

In this chapter I briefly present why creation theory might be suitable for shedding light on the inclusive business development process. The empirical case study of Kudura illustrates more concretely the comparison. A more detailed comparison of creation theory, research on inclusive business development and the empirical evidence of this study is presented in table in appendix A.

Untraditional market environment – uncertainty as a principal market condition

According to Alvarez and Barney (2007) creation theory is suitable for business environments which are characterized by high levels of uncertainty. Inclusive business development contains several elements of high levels of uncertainty which companies must tolerance if wanting to succeed. Low-income markets are yet seen as nontraditional and uncertain business environment in which companies are lacking experiences. It is even called a risky place for companies (Rangan et al. 2011). Companies are lacking previous experience from the markets; statistics might be lacking or unreliable. This increases the difficulties to predict consequences of actions and understanding cause-of-effect relationships of activities. Other major challenge is that low-income market as an entrepreneurial environment, especially in the rural context, is characterized as having scarcity of resources; there might be options of entrepreneurship but with minimal access to potentially available resources (Bruton et al., 2008). This resource scarcity makes it difficult to acquire relevant and valuable resources (Seelos and Mair, 2007) which are needed for business development.

When considering the turbulence environment of low-income market, it is no wonder that previous studies on business development targeting the BOP have asked whether business development is a question of market creation rather than market entry (see Simanis 2011; Andersson et al., 2010; McKague 2012). Prahalad (2012) says that the development of markets at the BOP is not only about serving an existing market more efficiently; it is often about creating a new market. Entering the BOP often entails making a new market. Firms are competing against 'nonconsumption'. This means that companies' market-building entail investing at various points in the value chain (Christensen and Hart, 2002). Instead of traditional development approaches focused on building enabling environment from the top-down, the business development is from bottom-up.

Creation theory states that the process of searching for new emergent (market) opportunities, even if it continues for some time, does not necessarily lead an entrepreneur to discover real opportunities for creating economic wealth. This same phenomenon have been recognized in inclusive business development; engaging low-income consumers or producers usually increase transaction costs substantially and might lead that companies have ended their BOP initiatives as they have failed reaching their financial targets and shareholders become impatient with money-losing ventures (Rangan et al., 2011).

To summaries the previous studies, it can be said that BOP segments have distinct features that set them apart from traditional markets. It is widely acknowledged that companies need to fundamentally

rethink their business models, change their innovation practices and acquire new resources and capabilities through unconventional partnerships (e.g. London and Hart, 2004; Austin et al., 2007, London, 2008). Companies that do business with the base of the pyramid need to understand new markets, understand the market behavior of the base of the pyramid customers, appraise new risks and develop new systems, business processes and training.

Market opportunities – waiting to be discovered or need to be created

Discovery and creation theories recognize that opportunities exist when competitive imperfections exist in a market or industry. However, these theories differ in their analysis of the origin of these competitive imperfections. According to discovery theory, opportunities are like mountains, existing as real and are objective phenomena, independent of the actions or perceptions of entrepreneurs, just waiting to be discovered and exploited (McKelvey, 1999). According to creation theory opportunities are not assumed to be objective phenomena formed by exogenous shocks to an industry or market (Alvarez and Barney, 2007). Opportunities do not necessarily evolve out of pre-existing industries or markets (Dosi, 1988). Creation theory suggests that the ‘seeds’ of opportunities to produce new products or services do not necessarily lie in previously existing industries or markets; instead entrepreneur’s own actions are essential source of these opportunities. Opportunities do not exist until entrepreneurs act to create them. Unlike the discovery theory assumes, creation theory argues that entrepreneurs do not recognize opportunities first and then act; rather, they act, wait for a response from their actions—usually from the market—and then they readjust and act again (Weick, 1979 in Alvarez et al., 2010).

The question of actual BOP market opportunities is a debated topic. Depending on the scholar, the predictions of actual market opportunities at the BOP market vary. The basic assumption of Prahalad is that the market is large and the unmet needs are plentiful. Relating to purchasing power, although their individual income is low, collectively their purchasing power is quite large. Moreover, as the poor spend higher prices on goods and services due to the poverty penalty, there is a real opportunity to offer higher quality while maintaining attractive margins (Prahalad and Hammond, 2002). On the other hand, Garrett and Karnani (2010) claim that “there is no fortune at BOP.” According to them, examples of profitable BOP initiatives that operate at a large scale are scarce and reflect the challenges of the BOP approach. The market size is quite small and due the high costs relating to geographical dispersion, weak infrastructure, an underdeveloped market and high costs per transaction, achieving economies for scale is a major challenge companies. The over estimation of the market size and spending capacity of the poor often leads to failure of initiatives (Karnani, 2007).

Particularly for MNCs, the early stages of the business development process require opportunity alertness and recognition (Webb et al., 2010). MNCs have an inability to understand the local culture, customs and norms, and thus the informal institutions. Overcoming institutional distance between home and host markets can be overcome through partnerships. Besides the inability of initiators to understand local conditions as explained by Webb et al. (2010), London (2011) also notes that inability to raise market awareness of the offered solutions is as a major issue. To solve this issue, London suggests taking part of market creation and crafting solution with the BOP.

Business development – elements of social construction

Creation theory is rooted to the constructionist approach which sees social action, institutions and conditions been constructed through the interactions and interpretations of people (see more on

Berger and Luckmann, 1966). In creation theory context this means that opportunities are created, endogenously, by the actions, reactions, and enactment of entrepreneurs exploring ways to produce new products or services. Hence, opportunities are understood as social constructions that do not exist independent of entrepreneur's perceptions; entrepreneur can decide what opportunity to create and then uses available resources to accomplish the task (Alvarez et al., 2010). However when entrepreneurs act to exploit these socially constructed opportunities, they interact with the environment – the market – to tests the veracity of their perceptions. The market itself is viewed as a social construction, formed out of the perceptions and beliefs of numerous other individuals.

