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Explanatory power of internationalization theories

A case study of Norwegian SMEs targeting developing
countries

MSc in Innovation and Entrepreneurship

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Abstract

Theories on the internationalization process of firms have been developed by researchers over many decades. These theories have been affected by the present time, their origins, and the given firms in the research.

Physical distance is no longer an issue, and internationalization is these days almost a necessity for a specialized SME when its domestic market is threaten by global competition. Today, more firms internationalize and they do it more rapidly than before. Influenced by authorities or their networks, going abroad has become easier. Therefore, the research problem we express is: *“The problem is that, given globalization, the theories available to explain the internationalization process by SMEs are hardly applicable today.”*

Access to energy is a driver of development and plays a central role in both fighting poverty and addressing climate change. The United Nations (UN) and several other organizations are offering significant funds for carry out renewable energy (RE) projects in the developing world. These developing countries represent a huge emerging market that is an attractive target for foreign international firms. But it is also a risky market given instable regimes and an absence of regulations and institutions that constitute barriers for foreign investors.

Both firms in this study offer PV technology, and their main market is in Europe. Both firms also have experience targeting developing countries. The result of the study shows that the explanatory power of the theories presented here need modification to be valid in times when the circumstances of firms change constantly and significantly.

Keywords: SMEs, internationalization theories, international entrepreneurship, developing countries, emerging markets, renewable energy, PV solar, CSR, FDI

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Both authors wish to express their love and gratitude to their beloved families for their understanding and support through the duration of their studies.

Moreover:

I dedicate this thesis to my wife and three children, who have always supported me and accepted my absence due to my studies. – Torbjörn

I dedicate this thesis to my parents, for their constant encouragement, love and moral support.
– Dariusz

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1 Introduction

1.1 Background

During the last decades, the globalization of firms has become more common as greater numbers of firms internationalize, and the speed of the internationalization process has accelerated. The way that firms internationalize is now more differentiated, and firms choose different strategies for entering the international market. Some firms target the entire world (born global), while other firms remain domestic and implement one or a few international projects abroad (Axinn and Matthyssens, 2002).

The rapid globalization occurring throughout the world is both a result and an effect of market-pull and technology-push forces. Customers are not longer locked into a local supplier and can search the global market for suppliers to meet their needs. The Internet also gives customer the opportunity to connect, discuss and continuously forward their evolving needs to relevant parties.

Moreover, technology providers have new tools, both for cooperating cross the borders and for accelerating production. To be first to market is the main issue, and when faced with global competition, firms must specialize to offer the best products or services. These new circumstances enhance the possibilities for niche SMEs, and make them attractive for cooperation with larger firms that can, in return, contribute their financial resources, networks and well-developed delivery chains.

Today, the world is also less regulated than before. Trade barriers have decreased, managers has more influences due to flatter hierarchies in organizations and in inter-business relations. The trade of business first increased through exports and the shipping of products around the world. Since the IT revolution in the 1990s, the globalization process has radically changed the circumstances. Can we expect that theories that explained what firms experienced then are usable today? Is it even possible to create a model today to address all experiences related to the internationalization process, when circumstances and possibilities differ so greatly? (Axinn and Matthyssens, 2002).

In the last two decades, developing countries have become more active participants in the global market, both as low-cost suppliers and by becoming huge markets through their

increases in purchasing power. Developing countries are less regulated in the world of written laws and established institutions; instead, they place greater attention on unwritten norms, networks and families and oral contracts (Jansson, 2008). These are important issues for a foreign firm that is targeting these markets.

The world is now fighting global warming, floods from rising water levels, pollution and limited fossil fuel resources. Increasing the use of renewable energy is an issue for the entire world and, as a result, the UN and several other organizations are offering significant funds for carry out renewable energy (RE) projects in the developing world. Access to energy is a driver of development and plays a central role in both fighting poverty and addressing climate change. It's a huge need for a more sustainable energy access. In the world today it is 1.4 billion that still has no access to electricity (87% of whom live in the rural areas) and 1 billion that only has access to unreliable electricity networks¹.

The technology segment in this study is PV (photovoltaic) technology. The firms in this study have Europe as their main market, but they also have experience with targeting developing countries.

1.2 Research Problem

For decades researchers have tried to develop theories to describe and predict the internationalization of firms. The developed models on internationalization were affected by several factors: time, origin and firms in the study.

Research Problem:

The problem is that, given globalization, the theories available to explain the internationalization process by SMEs are hardly applicable today.

¹ <http://content.undp.org/go/newsroom/2011/april/grynspar-en> (19/05-2011)

1.3 Purpose of the thesis

The purpose of this master thesis is to identify the explanatory power of the theories on internationalization, based on experiences from two Norwegian SMEs offering PV technologies, which both have experience from targeting developing countries.

1.4 Research Question

To address the research problem, the following question must be answered:

Research question:

Will the experience that a Scandinavian SME with PV projects in the developing world receives these days be covered by the theories available and/or developed for the internationalization process?

1.5 Research Propositions

In the theoretical chapter, we presented different theoretical models to explain internationalization. Each model is followed by research propositions that we will attempt to validate in our empirical study.

1.6 Outline

This paper first examines the background of the theoretical models that have, to this date, explained the internationalization of SMEs. Then, through our case studies on two representative SMEs and their internationalization processes, we endeavor to uncover whether their experiences and processes fit with the theoretical models found in our literature review.

Introduction

This chapter presents the research problem and the questions to be answered in our study. The research background is presented first, to provide an understanding of the study's importance and intention.

Methodology

In this chapter, the methodology and methods used in the study are presented. A general methodology design is presented and argued for. This is then followed by considerations regarding the boundaries of the research, data collection, data analysis and quality of research.

Theoretical Approach

This section of the study presents theoretical concepts about internationalization. These concepts have been chosen as the most important theories on internationalization based on a thorough reading of the literature. The theoretical approach is served as a starting point and a base on which to shape the study's empirical study, analysis and final findings.

Empirical Study

The empirical chapter presents and describes the case companies Scatec Solar AS and Getek AS. A basic market description is first presented to provide an understanding of the market in which these companies operate.

Analysis

In the analysis chapter, the research propositions in chapter 3 are analyzed with the empirical results from the interviews with case companies presented in chapter 4.

Discussions

In this chapter, we connect the analysis from chapter 5 to the theory from chapter 3, and attempt to find evidence for how applicable the theories are for the case companies.

Conclusions

The final chapter presents the conclusions, and answers the research problem and question presented in chapter 1. At the end of this chapter, areas for further research are suggested to emphasize the importance that the study's topic be allowed to evolve.

2 Methods and Methodological Approach

The research method that we have chosen is intended to, in the best manner, 'solve' the following research problem: *"The problem is that, given globalization, the models available to explain the internationalization process by SMEs are hardly applicable today."* We chose a qualitative method and obtained empirical knowledge by thoroughly interviewing the case SMEs. Eisenhardt (1989) stated that in a multiple-case approach there is no ideal number of cases, but between four and ten are recommended. With fewer cases, theory is difficult to generate. With more than ten cases, the volume of data is difficult to manage.

When we draw the borders and assume what was the possibility to carry out in the time available in this master thesis, we decide to include two firms. It gave us multiple answers to draw similarities between the firms and then to the theory. Eisenhardt's recommendation with at least four cases was to generate a theory. With our intension to see the explanatory power of the existing theories we argue it is enough with two cases.

Firms were selected from our tutor's recommendation and network, and a recommendation from the Norwegian authority "Veiledningskontoret" (Guidance Office for private sector development in developing countries).

After a decision to pursue a qualitative research approach, the question was whether a single case study or multiple case studies would best answer the research question. A single case can confirm, challenge or extend the theory. Multiple cases strengthen the results by replicating the pattern-matching, thus increasing confidence in the robustness of the theory. *"One rationale for a single case is when it represents the critical case in testing a well-formulated theory.... The theory has specified a clear set of propositions as well as the circumstances within which the propositions are to believe true."* (Yin, 2009, p.47). When applying a single-based study, the risk of misrepresenting the truth is higher, and the researcher has to be aware of the risks and give the reader access to evidence. A case study is also a fusion of data gathered from first- and second-hand information that, together, will confirm each other (Yin, 2009).

2.1 Research Design

Research design is a framework or plan for the collection and analysis of data (Wilson, 2010).