Previous BOP and inclusive business studies have acknowledged that successful businesses cannot be created without strong involvement of the local people of the specific target markets (Hart and Simanis, 2008; Weidner et al., 2010) as already mentioned earlier in this article. Relating to the empirical case of this research- concept of a community-based business venture, local people's involvement and commitment are assumed to be even more crucial when developing business ventures which should be owned and operated by the community members, such as mini-grid solution and other forms technological solutions which demand contribution from the whole village level. Mini-grids are usually run either by a local entrepreneur or a village co-operative, but also large companies can be the owners (Gradl and Knobloch, 2011; Aron et al., 2009). What is demanded is that community members act like a community-based enterprise: community acting corporately as both entrepreneur and enterprise in pursuit of the common good (Peredo and Chrisman, 2004). It is not only about building upon those resources which the community already controls, but to harness those that are not yet available for common local development purposes (Kretzmann and McKnight, 1996). The development process can be seen as a social process of creating and exploring opportunities and mobilizing resources that forms new ventures in the form of activities, services and institutions for the common good of a community (Austin et al., 2006; Morris and Jones, 1999). Organizations aiming to develop BOP initiatives must find ways to leverage local bonds, friendships, traditions, and leaderships that form part of the community's social capital (Ansari et al., 2012). Social capital can be understood as a resource linked to relationships between individuals or groups; hence social capital is critical for resource configuration (Alsos et al., 2003).

Strategy and decision making under uncertainty

Creation theory argues that under uncertainty decision making is more heuristic process, based on inductions. Traditional forms of strategic planning can be harmful and perhaps even misleading. Rather than strategy documents, financial projections and customer segmentation analyses, creation theory suggests that strategic plans developed in uncertain settings will be simpler guides to entrepreneurial behavior (Alvarez and Barney, 2007). Instead of documents and statistics, the entrepreneurs need to rely more on their own inductions and hunches.

Low-income market differs from the mature (developed) market perspectives where companies can use various analysis based on previous experiences and statistics. Instead, in the low-income market similar kind of decision-making tools do not exist: enterprises don't have previous experience in which to compare, it might be impossible to collect data from government reports, official statistics are lacking or unreliable. Besides, customer profile information is limited and market environments and regulatory processes often lack transparency, especially for foreign entrants (Gradl and Knobloch, 2011).

The actual inclusive business development might start from zero, and similarly as creation theory understand entrepreneurs behavior, it is all about making a decision to begin forming an opportunity and at the point of a decision about whether or not to try to form an opportunity is made, the information required to know the possible outcomes associated with this decision, and their probability, does not yet exist. In principle, no matter how hard an entrepreneur works, all the information needed to turn this decision making setting into a risky one cannot be collected. Entrepreneurs cannot predict how users will adapt their products or services; entrepreneurs must have the ability the change the strategy if needed. Creation theory even suggests that occasionally objective evaluations should be carried out concerning whether or not the business development process should be continued. This same need for evaluation also fit with the inclusive business development which is a challenging task and a long process (Olsen and Boxenbaum, 2009). Co-operating with unconventional partners, such as non-governmental organizations and informal vendors has been seen as one way to gain access to new capabilities. Still, this might mean high cost if desiring to exploit opportunities which are subject to uncertainty (Naude, 2008). For practical business side, companies might need accept that expectations of cash flow is discounted for longer period or maybe even be willing to accept possible loses (Seelos and Mair, 2007). Due to the financial risks companies might have the temptation to end the development process too early after short-term losses (Halme et al., 2012).

DATA AND METHODOLOGY

Selecting the case and data collection

The actual data collection began during the autumn 2010 and ended during the fall 2013. In the following I describe how the research process began and occurred during the three years period. The research process began during the autumn 2010 when I went to Kenya to conduct my empirical research. The interest was to find interesting inclusive business cases in which the local community is strong involved. I analyzed several potential cases such as a bee-honey farming in village level and UN led initiatives, such as energy kiosk development. During my pre-selection process, I met a Portuguese-South-African man whose intention was to develop a profitable rural electrification concept. At that moment (November 2010) he was on field trip in Kenya and Uganda evaluating similar kind of concepts of community-based ventures and technological solutions. He was also visiting number of communities as he was searching for suitable community where to set up the pilot. His concept sounded very interesting and I had a long discussion and an informal interview with him during our joint field visit to one of the UNIDO's energy kiosk in Kirinyaga. I was then thinking that his venture –if it was about to see daylight at some point- would an interesting case for my research purposes.

During the year 2011 I was in contact with entrepreneur via email and got updates how his technology development process back in Portugal went on. Again during summer the 2011 until the end of the 2011 I went back to Kenya to continue my research. This specific business-venture had progressed significantly. The entrepreneur had chosen the suitable community in which he could run the pilot, hired a local expert to facilitate him with all the practical arrangements. It was in October that he told me that he was waiting the products to arrive to Mombasa harbor and finally to the final destination Sidonge, community in West-Kenya, which was chosen for the piloting case. The entrepreneur was eager to start to build the actual site. We agreed that when the construction work is

near to be finished, I will visit there. This visit happened around mid-November. During the trip I made several interviews with the entrepreneur, local expert, his team members, first clients, community members, community chief. With the entrepreneur and his team, I discussed the construction process, the business model development and the interaction with the community. The community members explained me their expectations, their commitment and their plans how to manage the business, both operationally and official governance. The first habitants of receiving electricity, were also visited. I used a translator during the field trip and recorded discussions. In addition, photographs and short videos were taken.