Planning => Action => Observation => Reflection

Planning: First, we created a rough schedule with milestones that estimated and scheduled literature research, data collection, and analysis. Regular meetings with our tutor were also planned.

Action: The duration of this master thesis is just three months, and we needed to rapidly increase our knowledge of a topic that was new for us. We attended seminars on the topic that were held during the study's time to gain a better understanding of the present situation. We conducted a literature review using books from the university library and through extended use of the Internet (Google Scholar).

A study trip to one of the countries/projects abroad related to our thesis would have been valuable, but unfortunately this was not possible. Additionally, we had meetings with Veiledningskontoret (Guidance Office for private sector development in developing countries) and the NHO-Africa network, which informed us about the support that SMEs could expect from them. We decided to include two Norwegian SMEs in this case study and both accepted an invitation to participate.

Observation: An interview guide was used to structure the interview to allow us to maintain our research focus. Our main goal of these interviews was to find similarities and/or differences in our case companies with respect to the theories.

Reflection: We stitched together our prior knowledge and all of the information and new knowledge from the theory and the interviews, analyzed this information, and presented a proposition to solve the research problem.

2.2 Research Approach

A case study method is most suitable to answer the research question, because we expected that the decision to internationalize was complex and had several parameters that would be more difficult to discover through a quantitative survey (Wilson, 2010).

We adapted a deductive approach in which we started with the theory and then determined whether the knowledge gained from this could be found through our observations.

2.3 Research method

The research method describes the different techniques for collecting data. Yin (2009, p.27) identified five components of research design that are important for case studies:

- A study's questions;
- Its propositions, if any;
- Its unit(s) of analysis (*defines the case as groups, organizations*);
- The logic linking the data to the propositions;
- The criteria for interpreting the findings.

This study follows Yin (2009) recommendation. After defining our research question (RQ) and carrying out a literature research, we defined research propositions related to the theory. Then, for the empirical study, we chose two Norwegian enterprises that we considered suitable and prepared an interview guide for these case companies. The questions included in the guide were carefully considered and selected to find correlations between the theory from the literature review and the expected experiences of the firms.

Research method:

A qualitative case study on multiple respondents using a deductive approach.

2.4 Research boundaries – the unit of analysis

Both firms are Norwegian and deal with electrification projects in rural areas. One firm has Norway as its main market, while the other considers Europe as its main market. Their projects in developing countries are a limited but important part of their business. Both firms have as a strategy to target the future needs of this fast-growing market.

The **unit of analysis** in our research is on the firm level, where we investigate the important factors that determine why firms internationalize.

The **unit of observation** was one of the employees in these firms. The reason for interviewing just one employee from each firm was that we understood that these respondents were familiar with the firm's decision to internationalize. Our intention was not to discover different interpretations from within the firm for this decision.

2.5 Data collection and analysis

Yin (2009, p.98) suggested six different sources of case study evidence: documents, archival records, interviews, direct observations, participant-observations, and physical artifacts.

Early in our research, we attended conferences to rapidly increase our knowledge in this topic, and to gain an understanding of the actual topic for this network and our respondents. During our previous course at UiO, (University of Oslo), where we undertook a research project, we received valuable knowledge about business strategy and strategies for targeting emerging markets. This knowledge was also a benefit in this master thesis.

Interviews can be designed as open-ended, focused, and structured or can be designed as a survey. We chose a focused type of interview with the intention of running it as a casual meeting with our respondents. This gave us more flexibility to follow up on the answers and any topics that arose. An interview guide was designed specifically for each of the firms. These questions were based on our propositions from the theory models. The interviews were taped and then transcribed by each of us to minimize the risk of missing or misunderstanding respondents' answers.

In addition to the interviews, we used several articles and reports for second-hand information. The risk of false leads always exists when using documents, but we treated these sources as objective and highly creditable.

Yin (2009) encouraged researchers to make every effort to produce an analysis of the highest quality. To accomplish this, Yin presented four principles that should attract the attention of researchers:

- Show that the analysis relied on all relevant evidence;
- Include all major rival interpretations in the analysis;
- Address the most significant aspect of the case study;
- Use the researcher's prior expert knowledge to further the analysis.

We structured the analysis by following the propositions and compared them with respondents' answers. This disclosed whether or not the firm confirmed the propositions. In the discussion and conclusion, we summarize the findings and their relevance to the theories for these firms' experiences.

2.6 Quality and ethics of the research

Yin (2009) proposed remedies to secure the overall quality of the reports with respect to construct, internal, and external validity, and reliability.

- Construct Validity: Trochim (2006) mention that the inferences from the empirical part of the study are related to the theoretical part which the study is based on. This is done by adapting the empirical part to the theory in our study
- Internal: The respondents received feedback with our notes from the interview, and were invited to edit and add to their content.
- External: With multiple cases and more than one firm, we obtained external validation of our findings. We were aware of the differences between the firms in terms of size and status of the internationalize process, and that they were not strictly comparable. Therefore, some questions in the interview guide were customized to each of the respondents.
- Reliability: Yin (2009) argues that the reliability of a study is when a replication of the study would lead to the same findings. He mentions that to secure this a case study

protocol is preferable. The interviews which are the base of our empirical study are documented in the interview guide and the interviewee was recorded on tape. This makes a similar interview easy to replicate. Notable is that the interviewee answers are based on the firm's current status of internationalization process. Future interviews would probably give slightly different answers.

Ethics related to research calls for respecting privacy and confidentiality, and being transparent about the use of data (Wilson, 2010). During our interviews, we informed the respondents that it was possible to be anonymous and omit business secrets, or to inform us what needed to remain a business secret. We also stressed these possibilities in the feedback, as we did not want our research to harm the firms or the respondents.

2.7 Limitations

The advantage of this report is that the differences between the two firms show how SME internationalization processes vary greatly. The disadvantage is that the interview answers cannot be used to confirm each other. A further study may entail undergoing wider research among a number of other similar firms to confirm each other's internationalization processes.

3 Theoretical Framework

In this chapter, we present several theoretical approaches from our literature review and research propositions that give a basis for the study's empirical research.

3.1 Internationalization

Increasing globalization has decreased barriers to investment and trade. This process will continue and firms must realize that internationalization is not an option, but a necessity to be competitive. Rapid globalization has occurred as a result of several circumstances: rapid technological changes in communications and transport; an increasing trend towards deregulation of foreign exchange, foreign investment and financial markets; and the creation of greater incentives and opportunities for companies (Mohanty and Nandi, 2010). At the same time, it has brought new competitors to the formerly protected national arena for SMEs in the industrialized world. Information technology has decreased barriers formerly faced by foreign suppliers, and has changed customer behavior and preferences. *“Growing business environment through trade and investment in home market and abroad has been increasing the internationalization of production through multinational corporations together with the rise of new form of business organizations such as network and strategic alliances expanding across national boundaries”* (Mohanty and Nandi, 2010).

The internationalization process is associated with critical activities in which firms do not have full and correct information, and is therefore high risk. A firm could decide not to exploit new knowledge because of limited resources or an aversion to risk (Chetty and Campbell-Hunt, 2003).

When firms internationalize, they learn about their new market through experience. Firms with “absorptive capacity” are more observant and learn from their experiences, and they then attempt to commercialize on this.

The decision to internationalize and enter new markets often takes into account three different alternatives:

- Export and import;
- Foreign licensing;
- Foreign direct investment (FDI) through a subsidiary or alliances.

These different approaches also represent the degree to which a firm must be committed to and involved in a new market. With FDI, a firm is more significantly involved than with export relations. Even if a firm has a policy of selecting a FDI strategy, it could instead choose to implement export activities instead to reduce any risk associated with a specific market. The export alternative could also be a strategy decision by the firm to limit the costs when enter a new market, or to stay in a market when the alternative is to withdrawing from the market (Chetty and Campbell-Hunt, 2003).

The first step of internationalization is often exporting activities, and this has proved to be of high importance when it comes to the growth of SMEs, because exports need small capital investments, meaning that SMEs can more easily access foreign markets. In addition, the firm gains valuable international experience. Another strategy could be to join an alliance with a partner that helps the SME overcome shortages in capital, equipment and other tangible assets through resource sharing between the two or more distinct firms engaged in the alliance. Additionally, the alliance partner provides an important source of knowledge on the host country to the SME (Mohanty and Nandi, 2010).