In total, the data consists around 15 interviews and observing (see appendix A for further details). After the site visit in November 2011, I re-interviewed the local expert in May 2013 in Nairobi and the entrepreneur via email during the autumn 2013. In addition, secondary data sources are used, such as the company's website, few newspaper articles, and press releases (eg. Siror, 2011; PR.com, 2012; ARE, 2013). The founder himself is actively updating the news of Kudura in different social media channels, such as writing blog, facebook page, downloading videos to youtube and email correspondence. Hence, data has also been collected in a non-systematic manner though informal personal communications. This long research process have given me an opportunity to follow-up the case from the beginning of the development, this would also give me good possibilities for further research to follow-up the progress.

Data analysis

In the beginning of the empirical research project resembled a grounded theory approach. A grounded theory approach (Glaser and Strauss 1967) suggests that in the initial stages of research a pre-defined theory is not recommended. A case study involving the use of a grounded theory approach requires that the theory "emerge" from the data. The primary aim is to construct theory from the collected field data.

In this case, at the same time when I was collecting data, I was reading previous studies on inclusive business development. Due to the fact, that the research collection process lasted around three years, I was going back and forward between theories and my empirical data. I was searching for theoretical framework which would match my own observations from the field and the other document inclusive business study cases. I came across to creation theory and noticed immediately several similarities. The major issue was the uncertain condition which affected the business development which is strongly emphasized in creation theory. This element of uncertainty is also a major factor affecting the inclusive business development process. In fact, this uncertainty might lead to that companies are not interested in taking the risks or terminating the product development in early phases. I recognized similarities with creation theory and therefore I re-begin to analyze the data. I recognized tentative themes emerging from the fieldwork and compared and contrasted them with the literature of creation theory. Hence, the research process begun to resemble theory testing; systematically compare and contrast theory and data, iterating towards a theory that accurately reflects the data. I was now searching for key elements of the creation theory, coded the data again.

Level of the analysis is from the entrepreneur's perspective; how he proceeded and what kind of choices and changes he made during the business development. Nevertheless, as the case is a community-based organization, it is necessary to consider also the community's perspective.

CASE: KUDURA – RURAL VILLAGE ENERGY HUB

KUDURA is an energy hub: a mini-grid solution which provides communities 5kWh/day solar energy. Besides solar photovoltaic plant, a biogas and organic fertilizer plant a water purification plant and a central monitoring system for oversight the hub. The system is a scalable, self-contained, integrated and stand-alone rural energy solution. Typical installation require less than 24 hours until 'switch-on'.

Kudura concept is own by RVE.SOL, Portuguese company. RVE.SOL financed the pilot project, which started in 2011 and the total cost was about 87,000USD. The purpose is that Kudura is purchased by governments, NGOs or private business. Then communities or businesses pay for the energy and water services as they would from any other utility provider. In their pilot site in Sidonge, electricity is provided to 20 homes on a pre-paid, flat-rate, night-time basis for lighting, mobile phone charging, and powering radio and TV. In addition, an entrepreneurial kiosk is provided for charging mobile phones and hair cutting. (Time line of the development process of Kudura is shown in appendix B.)

FINDINGS

In this findings chapter, the inclusive business development process of Kudura is presented as a case example demonstrating the managerial choices relevant to inclusive business development in the context of creation theory. Particularly the following aspects are discussed: starting process of the inclusive business development (solving wicked problems), local community involvement, decision making (tolerance for ambiguity) and making use resources at hand (financial and human resources).

Starting process – jump from steady incomes into solving wicked problems

Creation theory emphasizes that the initial business development depends on entrepreneurs' initial beliefs and opportunities do not necessarily evolve out of pre-existing industries or markets (Alvarez and Barney, 2007). This is true with the Kudura case; the entrepreneur had a strong social mindset: willingness to tackle challenging problems. The idea of providing access to energy came from the founder himself. He had a social mission in his mind: how to reduce poverty in Africa. He felt that lack of access to energy is one the main factors which hinders development. Another main motivator was that he did not believe in charity, he strongly felt that charity approach was not a sustainable answer. He began to develop ideas how to offer access to energy for the rural communities, off-grid solution. The entrepreneur began to take action to form opportunities. Similarly as creation theory argues, the entrepreneur was not searching for 'ready-made' business opportunities, instead he began to form opportunities by himself, by his own actions. He was willing to leave his own comfort zone and take a huge jump into industry and business environment which were strange for him.

The founder of the business venture had previously made a successful career in ICT industry and ultimately sold his company. After selling his company successfully, he felt that now it is his time to give back to the society. Been half-African himself (having some South-African blood) he felt 'African blood in his body' therefore wanting to dedicate his energies to work with those developmental challenges that Africa is facing. He felt strongly that development assistance has not reached its goals and the involvement of more business-mind action would deliver better results. The founder had some kind of vision in his mind when starting to develop the concept. He had studied very broadly 'poverty alleviation literature', energy statistics, and previous experiences on BOP businesses and investigated why charity projects often fail to reach the target. These studies gave him insight what business development at the BOP requires. He also became more convict that access to energy plays a crucial role in poverty alleviation. Hence, he then began brainstorming possible business solutions and came

up with the 'rural electrification concept'. In May 2010, as he says he decided to dedicate his career to 'Changing Rural Life Forever'. He started to spend countless amount of time in the field. He travelled regularly to East-Africa to visit communities whom he could work with getting familiar with local context and building trust.

He searched for the right piloting community for several months and visited around forty different communities in Kenya, Tanzania and Uganda. He used the following principles when selecting suitable site:

- profiling the area in general focusing on different needs
- community level of support
- local leadership response and commitment
- district development response
- scoping the needs versus population in baseline survey

Finally he chose the pilot to be placed in Sidonge, a small community in western part of Kenya, bordering with Uganda and near goes River Sio which flows into Lake Victoria. The population is around 600 people, 104 families. The site was selected due to its close proximity of river and lack of electricity in the community. Other key reason why this particular site was chosen that the entrepreneur felt that the community members had a certain 'community spirit': positive energy, they were willing to embrace change and adopted a business mind set and also agreed to make a land lease agreement. Similarly as some BOP scholars the entrepreneur believed that strong community relationships are essential when beginning to build a BOP initiative; it might be easier to coordinate the activities within the community members. Maintaining the bonding social capital may seriously impact the BOP community (Ansari et al., 2012).

Local community involvement key of business model – importance of social construction

KUDURA is a community-operated business. The founder felt that foreign aid projects often fails to deliver results due to the lack of local ownership. He wanted that business venture would have a strong sense of local ownership. In other words, the purpose was that the community would own the venture, so he did not want too strongly guide the actual management of the Kudura. It was clear from the beginning that at some point the whole operational management responsibility would be given to the community. Concurrently he analyzed several on-going efforts on community-based ventures and benchmarked existing technical solutions. With this background – combining theoretical and statistical studies and empirical knowledge from the field - he was designing business strategies on how to establish a community-based venture.

In Kudura, the community is deeply involved into the business development process. The entrepreneur wanted to respect the social capital within the community by allowing the community members themselves to take the lead in the management. He aimed to build the management system based on the existing ties in the community. He aimed to use to community as a source of knowledge by allowing the community members to build the management system that is acceptable in the community and respect the community traditions.

The table below presents what kind of community-operated model was built around the pilot site, Sidonge.

INSERT TABLE 1 HERE

Tolerance for ambiguity

Creation theory states that decision making is done based on entrepreneur's own inductions and hunches due to the fact that analysis, statistics and previous experiences are lacking. Ambiguity exists in decision making where the information available does not allow the inference of clear, unequivocal meanings and conclusion. Ambiguity is common to the fast-paced decision-making contexts that invite intuitive decision making (Blume and Covin, 2011).

This was also true with Kudura case. The entrepreneur faced several unfamiliar elements which made the decision making process challenging: he had entered new business field (from ICT to renewable energy), from new market environment (from Western market to developing country) and to new cultural environment (from Europe to Africa). He could not benefit so much from his previous business background; instead he needed to learn everything from zero. Due to the fact that he was not living in Kenya (or other part in Africa), only visiting there regularly, he needed to rely on other people's inductions as well. His local expert played a significant role acting as an interpreter and explaining the local behavior and guiding the entrepreneur how to set up business in rural Kenya. Based on this information, the entrepreneur constructed an image of the environment where he was doing business.

Kudura aims to develop a sustainable business model by which it means three things: i) the technology works in African environment, ii) can demonstrate tangible and measurable social impact and return on investment and iii) the rural villages are willing to purchase the services. In particular this means that Kudura's business strategy, or strategic choices included several components: attracting investors to expand the business into different locations, improving the living conditions of the particular community and managing the business at the community level. Perhaps the challenging was to build an operative management structure for the community level. As the concept was pioneer and therefore no previous experience to compare it with, it was only possible to make some assumptions how the people would act when receiving electricity. The entrepreneur recalls one event that occurred in the beginning when the first people of the villages received electricity:

' based on calculations [how much electricity the solar panels can produce] we had given very specific instructions to the people how much electricity they can use in one evening [for lighting and recharging batteries] so I was very surprised when the following morning all the batteries were empty. I wondered what has happened. I was told that few village members start to rechargers neighborhoods mobile phones for the whole night to earn some money. Naturally the electricity was not enough for that kind of heavy use'. – the founder

As Alvarez and Barney (2007) argue that entrepreneurs may have hypotheses about how a market will react to their efforts, but rarely will entrepreneurs be able to see "the end from the beginning." This was true for Kudura as they were no previous experiences to compare with, the team needed to willing to act and reacting based on experiences. Together these two people, the founder and the local expert,

planned how to catalyze the business venture over the initial process. When the founder was absent, the local expert monitored how Kudura concept was moving on.

They were forced to change their original plan based on the realities how the community members acted. The following example illustrates this kind of behavior:

'So the concept includes that people can buy purified water. The assumption was the people would be willing to pay little to get clean water and no need to go and carry it from long distance. Well, how people behaved did not go as we thought. People were not eager to buy water. One old man told that he rather use unclean water and saves to money to buy some fish which has proteins. Asking why he said even if using polluted water gives a diarrhea, they can go to the public health center which offers medicine for free.' – the local expert

These unexpected user-behaviors, forced Kudura to change its concept few times. When it became clear that people were not willing to pay for water, they rethought whom to sell the water. They changed their focus groups and begun to sell the water to restaurants and other offices located in the near-by communities.