When a firm chooses to apply FDI, it hopes to receive *location-based advantages*, such as a competitively priced labor force, gain access to critical resources and develop new knowledge and capabilities that enhance its international competitiveness. Also, FDI is much more resource demanding and less flexible when moving into a market that is instable politically and in its policies.

“As firms operate in foreign markets they develop, in addition to networks of institutional arrangements, knowledge of the process of internationalization.” (Clark et al., 1997). Further Clark (1997) argues for a shift in the globalization of firms from market-specific knowledge towards a generalize knowledge of international operations; when a firm understands the institutions in specific markets, it receives international experience, making it better prepared to target a broader market. *“Then the research of interest should be on the international experiences/resources by the firm and the appropriate unit of analysis is not the individual market but the operating firm as a whole.”* (Clark et al., 1997).

Other researchers argue that the considerable dissimilarities between developing countries and the experiences from one market have limited value in another market. As Johanson and Vahlne (1991) write, *“A critical assumption is that market knowledge, including perceptions*

of market opportunities and problems, is acquired primarily through experience from current business activities in the market. This market experience is to a large extent country-specific, i.e. it can be generalized to other country markets only with difficulty.” (Johanson, 1991)

Research proposition(s)

A1. Firms enter the international market with loose commitment before they make any deeper investments.

A2. Firms that internationalize follow two different paths, either a global or a regional internationalization strategy.

3.2 Stage model approach - the Uppsala model

The Uppsala model, considered one of the primary stage models of internationalization (Ruzzier, 2006), was developed by the Swedish researchers Johanson and Vahlne (1977). The model focuses on the internationalization process of a firm through “*gradual acquisition, integration and use of knowledge about foreign markets and operations, and on the incrementally increasing commitments to foreign markets*” (Johanson and Vahlne, 1977, p.23); in other words, the process of a firm’s internationalization as a result of different types of knowledge acquisition (Forsgren, 2002). The model is based on an empirical study by Johanson and Vahlne (1977) on Swedish companies that operated internationally. Their observations showed that the firms subsequently formalized new market entries via a local agent in a new market. As sales grew, they replaced the local agent with their own sales subsidiary, and as growth continued, they began production in the host market to overcome the then-present post-World War II trade barriers. This entire process was labeled an *establishment chain* (Johanson and Vahlne, 1977, Johanson and Vahlne, 2009).

The Uppsala model is based on four key concepts: market knowledge, market commitment, commitment decisions and current activities; see Figure 1. The model divides these concepts into state aspects and change aspects. Market knowledge and market commitment are considered the **state aspects**, reflecting the resource commitment to foreign markets. **Change aspects** include the performance of current business activities and the decisions to commit resources. The authors proposed that market knowledge and market commitment (state

aspects) at a certain time affect both commitment decisions and the current activities of a business (change aspects) (Johanson and Vahlne, 1977). In turn, this will then influence market commitment and market knowledge at later stages (Forsgren, 2002).

Johanson and Vahlne (2009) consider the market commitment concept to be composed of two factors: the **amount of resources committed** and the **degree of commitment**. The amount of resources committed is, in a broad sense, the size of the investment into the market, such as organizations, employees and marketing. The degree of commitment is considered higher when a resource is more specialized in a given market and it is difficult to find an alternative use or to transfer it to another market, i.e. the more specialized a resource is in a given market, the greater the degree of commitment. Market knowledge is knowledge about the opportunities or challenges in a given market and the relevant knowledge about this market's environment and the performance of various activities. Examples include demand and supply, competitors, distribution, payment conditions, money transferability and other conditions that vary in different countries and at different times. In particular, experiential knowledge is emphasized when the activities are less structured and defined. Experiential knowledge, which is gained by the experiences of an individual or the firm, creates a framework for perceiving concrete opportunities and formulating them into present and future activities.

The concept of current activities indicates the importance of regular daily activities that lead to trust, increased knowledge and commitment (Johanson and Vahlne, 1977).

Commitment decisions are decisions to commit resources to foreign operations. The decisions of a firm are assumed to be made as a response to perceived opportunities and/or problems in the market. Gained firm and market experience comes from problems and opportunities that are mainly discovered by those parts of the organization that are operating in the specific market. This means that the decision alternatives raised are based on a response to the problems and/or operations related to the current performance of the operations in the market. Additional commitments are distinguished between an economic effect and an uncertainty effect. An economic effect is primarily associated with increases in the scale of market operations. The uncertainty effect concerns market uncertainty of decision makers', i.e., their lack of present and future market estimations and market-influencing factors. The uncertainty effect can be reduced by taking market environment steps, such as increasing customer communication and engaging in new service activities and customer takeovers. These additional commitments are assumed to be taken in small steps when it comes to final

commitment decisions, unless a firm is an MNC, the market is homogenous and stable, or the firm has experience from similar markets (Johanson and Vahlne, 1977).

In conclusion, the model implies that rather than investing in several countries simultaneously, firms should take small, incremental steps and invest within one or a few of their neighboring countries (Ruzzier, 2006), learn from people operating at the firms and then enter new markets with successively greater psychic distance².

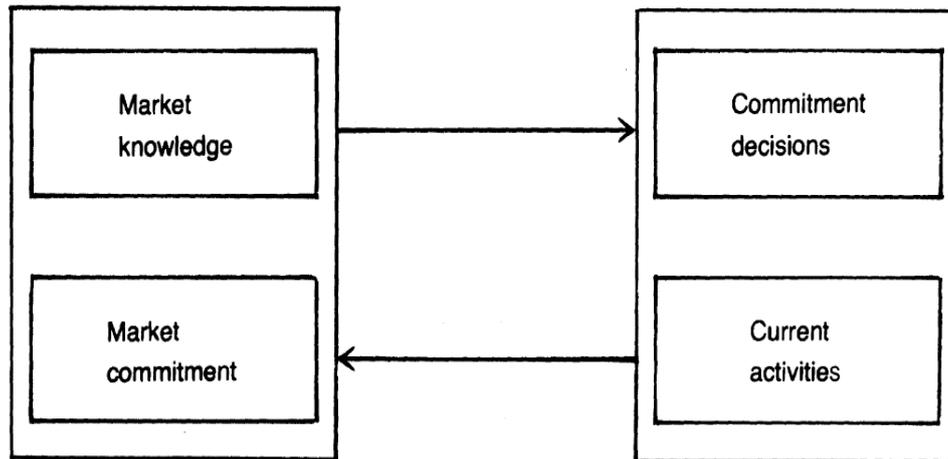


Figure 1. The Uppsala model (Johanson and Vahlne, 1977)

Johanson and Vahlne (1977) argue that the lack of this knowledge that is presented in their model is an important obstacle to successful international operations, and the knowledge that is necessary can be found mainly through operations abroad. However, over the last decades, many scholars have questioned the validity of the Uppsala model. Forsgren (2002) points out that the strength of the Uppsala Model is its simplicity, but points out several shortcomings in this stage-model based on his own and other scholars' analysis. Forsgren (2002) argues that since the Uppsala model implies that a firm acquires knowledge by being active and operating in a new environment rather than collecting and analyzing information, the firm becomes so closely connected to a given market that it becomes difficult to use its resources for other purposes.

Although many scholars have found shortcomings with the model, Forsgren (2002) states that one should be cautious about including additional variables in the model. Complicating the

² Psychic distance is defined by Johanson and Vahlne (1977) as the sum of factors preventing the flow of information from and to the market, such as language, culture and industrial and business development.

model should only be done when its explanatory power increases significantly. Based on a large number of studies throughout the past few decades Johanson and Vahlne (2009) concluded that their model needed to be developed further in light of evidence from other studies and especially the importance of networks in a firm's internationalization process.

Research proposition(s)

B1. Firms gain knowledge from their domestic market before they move into international operations.

B2. When entering a market of a greater psychic distance, firms start with traditional export models before gradually moving into other operation models, such as sale subsidiaries.

3.3 Network approach

Another way to analyze a firm's internationalization using a process approach is to use the network as a starting point, since this approach provides an appropriate framework for understanding firms as embedded actors in business networks (Johanson and Mattsson, 1993; McAuley, 1999) (Ruzzier, 2006). The business network view starts with the same assumption as the resource-based view, in that resources are heterogeneous. It adds that the exchange within a network allows a firm to gain important knowledge about its relationships partners, which include their resources, strategies, capabilities and other important relationships (Johanson and Vahlne, 1977).