Opportunities cannot be understood until they exist; and they only exist after they are enacted in an iterative process of action and reaction (Berger and Luckmann, 1967; Weick, 1979 in Alvarez and Barney, 2007). Similarly as creation theory is suggesting, the entrepreneurs behind Kudura were able to adopt a flexible decision-making that was adaptive to the changes based on the new information and knowledge that was created through the enactment process (Garud and Kotha, 1994). The business development resembled: acting and reacting, entrepreneurs enact the opportunities they ultimately exploit.

Using resources at hand: finance, HR and technological development

Building inclusive business initiatives take long time. Securing sufficient resources for the development and scaling up process might be a problem because the payback time is longer than in most high-top markets business development processes.

The pre-venture process of the Kudura included activities, such as building workable technological solution, searching for initial funding, organizing a team and finding key partner. As a true entrepreneur, he was also responsible for constructing the technical solution. His friend owned a company that produces renewable energy technologies, namely solar panels; that was the starting point. As the idea was to create an 'energy hub' the company searched for other possible technology companies to provide a composite product that runs concurrent renewable solutions eg. energy, biogas and water. The founder wanted to find durable solutions that would last long and can resist hard conditions. Still, the technologies needed to be easy to maintain. The challenge was how to combine all these solutions into one package which to offer ultimately for the end-client (rural African communities). For this purpose, he used his own farm in Portugal to the construct the energy hub and test how it was working and making modifications when even possible. This testing period lasted around six months.

One of the major concerns of inclusive business development is how to make it financially sustainable. Similarly, the long development process of Kudura could not have been possible without sufficient financial resources. 'Bootstrapping' is a common way to finance activities especially in the

early beginning. In 'bootstrapping,' entrepreneurs finance activities from their own wealth or from the wealth of those with whom they are closely associated. In the Kudura case, besides the founder own investments, he also had people in his own network who were willing to invest in the venture. He was also able to reach some seed finance for Kudura Kudura. Participating in business competitions and searching for impact investors is a common way of expanding financial resources for inclusive business development. Ngoasong et al. (2015) even argue that inclusive businesses have access to a sea of venture funds that would otherwise be difficult to access through traditional funding sources. So far the founder of Kudura has been able to use previous success as an entrepreneur and persuade external investors to invest in Kudura although the market was new as well as the technology and business model at testing phase. The founder has been actively visiting different international exhibitions and other meetings to market Kudura and building new partnership. Kudura has received few bigger grants which will help to expand its business across Africa. Nevertheless, at this stage it is too early to predict how the scaling up will eventually occurs who will the future buyers of new Kudura units.

Another major issue was to find people who can participate to the business. Some of the investors became key members of the entrepreneurial team. Hence, as for human resources he used his own existing networks to find talented people. For example, one of the technology providers came directly from his pre-existing networks. Nevertheless, assembling an entrepreneurial team is not enough in the context of inclusive business development. The need for building local partnerships and networks is crucial. As the Kudura founder was operating in unfamiliar context, it was essential to find good local people who could assist him. He chose couple of local partners whom helped him with the practical issues relating to setting up business in East-Africa, assisted arranging community visits, mobilizing support from locals and identifying strategic site for the pilot project. As the pilot site was selected, he began to build a strong relationship with the Sidonge community; the self-help group and community chiefs became his 'colleagues'. For operative activities, it was necessary to hire a local vendor. This was done by official recruitment process. Later on the entrepreneurs expanded his team by attracting an experienced person of rural energy to join the team. This person was found via LinkedIn.

DISCUSSION

The purpose of this study was to analyze whether creation theory can be used as a theoretical framework to explain the inclusive business development process. In this final section, I discuss how my findings advance the current understanding of inclusive business development and summaries how well creation theory can explain it. Finally I consider practical implications of this study and finally give suggestions for future research.

Contribution to inclusive business studies

It is possible to conclude that creation theory and inclusive business development have several similarities. First, it is worth of noticing that creation theory is said to be suitable in high uncertain environment. Inclusive business development occurs in untraditional market environment, targeting the BOP markets. Companies rarely have previous experiences from business development, hence it is often seen risky and demands high level of tolerance for uncertainty.

Secondly, the question of whether opportunities are created or discovered is debated topic in inclusive business studies. One of the key arguments of creation theory is that opportunities are created instead of recognized. Opportunities are created, endogenously, by the actions, reactions, and enactment of entrepreneurs exploring ways to produce new products or services. According to the

findings of this study, inclusive business development requires similar kind of entrepreneurs' endogenous actions and reactions to develop new solutions to serve the poor. Potential market might be huge, but turning possibilities into actual business, resembles creation process which is often relying on the entrepreneur's own abilities and choices. Companies might have the desire to end inclusive business development initiatives as the time period for profit is too long.

Thirdly, decision making has similarities with creation theory. Unfamiliar market environment where inclusive business development occurs, means that common decision making tools (statistics, customer surveys, demographics) are not available. Business developers might be forced to follow their intuition, rely on the opinions on their local partners and most of all, have the ability to change strategy based on consumers' behavior. Business development occurs according to the market behavior.

Fourthly, the role of local partnership and networks is crucial in inclusive business development. Although creation theory does not emphasize the roles of partners, it states that business development is socially constructed. Similarly, inclusive business development cannot occur without constantly observing and communicating with local community – whether they are involved as clients, producers, or business owners.