Johansen and Vahlne (2009) consider that a firm's success requires being active and established in one or more networks. A firm that is active in those networks is considered an "insider". Being an insider helps the firm learn and develop the trust and commitment that are needed as stepping-stones to successful business development. A firm that does not operate in a relevant network is considered an "outsider". Entering a new and foreign market as an outsider, the firm faces a complicated process of becoming an insider, especially because of the firm is foreign.

The success of a company is largely connected to the ability to enhance the capabilities of the firm or those connected to the firm. Developing and maintaining a network to the firm are essential for success in an international arena. Developing strong inter-firm cooperation

strengthens the competitiveness of smaller firms. Clusters, representing small firms in close network cooperation and localized in a region, are example of the benefits of a good network and represent “the new competition” New communication technology vastly simplifies networking and cooperation (Best, 1990).

If the relationships among firms are seen as a network, it can be argued that firms internationalize because other firms in their (inter)national network are so doing (Ruzzier, 2006). This means that network relationships have a significant impact on which foreign market to choose, as well on the mode of entering a given market in the context of an ongoing network process (Johanson and Vahlne, 1977). Johanson and Vahlne (2009) see business networks as a market structure in which the internationalizing firm is embedded and is present in the structure of the corresponding business network of the foreign market.

Network theory attempts to explain how network resources at all levels, individual, firm or group of firms, affect the internationalization process of SMEs. *“Knowledge embedded in long-term relationships is often concentrated in one person in the firm, who will have a substantial impact on internationalization through close social relationships with other individuals. Such social relationships are extremely important for entrepreneurs and their business. (Davidsson and Honig, 2003; Hoang and Antoncic, 2003) This social network is a sub-network within the business network, effecting and being affected by the gained resources and the chosen operational mode.” (Holmlund and Kock, 1998) (Ruzzier, 2006).* Networks can be divided into open or closed networks. An open network serves the purpose of transforming the information through the network while a closed network is focused on social exchange, trust and shared norms (Walker et al., 1997).

“The strength of the network model of internationalization lies in explaining the process rather than the existence of multinational or international firms. What seems to be neglected in most process-oriented research and especially within networks approach is the strategic position and influence of individuals, especially entrepreneurs, in the SMEs’ internationalization.” (Ruzzier, 2006).

Johanson and Vahlne (2009) introduced a new, revisited model of the Uppsala model. This new model is based on business network research, which is the core argument of Johansen and Vahlne (2009), an argument with two sides. The first side of their core argument is that markets consist of networks of relationships of firms linked to each other in diverse, complex

and sometimes invisible patterns. The second side is that relationships can offer the potential for learning from each other and building mutual trust and commitment, important preconditions for internationalization. Simply put, Johanson and Vahlne now assume that the internationalization process is pursued within a network. The new and revisited model was baptized the *business network internationalization process model*. The business network model as the former model (Uppsala Model from 1977) consists of two sets of variables, state variables and change variables. These variables affect each other, as in the Uppsala Model where the current state has an impact on change, and vice versa.

The business network internationalization process model has added “recognition of opportunities” to the “knowledge” concept. Opportunities are considered by Johanson and Vahlne (2009) to be the most important element of the body of knowledge that drives the process. Capabilities, strategies, needs and business networks are also mentioned as important components of knowledge. Network position is the second new state variable, and was named market commitment in the original model. However, since Johansen and Vahlne (2009) now consider that the internationalization process is pursued within a network, the name was changed. Network commitment is built upon the relationships that may be unevenly distributed among the parties involved and that could make a difference for how a firm promotes successful internationalization. These relationships are characterized by specific levels of knowledge, trust and commitment.

The change variables in the model are “learning, creating and trust-building” and “relationship, commitment and decisions”. Johansen and Vahlne (2009) changed the name of “current activities” to “learning, creating and trust-building” for a more explicit outcome from current activities. The term “learning” is described as “*is at a higher level of abstraction: that is, we think of it as more than experiential learning, although we still regard that to be the most important kind of learning.*” (Johanson and Vahlne, 2009).

The term relationships have been added to the original change variable “Commitment decisions”. Johanson and Vahlne (2009) added this term to clarify that commitment is related to relationships or to networks of relationships. This means that “*the focal firm decides either to increase or decrease the level of commitment to one or several relationships in its network.*” (Johanson and Vahlne, 2009).

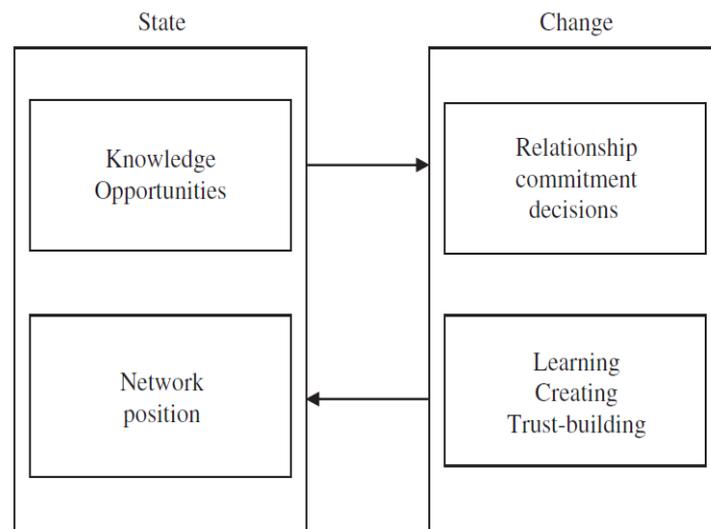


Figure 2. The business network internationalization process model (Johanson and Vahlne, 2009)

Research proposition(s)

C1. Networks influence is crucial for SMEs to start their operations abroad.

C2. Firms' trust in networks is build up gradually.

3.4 Resource-based approach

Peng (2001) identified the research-based view (RBV) as one of the best, most insightful theories when looking into emerging economies.

A resource-based view is a strategic management tool that focuses on sustainable and unique costly-to-copy attributes of the firm (Peng, 2001), i.e. the valuable strategic resources available in a given firm that could be used as the foundation of the firm's competitive advantage. Barney (1991) suggest that firms gain and obtain sustained competitive advantages by implementing strategies that exploit their internal strengths that respond to environmental opportunities, while neutralizing external threats and avoiding internal weaknesses. The model (Figure 3) by Barney (1991) shows the relationship between the traditional "strengths-

weaknesses-opportunities-threats” analysis, the resource-based model and models of industry attractiveness. The model is build on the two assumptions that (1) a firm’s strategic resources that it controls within an industry are heterogeneous, and (2) these resources are not perfectly mobile across firms, thus creating long-lasting heterogeneity (Barney, 1991). To describe the model in simple words, the originality of the model comes from the attention paid to the internal resources of a given firm and how these are developed or acquired from the factor markets (Collis, 1991).

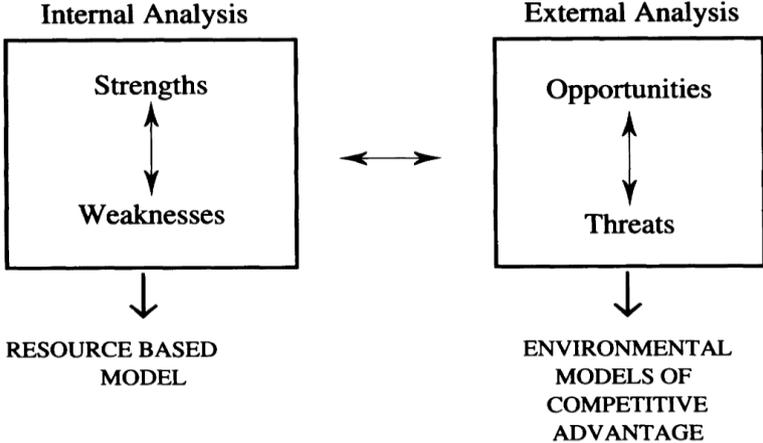


Figure 3. The relationship between traditional “strengths-weaknesses-opportunities-threats” analysis, the resource based model and models of industry attractiveness (Barney, 1991).

Barney defines three concepts to the RBV tool: firm resources, competitive advantage and sustained competitive advantage (Barney, 1991).

Firm Resources

First and foremost, the most important point is to identify a firm’s most valuable and potentially key resources available. Selection of the most valuable resources is a function of the decision-making within a firm and external strategic factors (Oliver, 1997).

The external strategic factors that influence the resources selected are described by Oliver (1997) as the industry factors that impact the firm. These factors include intensity of competition, buyer and supplier power and industry and market structure.

A given firm’s resources include everything considered a strength or weakness (Wernerfelt, 1984). Examples of firm resources are: firm attributes, knowledge, information, brand names,

employment of skilled personnel, training, entrepreneurial knowledge, and trade contacts (Wernerfelt, 1984, Barney, 1991). Many different articles have their own definitions and lists of firm resources. Barney (1991) divides these resources into three different categories: physical resources, human capital resources and organizational resources. A physical resource is considered to be all physical resources available in a firm, such as equipment, location, raw materials, etc., i.e., a **tangible resource**. Human capital resources are judgment, experience, management know-how, market insight, and all in-house human resources available in a firm. Organizational resources include all formal and informal structures in a firm, i.e., **intangible resources**.

An important point related to firm resources is that they are not only resources owned by a given firm but also include the dynamic ability for organizational learning that is required to develop new resources (Peng, 2001).

Westhead et al. considered that, particularly for small businesses, a key resource is the entrepreneur's human capital and its skills in the field: management know-how and industry-specific know-how (Westhead et al., 2001). They also argued that these two general human capital resources make a firm significantly more likely to be exporters. In other words, businesses with older principal founders and with more resources, networks, information and management know-how are a step ahead of their competition (Westhead et al., 2001).

Competitive Advantage

A firm is said to have a competitive advantage when the value-creating strategy that it implements is not being implemented at the same time by current and potential competitors (Barney, 1991). In other words, the firm is creating a situation in which its own resource position directly or indirectly makes it more difficult for current and potential competitors to catch up (Wernerfelt, 1984).

Sustained Competitive Advantage

A sustained competitive advantage is an advantage created when a firm implements a value-creating strategy that is not being implemented simultaneously by current and potential competitors, and when implemented these firms cannot duplicate the benefits of this strategy (Barney, 1991). Barney (1991) argues that for a firm resource to have the potential to create a sustained competitive advantage, it needs to have the following four attributes.

- 1) *Valuable*. The resource must exploit opportunities and have a neutralizing effect on the threats in a firm's environment.
- 2) *Rare*. The resource must be rare among the firm's competitive environment.
- 3) *Imperfectly imitable*. The resource must be difficult to imitate. The rare and valuable resources in a firm can only be a source of sustained competitive advantage if the competitors that do not possess these resources also cannot acquire them. Barney (1991) named these resources imperfectly imitable, and is a combination of one of the following three reasons: unique historical conditions, causally complex or socially complex.
- 4) *Substitutability*. The resource must be difficult to substitute. If a resource has strategically equivalent valuable substitutes then it is not a source for sustained competitive advantage because the resource is either rare or imitable.

Figure 4 summarizes the relationship between resource heterogeneity and immobility; value, rareness and imitability; and sustained competitive advantage.

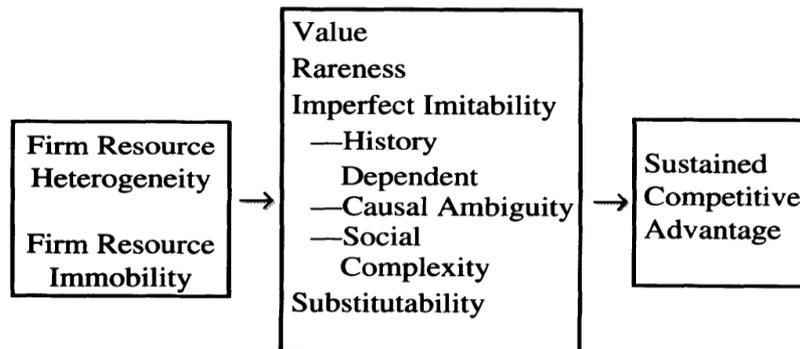


Figure 4. Relationship between resource heterogeneity and immobility (Barney, 1991)

In conclusion, firms obtain sustained competitive advantages by implementing strategies that exploit their internal strengths by responding to environmental opportunities while neutralizing external threats and avoiding internal weaknesses (Barney, 1991).

Research proposition(s)

D1. SMEs need to understand and adjust their competitive advantages when entering an international market.

D2. Internationalization is important, and these activities affect other parts of an organization.

3.5 Born Global approach

In the beginning of 1990, McKinsey & Co. published articles on Australian manufacturers that were exporting just two years after establishment. They demonstrated that many firms do not grow in incremental stages with respect to their international activities. Typically, these manufacturers produced high value-added products and did not first develop a strong home market (Persinger et al., 2011). This is confirmed by McKinsey & Co in (Madsen, 2002p.8) *“these firms view the world as their marketplace from the outset and see the domestic market as a support for their international business”*.

A common definition of a Born global (BG) is a firm that has \$100 million in sales and that exports 25% of its production within two years. *“A Born Global firm within this context will likely have annual sales of less than \$50 million, less than 500 employees and achieve a 25% export rate no earlier than three or four years after the inception of the firm. The ability to raise capital, develop networks and understand targeted niche markets will take longer.”* (Persinger et al., 2011). The definition of a BG from the developed world needs a less aggressive model to be appropriate.

This new venture presents an important new challenge to traditional internationalization theory. Researchers has given BGs several different names, here summarized by Rasmussen (2001): *Born Globals (Rennie, 1993; Knight and Cavusgil, 1996; Madsen and Servais, 1997), Global Start-ups (Oviatt and McDougall, 1994), High Technology Start-ups (Jolly, Alahuta and Jeannet, 1992), Infant Multinationals (Lindqvist, 1991), Instant Internationals (Preece, Miles and Baetz, 1999) and International New Ventures (McDougall, Shane and Oviatt, 1994)*.

Several explanations exist as to why BGs do not follow the stage model today. A possible explanation could be increasing market knowledge, which in return decreases uncertainty (Moen and Servais, 2002). Moen (2002) found in research on several Norwegian firms that the process model to internationalization was not found in these firms. The BG decision maker has a global orientation and market conditions were the most important factors. Further, the

decision to be global or to remain local with minimal export activities was often made during the firm's early establishment period. Moen concludes that firms tend to either be "born global", i.e., to start to internationalize very early, or be "born local", i.e., to remain domestic (Bengtsson, 2004).

Increasing globalization has been favourable to BGs. Born global's have been shown to be quite a common and growing phenomenon, especially in the high-tech sector. Lindmark et al. (1994) stated that almost 50% of high-tech start-ups in the nine Nordic countries began exporting within two year of their founding. A survey study by Moen (2002) reports that more than half of their sample (small- and medium-sized exporting firms in Norway and France) could be classified as a born global. SMEs are highly dependent on their entrepreneurs, who recognize opportunities that are crucial for the implementation of these strategies. The personal networks of the entrepreneurs were a valuable resource (Andersson and Wictor, 2003).

BGs are motivated by a globally committed management and their desire to serve small, dispersed niche markets. These BGs need constant innovation to continue to remain in their niche markets. These days, global competition is encouraging an increasing number of dispersed niche markets to grow. These markets are supported by the TNC (transnational company) strategy to outsource activities to niche SMEs, which at the same time gain the possibility to join a globalization process with the TNC. *"The increasing role of niche markets and greater demand for specialized or customized products is one of the most important factors. Shorter product life cycles is another factor causing born global firms to adopt an international perspective regardless of their age and size (Ohmae, 1990 and Oviatt and McDougall, 1997)."* (Soulaimane, 2007).

Oviatt and McDougall (1994) identified BGs for international new ventures and define them as follows: *"We define an international new venture as a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries. The distinguishing feature of these start-ups is that their origins are international, as demonstrated by observable and significant commitments of resources (e.g., material, people, financing, time) in more than one nation."* (Oviatt and McDougall, 1994).