Lastly, creation theory emphasizes that sustaining competitive advantages relies on the fact the business development is a path-dependent process. This seems to be true in the inclusive business development and due to this, it is difficult to copy: entrepreneurs own decisions and choices influences significantly to the outcome. This means that the process evolves differently for different entrepreneurs and business models are costly-to-copy and costly-to-reverse (Alvarez and Barney, 2007). Competitive edge depends significantly on the business owners choices and work and cannot be copied easily. Inclusive business development demands commitment and involvement of the local people and bonding social capital. When developing community-operated business model, as Kudura, social capital is even more crucial and building it takes long time period. Endogenously catalyzing community-entrepreneurship demands taking care of all the aspect of business development; being responsible both for technology and business development and at the same bonding social capital within the community-members. It does seem that inclusive business venture's competitive edge depends on the entrepreneur's own actions. This also means that inclusive businesses are difficult to scale up, particularly if the case is a community-operated entrepreneurial model which demands deep involvement with the local community; it is necessary to create trust-based relationship with the community and this takes time and effort. These (relationships) cannot be scaled up to a different region, instead each case the situation is unique. Inclusive business development depends on the company's (or the entrepreneur's) competences and repertoires.

Although there are several similarities with creation theory, it cannot explain the inclusive business development process fully. Major difference to creation is that the social aspects of inclusive business. Hence, the actual business case itself sets more demands for the business development: solving wicked problems. Inclusive business is based on the idea that business activities “can contribute to the long-term goal of poverty alleviation by embedding the neglected poor parts of the world population into efficient value chains and market structures, both as consumers and as producers or distributors” (Hahn, 2012). Metrics of the success of business strategy is not purely calculated by using financial analysis, instead is essential to build new metrics which also recognize the social (and ecological)

impacts of the business. In the Kudura case, a baseline study was carried out before launching the venture and purpose is to follow up the impacts.

Inclusive business development requires strong involvement of the local stakeholders. This is something that is not so strongly emphasized in the creation theory. Creation theory recognizes the role of human resources, for example, entrepreneurs way of recruiting people from pre-existing social networks and the role of social construction in business development. Nevertheless, in inclusive business development case, the co-operation is one of the key elements of business success and sometimes out of the hands of the entrepreneur. When endogenously catalyzing entrepreneurship in unfamiliar context it is necessary to have local people who will act as interpreter between the entrepreneur and the community. In addition, it is essential that the local community members are implemented fully to the venture. As in the case of Kudura pre-existing networks were critical for the entrepreneur to support his venture, both financially and spiritually. Also in the case of decision-making, own inductions were not enough; again local interpreter was needed who can explain the actions and reactions of the community members. The entrepreneur needed to accept even more uncertainty and the fact that he cannot control the business development process by himself, instead he needs to rely on the other people and their expertise. Moreover, in the case of community-entrepreneurship, the local community needs to have a feeling of ownership.

Practical implications

Different practitioners' guidebooks have been written how to develop inclusive business and design inclusive innovations. These guidebooks give concrete advices how companies can begin their own inclusive business development. This study, instead of giving practical recommendations, improves the knowledge how opportunities are turned into business and how (inclusive) business development is managed. Managers need to find alternative decision making tools, adopt a flexible strategy and adopt an ability to make changes in their strategies according to the market behavior. Creation theory mentions the idea of 'acceptable losses' which also fits well to the inclusive business development reality.

The element of social construction of inclusive business development cannot be underestimated. As it has been mentioned several times in previous BOP studies, it is essential to find good local partner who will act as interpreter.

The empirical case example, Kudura illustrated the business development of a community-owned mini-grid solutions which are becoming more common especially in the rural Africa. The lesson learnt is that community-based ventures are hardly ever an easy task to implement. Generally, the overall designing of the entrepreneurial models require thinking about the basic funding, setting up and creating suitable governance structures. Hence, community-entrepreneurship in poor environment also requires some external support especially in the start-up phase relating to question of initial investment, technical support and capacity building. Nevertheless, when external actors are involved in the initial process, the challenge can turn to be that the sense of local ownership is vanished. Past experiences have shown that without local ownership even the most innovative arrangements are in danger to fail. The starting point should be the community's own willingness to take the commitment and responsibility, hence having the right community spirit which will then lead to common efforts and activities.

In this study I followed the venture creation launched by a foreign entrepreneur. Nevertheless, it can be assumed that the leading agency could be also a MNC, some economic development agency or perhaps even a the community itself. The critical point is that there is someone who plays an active role in community regeneration by sensitively suggesting and promoting enterprise development ideas. In order for the venture to be created, however, an identifiable group must coalesce around a potentially viable business opportunity. In other words, the idea for the venture may be promoted from outside the community, but the plunge decision must be made by members of the community. It is likely to be made when the enterprise is controlled and managed by volunteers and relationships are based on trust. The importance of trust in early commitments and agreements supports the notion that community-led regeneration through social venture creation is an embedded process. This was also found by Peredo and Chrisman (2004) who noted that the ideas for community-led social ventures are embedded in the community and then adapted to the creation of business opportunities.

Suggestions future research

This study is one the early attempts to analyze whether creation theory is suitable for explaining inclusive business development. Several similarities were recognized as well as differences. Still, I strongly argue that constructionist approach of creation theory which emphasize the interactions and interpretations of people is well explaining how inclusive business development occurs in practice. The interaction with the market, companies and entrepreneurs ability to change strategies and make decisions in the turbulence low-income market is a research area which should be studied more. This kind of research insights would provide more guidance to companies, both large and SMEs, seeking to engage with inclusive business.

Concerning the specific empirical case of this study, analyzing the business development process of Kudura, to evaluate objectively the socioeconomic impacts and financial sustainability of the business venture, longitudinal research is needed. In fact, in general as BOP studies are still at their infancy stage, they are lacking the long term perspective to evaluate the successfulness of the ventures both in financial terms and impacts in the communities. Therefore, it is strongly recommended to conduct longitudinal studies. In these studies it should be analyzed whether the BOP ventures have been able to be replicated into new geographies and adapted to different local context. The purpose is that after few years, I will conduct a follow-up study to analyze how the Kudura (business) concept has changed, has it been successfully scaled up to different locations and what has been the socioeconomic impacts.

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Table 1 . Local community involvement

Involvement	Definition
Forming the governance structure	
Community board	Chief administrator was inspirational in ensuring mobilization of village elders who in turn brought locals together. The meetings were held regularly led by the Chief. Deliberations in the meetings basically involved the formation of a community group that will be involved in co-management of the project. The group was formed and registered with district social services department. Leaders were also elected to steer management. The elected leaders formed a community committee that was originally tasked with overseeing the project with assistance from local Chief. The committee would also be involved in mobilizing resources from the locals registering of new members and overseeing project plan at various stages of implementation.
Community members managing the business	All the members which the entrepreneur hired to build the energy hub were local people. The entrepreneur himself supervised the construction. It was also consider whether the registration fee (2,500) could be paid as labour force. This is also a form of capability increasing and deepening the feeling of the ownership. Later on community members are taking the full responsibility of operating the business, but they can asked advices from the local expert and from the founder
Forming and registration of self-help group	The requirement before being part of the project was that a community self-help group must be registered with government. The community in Sidonge was supportive and they registered a self-help group and pooled resources together despite their poor standard. The group has elected leaders who are now involved in the management of the project under a community committee recognized by government.

Commitment of the community	
Financial resources	<p>Each household who intended to receive the electricity pays 2,500 refundable registration fee, electricity cost 380Shk/month, everyone is encouraged to register as members of the self-help group (100Shil). The money would be pooled in a 'Table-banking' pool. Members who register and contribute to the pool are eligible to loan which are paid back with interest. The collected amount helped those members with little financial access to pay initial Ksh 2,500 as registration fee for electricity.</p> <p>Community banking groups are functioning well in the village and they are trying to generate income so more people could take advantage of the benefits</p>
Leasing land	<p>The land is community-owned (released from a village elder) and the site has been leased to Kudura for a period of five years. When the five-year period ends the project can also be extended to a further five years or more depending on the lease agreement at the time.</p> <p>The contribution of the village elders was essential that the whole community had positive attitude towards the venture</p>
Social resources	<p>Before the installation, the community members in Sidonge made all the arrangement ready independently: cleared and fenced, gates ready for mounting. By the founder came to site (with the hub) the actual installation occurred rapidly.</p>
Community members as clients and work force	
Clients	<p>Due to the limits of the energy production, electricity can be offered to 20 households. Nevertheless, fertilizer and purified water are sold to other community members as well. They also can use the site to run business services. To ensure financial sustainability and commitment, all the members register to the self-help group by paying 100shi as registration fee. Then they are allowed to use the services brought about by the renewable energy project.</p>
Work force	<p>Kudura aims to provide income generating opportunities for community members. Besides working as a labour during the construction work, Kudura employees an energy vendor, watchman and provides opportunities for small business, such as a hair cutting service where the entrepreneur pays monthly fee for the electricity.</p>

APPENDIX A. Comparison of creation theory to previous studies on inclusive business and empirical evidence from the case study

Managerial aspects	in creation theory	Evidence from the data	In inclusive business development
Conditions of business development	High levels of uncertainty	<p>Unfamiliarity with geographical market (rural African business environment)</p> <p>Entering to new field of expertise (from ICT to renewable energy)</p>	<p>Institutional voids: lack of intermediaries and formal institutional support in the product, labor and capital markets</p> <p>Poor infrastructure</p> <p>Lack of market knowledge</p>

Role of strong leadership	Leadership likely to emerge based on the leader's experience in managing the enactment process; Ability to inspire creativity and dedication	The founder dedicated his career for the venture Previous entrepreneurial experience: had the skills to persuade and convince investors Mindset: strong passion for alleviating poverty	Social aspects of business emphasized Social entrepreneurs common Ability to convene people from various sectors: funders, local people, clients/innovators, own family
Decision Making	Based on heuristics or biases using an inductive, iterative or incremental process; Tolerance for 'acceptable losses' to judge the downside associated with engaging in entrepreneurial actions	Relied on his own induction Done his 'homework' well Relied on local experts knowledge and allowing community members to take the operative management	No statistic available or previous experience: difficulty to run normal marketing study If external funding available, showing success at early stage to get funding for the next stage Inclusiveness difficult to evaluate
Strategy	Strategic plans are seen as simpler guides to entrepreneurial behavior which are only suggesting the general direction The specific business may change dramatically over time; important to have investors that are flexible and willing to accept changes that the entrepreneur might make during the enactment of an opportunity	Strategy had several features: Attract investors to scale up the business <ul style="list-style-type: none"> - ROI calculation, strategy documents Improve the living conditions of the community: tripl-win solution <ul style="list-style-type: none"> - base line studies, social and environmental impact assessment Managing the business at the community level <ul style="list-style-type: none"> - flexibility to make changes accordingly to the user-behaviour - difficult to predict 	Business aiming at mutual value creation (with the poor): Measurements for social/environmental impacts needed Profit expectations from the shareholders
Finance	'bootstrapping'	initial from own financial resources and close network Access to seed funding	Lack of formal capital Impact investors Aiming to build self-sustained growth