Oviatt and McDougall (1994) classified a born global based on its degree of involvement in the value chain and whether it had a broad or narrow geographic market strategy (Figure 5). The first groups, “I” and “ii”, are the BGs that focus on imports and exports, and are less connected to new markets but have well-developed logistics. The third group, “iii”, focuses on niche activities/products for a narrow customer group in several countries where they have invested in the network of and knowledge in the local market. The fourth group includes the most complex firms, with activities and resources that target the entire world.

| | | |
|--|---------------------------------|----------------------|
| Few Activities Coordinated Across Countries (Primarily Logistics) <i>Coordination of Value Chain Activities</i> | New International Market Makers | |
| | Export/Import Start-up | Multinational Trader |
| | I | ii |
| Many Activities Coordinated Across Countries | iii | iv |
| | Geographically Focused Start-up | Global Start-up |
| | few | Many |
| | Number of Countries involved | |

Figure 5. Types of international new ventures (Oviatt and McDougall, 1994)

Several researchers focused on the differences between new ventures that have been successful in their domestic market (DNV) and those that succeeded in the international market (INV). McDougall et al. (2003) discussed that these firms differ in strategy, entrepreneurial team experience and channels of distribution. The industry structure in which an INV operates was also more global oriented. Rasmussen et al. (2009) focused on the scale and scope of two value chain activities, sales and sourcing, and highlighted the difference in introducing new products and services. They noted that the INV was often first to market, and competitors responded to them. Firms in the INV also showed more willingness to take higher risks than local firms, and they adopted a competitive posture of eliminating their competitors.

Research proposition(s)

E1. An internationalizing born global focuses on generalized knowledge of international operations, while other internationalizing firms acquire knowledge of a specific market.

E2. Born global firms operate with a more suitable business model for moving from one market to another market.

3.6 International Entrepreneurship approach

According to Barney (2001), there are in the RBV several social and human resources: knowledge, relationships, experience, training, skills, judgment and the ability to coordinate resources. These resources are directly connected to the manager/entrepreneur.

“Due to critics of the stage models and no attention to the important decision by individual. Alvarez and Busenitz (2001) and Rangone (1999) built a bridge between the resource-based view and entrepreneurship, implicitly proposing entrepreneurs as the source of sustained competitive advantage and (slightly) moving the focus of analysis of the resource-based view from the firm level (Foss et al., 1995) to the individual level, but still in the context of resources.” (Ruzzier, 2006).

Researchers with an entrepreneurial view argue that the stage model is less appropriate for understanding radical strategic change in which entrepreneurs and top managers play an important role. McDougall (2000) focuses on the interface between entrepreneurship and international business research called international entrepreneurship. Characteristic to entrepreneurs is that they have both the willingness to take risk and the ability to make marked changes to reach their goals. They can be seen as the “agents of change”. In the past, these individual resources of the entrepreneur were seen as just part of the organizational characteristic. Now, they are of great interest and are analyzed separately (McDougall and Oviatt, 2000).

“Entrepreneurs recognize the latent power and utility of inventions and play a crucial role in bringing those inventions to market. These entrepreneurs—those that Schumpeter described as “the promoters of new combinations”—are individuals who can both see new possibilities and assess market needs.” (Acs, 2010). According to Leibenstein (1978), “[only] those

individuals with the necessary skills to perceive entrepreneurial opportunities, to carry out the required input gap-filling activities and to be input-completers can be entrepreneurs.”

Schumpeter was the first to identify entrepreneurship with innovation. *“The motive for entrepreneurship lies in the urge to identify sources of existing and emerging customer dissatisfaction and developing solutions to eliminate them.”* (Ramachandran et al., 2006).

Clark (1997) distinguish between two broad types of entrepreneurial activity:

- At one pole is routine entrepreneurship, more like management;
- The others pole includes the Schumpeterian or “new type” of entrepreneurship.

“By routine entrepreneurship we mean the activities involved in coordinating and carrying on a well established, going concern in which the parts of the production function in use (and likely alternatives to current use) are well known and which operate in well-established and clearly defined markets”(Clark et al., 1997). Entrepreneurship is found on several levels, including on the individual level by the entrepreneur himself, and at the firm level where it is called corporate entrepreneurship. It is common that companies try to become even more entrepreneurial and attempt to foster entrepreneurship to enable business opportunities to be perceived and exploited (Russell, 1999). *“Corporate entrepreneurship can be defining as when individuals inside organizations pursue opportunities without regard to the resources they currently control.”* (Stevenson et al., 1989).

International entrepreneurial success requires not just the discovery of valuable innovation but also that the innovation be introduced successfully to world markets.

International entrepreneurship places more importance on entrepreneurship and entrepreneurs and is widely considered the main variable in SME internationalization research (Ruzzier, 2006). An aspect that contributed significantly to rapid internationalization was the emergence of a generation of highly qualified managers and entrepreneurs with extensive international experience. During their education, they received international experience when cooperating as exchange students or undertaking their own studies abroad. This gave them a valuable international network early on, and natural interest and resources to operate within a global market. *“The characteristic of the firms decision makers as knowledge, attitudes and motivation play an key role in the internationalization decision.”* (Chetty and Campbell-Hunt, 2003). Other important characteristics of the entrepreneur are managers’ expectations and

commitment to internationalization (Cavusgil and Nevin, 1981), managers' past experiences (Holbrook, 2000) and managers' belief in a firm's competitive advantage (Jaffe and Pasternak, 1994) (Chetty and Campbell-Hunt, 2003).

Research proposition(s)

F1. An entrepreneur, or someone on the manage team with an international track record, increases the possibility for a rapid internationalization process.

3.7 Institution-based approach

“Institution are regulative, normative, and cognitive structures and activities that provide stability and meaning to social behaviour.” (Jansson, 2008, p. 45). Jansson (2008) defined the institution with its rules, procedures, routines and codes typical of a legitimized group as a family, clan, organization, nation or market. Institutions provide individuals with guidelines on what is normal and expected and what is not interesting is an institution's ability to facilitate and constrain relationships among individuals and groups. Any new topic with which we deal comes with uncertainty and risk. Our experience teaches us how to deal with this and can become a known routine or an accepted regulation. Institutions in society offer economic and social controls through direct regulation. Regulation focuses on sanctions and the execution of rules – the enforcement mechanisms. (Jansson, 2008, p. 56)

The carriers of these institutions are individuals and groups and along with them are carried traditions, cultures and routines. The content in these are cognitive, normative and regulative structures and activities. *“The cognitive dimension is the institutional equivalent of the structures of the mind. The normative dimension, on the other hand, covers the structures of society along with the regulative dimension.”* (Jansson, 2008, p. 45-46).

The institution-based view is a theory that captures the complex and rapidly changing relationship between organizations and the environment. Peng (2009) argues that the *resource-based view* and the *industry-based view* must be included with another view, the *institution-based view* (Peng et al., 2009).

- The industry-based view is based on Porter's five forces and the competitive landscape around the firm.

- The resource-based view, represented by Barney, suggests that firm-specific differences drive strategy and performance.

The critics of both of these perspectives state that they just treat the institution as “background”.

Emerging economies become increasingly important core contributors to the global economy, and several (emerging) countries have gone through significant transfusions. This makes the strategy of multinational companies (MNC) dependent on several other factors when compared with traditional strategies that work in mature markets. In developing countries, traditionally the role of the government, social groups and formal and informal institutions has been a key. The role of institutions is an important factor in internationalizing firm’s strategy and something the manager has to take into account (Jansson, 2008).

Markets work poorly in emerging countries because of an absence of strong and formal institutions. Emerging economies force a new institutional view in international business (IB) research, but interest in this institutional theory may decline in the future as these countries develop. Some researchers suggest putting a value on the institutional factor to make developing countries comparable with respect to this issue (Jansson, 2008). Then, an emerging economy may place a higher value on the institution factor early in its development process. When these countries have developed and have stable political environments and institutions, such a value will decrease.

The key question for both domestic and foreign firms in an emerging economy will be: *Consequently, the key question for both domestic and foreign firms in emerging economies is: How to play the game, when the rules of the game are changing and not completely known?* (Peng et al., 2008). The theories of institutions will highlight this crucial question.

The influence of the environment has been observed also in the RBV but with an economic view. Now, researchers are interested in the dynamic interactions between institutions, organizations and strategic choices (Peng et al., 2009).

Jansson (2008) argues that an “institutional network approach” gives a deeper and wider analysis of the external environment than traditional methods. Traditional methods such as PEST and Porter’s five forces are tools to analyze environments, but they have an economic focus and are not meant to analyze the institutional structure in the background (Jansson, 2008). These economics-based methods are also more applicable when continuously scanning

an already established market. However, when deciding to target one of these markets it is important to pay attention to the relevant institutions. A successful approach is to begin with analyzing and learning the local context. *“Rather than looking to overcome weakness in an emerging economy business environment, this capability is based on the ability to craft a strategy that relies on resources and knowledge in the external environment as sources of competitive advantage. This approach challenges and extends the more top-down, internally oriented orientation favoured in the transnational model of leveraging and transferring resources within the safe confines of the firm’s boundaries.”* (London and Hart, 2004).

The institutions are deeply embedded in the national culture and the political systems. Values in developing countries differ markedly from values in Western countries, given factors such as strong family bands, strongly connected private and business entities, societies consisting of different ethnics groups, hierarchical thinking and different religions. These differences make such countries difficult to understand and target with Western standards (Jansson, 2008, p.158-159).

3.7.1 Levels of institutional importance

Researchers agree on the importance of institutions, and they should not be treated as just the “background” externals. During the past decade, research has focused on what is called “institutional distance”, or *“the difference/similarity between the regulatory, cognitive, and normative institutions of... countries.”*(Kostova and Zaheer, 1999). The importance of “institutions” depends on the viewer and can be better referred to as institutional distance. A host country with low levels of institutions increases the institutional distance to the viewer (the foreign investor).

Kostova and Zaheer(1999), argue that it is not only cultural differences that are important, but the institutional distance between countries is also key. They build on Scott’s (1995) “three pillars” of institutionalism to define institutional distance as the extent to which the regulative, cognitive and normative institutions of two countries differ from one another.

In this framework, the regulatory component reflects the existing laws and rules that promote certain types of behavior in a given country. The cognitive element reflects commonly shared social knowledge and practices. Finally, the normative pillar consists of beliefs, values and norms that define the legitimate and expected actions in a society.

The core of their argument is that measuring the ‘distance’ between two countries on each of these institutional dimensions and estimating their effect on the ability of a firm to transfer business practices and people between contexts can help multinational corporations (MNCs) facilitate market entry and obtain legitimacy in foreign countries (Phillips et al., 2009).

It is disclosed that firms hesitate to invest in markets with high institutional distance if there are greater differences in the institutional environments of the countries.

Phillips et al.(2009), argue that a “degree of institutionalization”, or what we call “institutional uncertainty”, should be considered in addition to the degree of difference. ”As firms internationalize, they encounter not only institutional contexts where key institutions differ, but also contexts that are composed of institutions that are not well institutionalized. While the host country, particularly if it is a developing economy, may be characterized by an absence of a given institution or set of institutions, it may also be characterized by institutions that – while similar to the home country – are only weakly entrenched. The low degree of institutionalization results in a high degree of ambiguity and therefore a greater degree of institutional uncertainty. This uncertainty has the effect of increasing the complexity and risk for international business, thereby increasing the institutional distance between the home and the host country.” (Phillips et al., 2009).

Less institutionalization in a country increases uncertainty. The institutional uncertainty has the effect of increasing the complexity and risk for international business/investments (Phillips et al., 2009). These two factors – institutional distance and institutional uncertainty – give MNCs an instrument for categorizing host countries, visualized in Figure 6.

| | | Host country <u>institutional uncertainty</u> | |
|--|------|---|---|
| | | Low | High |
| Host country <u>institutional difference</u> | High | Adapt Moderate risk, complexity, effort | Avoid High risk, complexity, effort |
| | Low | Transfer Low risk, complexity, effort | Hedge Moderate risk, complexity, effort |

Figure 6. A typology of MNC host country strategies (Phillips et al., 2009)

The quadrant “Transfer” shows when a firm wants to target a country similar to itself with well-developed institutions, such as Norwegian SMEs to other Scandinavian countries or countries in Western Europe. The “Hedge” quadrant is also connected to significant risks, but these firms are used to such circumstances given similarities with their home market and are better equipped to manage the risks. When a Western firm targets a developing country, they fall in one of the upper quadrants, “Adapt” or “Avoid”. These developing countries differ in stability and in the amount of well-developed institutions. In the “Adapt” quadrant, the strategy is to adapt the differences and design business model to meet demands. Such firms must learn the market, and alliances and support from locals are necessary (Phillips et al., 2009).

Differences should not be measured only between the countries. Instead, they should be measured between the experiences of the internationalizing firm and the host country because, despite significant differences and uncertainty in the market, the MNC with experience in a similar environment can manage this safely. MNCs can also lobby policymakers in host countries to change regulations or to create industry associations or other networks that shift the patterns of interaction characterizing the field (Phillips et al., 2009).

Research proposition(s)

G1. Paying attention to the differences in institutions is even more crucial when SMEs target markets in developing countries.

G2. International experience is valuable, but the level of value differs from market to market.

3.8 Summarizing the research propositions

These propositions are based on the different theories, and we hope in the next chapter, the empirical part, to find the explanatory relevance of these theories.

- Internationalization
 - A1. Firms enter the international market with loose commitment before they make any deeper investments.
 - A2. Firms that internationalize follow two different paths, either a global or a regional internationalizations strategy.

- Stage model approach
 - B1. Firms receive knowledge from the market they operate on before they move over to a nearby market.
 - B2. When entering a market in a greater psychological distance, firms start with traditional export models before gradually moving into their other operation models, like sale subsidiaries.
- Network approach
 - C1. Networks influence is crucial for SMEs to start their operations abroad.
 - C2. The firms trust to the networks is build up gradually.
- Resource-based approach
 - D1. SMEs need to know and adjust their competitive advantage when entering an international market.
 - D2. Internationalization is important, and these activities affect other parts of the organization.
- Born Global approach
 - E1. An internationalizing Born Global firm focus on generalize knowledge of international operations, while other internationalizing acquire knowledge on a specific market.
 - E2. A born global firm has a more suitable business model to move from one market to another market.
- International Entrepreneurship approach
 - F1. An entrepreneur, or someone in the manage team, with an international track record increase the possibilities for a more rapid internationalization process.
- Institution-based approach
 - G1. Paid attention to the differences in Institutions are even more crucial when SMEs target markets in developing countries.
 - G2. International experience is valuable, but the level of value is different from market to market.

4 Empirical Study

The two firms in this study are complementary which gives us interesting answers. They are similar with respect to size, and both offer a similar PV technology. The differences include their growth rates, their strategies, how they network and the markets they target. The firms' core competencies are also similar, as they both offer EPC projects (engineering, procurement, and construction) and can offer a range of products from different suppliers. But the sizes of the projects they deliver are different, as Scatec Solar offers larger power plants. Scatec can also offer a wider span of the value chain, including the initial Greenfield and then O&M (operation and management) of a built power plant.

These firms have decided to target developing countries even if such strategy is associated with significant challenges and risks. The driver is to find a new market or to gain a first-mover advantage in a huge, emerging market. In this first chapter, we attempt to give the reader a global view of the market and its potential. As long as this is a subsidy market and several participants are involved, it is important to understand the interests and goals of all stakeholders. This is why we also attempt to form a view of developing economies and their issues and interests when foreign investors are involved.

4.1 Market overview and potential

The two case companies in this study operate in the PV solar market. Worldwide PV market installations reached 18.2 GW in 2010, a record high to this date. The PV market experienced a 139% growth year-over-year. Global revenues from the PV industry jumped 105% year-over-year from 2009, generating \$82 billion in global revenues in 2010³.

The three largest markets are in Europe: Germany, Italy, and the Czech Republic (Figure 7). These three countries are Scatec Solar's main market and several installations are carried out in these. In 2010, Europe as a whole accounted for 81% of global demand, and these three large European markets accounted for 74% of global market growth⁴.

³ <http://www.solarbuzz.com/facts-and-figures/market-facts/global-pv-market> (19/5-2011)

⁴ <http://www.solarbuzz.com/facts-and-figures/market-facts/global-pv-market> (19/5-2011)

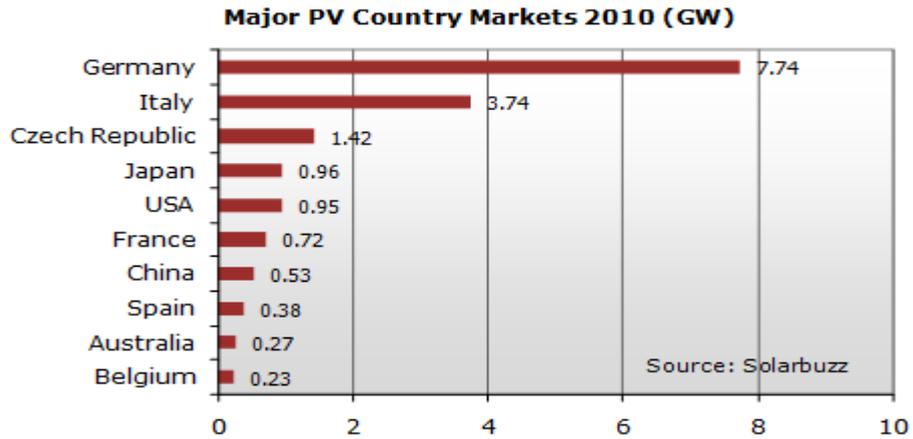


Figure 7. PV Markets⁵

The following map (Figure 8) shows the amount of solar energy in hours received each day during the least solar month of the year. Scatec Solar's operations are in South Africa, India, and Malawi, and Getek operates in Uganda; these are all markets with great potential for PV solar solutions.