Human resources	Hire individuals with broad human capital Recruiting from pre-existing social networks and a great deal of flexibility	Applied and received funding from international finance instruments Participated in business competition challenges to receive award money and gain publicity Used his own network for establishing the main team Searched for skillful local expert/s to deeper local knowledge and get things done in unfamiliar business environment Identified external knowledge/expert through social media network Engaged community members to operate the business and trained them	Lack of trained labour force Companies must be willing to train their own employees Aiming to create workplaces and increase income
Local involvement	Not emphasized in creation theory (OBS. The role of social construction)	Local involvement; community members formed governance structure and local operative management, local expert, trained village habitans to use the solution	Significance of partnerships: gaining access to resources; co-creators, producers, clients; Building unconventional partnership
Marketing	Marketing mix	National and geographic level: <ul style="list-style-type: none"> - Exhibitions - Social media - Business venture competitions - Sidonge site serving as a demonstration site Community and local level: <ul style="list-style-type: none"> - Word-of-mouth marketing within the community: getting more clients - Demonstrating the benefits (biogas, purified water, access to electricity) 	Concerning both at the BOP market and within the company to give resources for the inclusive business development 'Mouth-to-mouth' Formal channels Building trust BOP not a homogeneous market and consists of different market segments having different needs For foreign initiative: understanding local culture
Sustaining Competitive Advantages	relying on path dependent tacit knowledge: unlikely that any potential competing	Dedicating fully himself for the cause Commitment and involvement of the local people key: <ul style="list-style-type: none"> - bonding social capital - engagement with 	Scaling up the challenge Self-sustained growth

	entrepreneur will know the creation process	community Technology and business model occurring simultaneously and tested in African conditions Scaling up: personally networking with various partners, searching for new sites	
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APPENDIX B. Informants for the research

Respondent title	Organization or position	Interview & other information dates
Founder	Rural Village Energy Hub (RVE.SOL)	Interviews, discussions and e-mail correspondence between Nov.2010-Dec.2013
Local expert, Founder of CABE	Centre for African Bio-Entrepreneurship	Interviews, discussions and e-mail correspondence between Nov.2011-Dec.2013
Renewable energy expert	UNIDO, Kenya	Nov. 2010, Oct. 2011
Team member	Working for RVE.SOL, responsible for social and environmental impact assessment	Nov. 2011
Village elder	Sidonge A	Nov. 2011
Village elder	Sidone A	Nov.2011
Community chief	Sidonge A	Nov.2011
Community vice-chief	Sidonge A	Nov.2011
Chairman of the Self-Help Committee	Sidonge A	Nov.2011
Treasurer of the self-help group	Sidogne A	Nov.2011
Client of KUDURA (old lady)	Sidogne A	Nov.2011
Client of KUDURA (family with children)	Sidogne A	Nov.2011
Construction workers at the Sidonge site	Sidogne A	Nov.2011

APPENDIX C. The development process of Kudura – the development process (between May 2010-May 2012)

Time period	Activity
until May 2010	Analyzing the global poverty problem and thinking of what he could to improve the situation Identifies lack of energy as one of the major concerns of poverty The founder starts the create the idea of 'Changing Rural Life Forever' and decides to dedicate his career for this cause
May 2010-May 2011	Searching for the right pilot site (and installation places) in Easter-Africa, esp. Kenya and Uganda

	<p>visited more than 40 communities, Sidonge was chosen</p> <p>Technology development and searching for technical partners</p> <p>Prototype testing (in his family farm in Portugal)</p> <p>Consumer energy demand cycling</p>
June - August 2011	<p>June 15th: first two units are sent from Portugal to Kenya (harbor at Mombasa)</p> <p>Self-help group applies for electricity generation and distribution permit</p> <p>Site in Sidonge is cleared and fenced, gates ready for mounting, first poles erected (used telephone poles from the Kenyan Telco are used as electricity poles)</p>
September - November 2011	<p>Shipment arrives to Mombasa (September 14th) 2</p> <p>KRA VAT and Duty Exemption are approved</p> <p>Letter from Ministry of Finance: exempting KUDURA from import taxes</p> <p>Letter from the Ministry of Industrialization and the Kenya Bureau of Standards: Kudura accepted to be officially in Kenya</p> <p>(Pre)-Installation in Sidonge begins</p> <p>(local) Energy vendor recruited and his training begins (with the help of visual training materials which are already prepared)</p> <p>KUDURA selected as a name: 'power to change' in Swahili</p> <p>Receives 337,000e seed funding</p> <p>Shipment should be cleared of custom and sent from Mombasa to Sidonge (31st Oct)</p> <p>Kudura arrives to Sidonge</p> <p>Pilot running in Sidonge: Turned on first lights, potable water</p>
December 2011-March 2012	<p>Kenyan Ministry of Public Health and Sanitation tested the water purification system: 'water is fit for human consumption'</p> <p>Seccua GmbH (which provides the ultra-filtration technology) gives USD 6,000 donation to the next installation</p> <p>Modification for the equipment's, testing biogas production and burning</p> <p>Clean biogas is produced from now on and first customers for that</p> <p>UNEP Sustainable Innovation Expo/GMEF: one of fourteen companies showcasing in the expo</p> <p>Funyula District Development Committee visits KUDURA: continue to support the project</p>
May 2012 and onwards	<p>Was awarded a grant by QREN (National Strategic Reference Program) by the Portuguese government (and funded by the European Union) amount of 370,000e for market development , special focus on Kenya, Tanzania, Uganda, Angola and Guinea Bissau</p> <p>Feira Ambiente exhibition in Luanda, Angola showcasing Kudura outside Eastern Africa and establish a partnership with an Angolan company ESTPOR</p> <p>Continue managing Sidonge pilot</p> <p>Searching for new sites, selling RVE units</p>