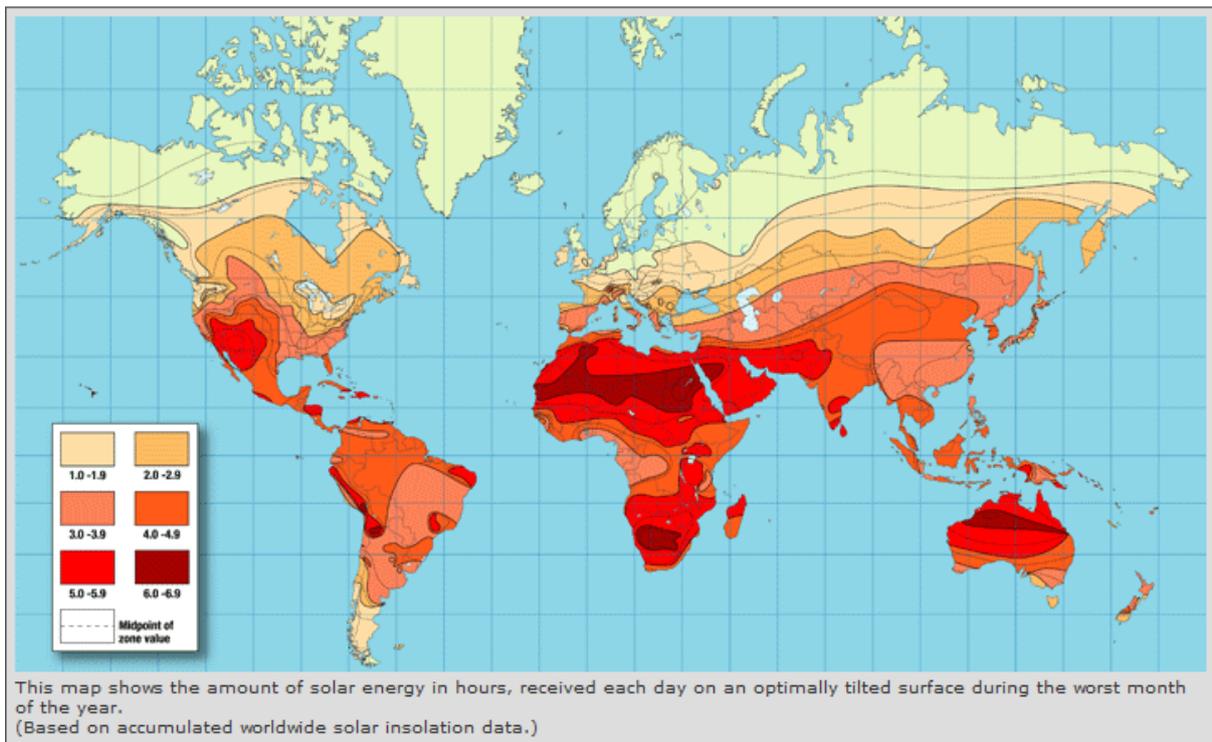


Figure 8. Amount of Solar Energy⁶

⁵ <http://www.solarbuzz.com/facts-and-figures/market-facts/global-pv-market> (19/5-2011)

⁶ <http://www.altestore.com/howto/Reference-Materials/Solar-Insolation-Map-World/a43/>(19/5-2011)

The map above (Figure 8) also shows that the markets with the highest potential for solar energy are located in the developing world, and have additionally a huge need for sustainable energy solutions. These markets have as well a lot of social issues that must be addressed, including the following (UNDP, 2010).

- About 1.4 billion people have no access to electricity and a billion more have only access to unreliable electricity networks.
- Three billion people rely on solid fuels (traditional biomass and coal) to meet their basic needs, and access to modern energy services for cooking and heating, lighting and communications, and mechanical power for productive uses is a vastly unmet need.
- One-third of the people who live without electricity live in Sub-Saharan Africa; this is about 500 million people (Brew-Hammond, 2008). In Asia, the number of people without electricity is 500 million⁷.

This situation leads to drastic outcomes; for example, every year two million people, mostly women and children, die as a result of indoor household pollution that comes from the use of solid fuels, burning dung, wood, crop waste, and coal in unventilated kitchens (UNDP, 2010). Another outcome is that collecting fuel, pounding grain, and hauling water is drudgery work that denies poor women and children time for education and paid work (UNDP, 2010).

The International Energy Agency (IEA) has estimated that the investment needed for power production in developing countries until the year 2030 is US\$3,400 billion⁸.

In Norad report (2010), *“Norwegian Incentives to Energy development Norwegian Companies and energy investments”*, argues that renewable energy, including large hydropower plants, plays a central role in the climate challenge solution and for other environment concerns, as well as for securing sustainable development. The UN has also seen the need for access to energy, and has prioritized this as a Millennium goal, which it describes in the following way: *“Energy is central to sustainable development and poverty reduction efforts. It affects all aspects of development -- social, economic, and environmental -- including livelihoods,*

⁷ http://www.iea.org/index_info.asp?id=1847(19/5-2011)

⁸ http://www.norfund.no/index.php?option=com_content&view=category&layout=blog&id=97&Itemid=265&lang=no (19/5-2011)

*access to water, agricultural productivity, health, population levels, education, and gender-related issues. None of the Millennium Development Goals (MDGs) can be met without major improvement in the quality and quantity of energy services in developing countries.”*⁹

Several international funds have been initiated to target these goals. To access as much financial resources as possible, the strategy is to enhance private investments to boost funds. The UN development fund has invested some \$2.5 billion in over 1,500 off-grid energy projects and programs during 2001–2007 (UNDP, 2010).

Beyond these projects that are partly financed by international funds, firms that believe in the boom in this market and hope to gain a first-mover advantage are undertaking significant activities. As one of our interviewee’s expressed, he sees the market divided in two, one with funds and the other as purely commercial. As UN Secretary-General Ban Ki-moon expressed, *“Expanding access to affordable, clean energy is critical for realizing the MDGs and enabling sustainable development across the globe.”*

In the BRIC (Brazil, Russia, India, and China) and in Africa, significant economic growth is expected. Sub-Saharan Africa has a population of almost 900 million and this population is expected to reach 1.5 billion in 2050 (Norfund 2011). This large population is in a region with natural resources, cheap labor, and large markets, which gradually increases the region’s purchasing power (Norfund 2011). Prahalad (2009) argues that it is not just the “bottom of the pyramid” that offers business opportunities, the tremendous growing middle class in Asia and Africa also represent a huge market.

Ángel Gurría (OECD Secretary-General) argued at an energy seminar on the 4th of May, 2011 that moving towards a green economy has major advantages. He refers to studies done by the IEA that estimate that a 17% increase in green economy investments in low-carbon energy systems between now and 2050 can produce a cumulative US\$112 billion in fuel savings¹⁰

These economic predictions, if fulfilled, will lead to major changes on our planet. On the other hand, the situation today is that larger energy utilities and big energy companies serve higher income segments of the urban population, and these segments stand for less than 10%

⁹ <http://www.undp.org/energy/> (19/5-2011)

¹⁰ http://www.oecd.org/document/40/0,3746,en_21571361_44315115_47781032_1_1_1_1,00.html (19/5-2011)

of the total population in some African countries, which is a great concern (Brew-Hammond, 2008). This concern does not go without notice. Over the past few years, Norwegian companies have increased their involvement in international energy investments; these investments include operations in developing countries and rural areas. (Norad, 2010)

In 2009, Energi Norge established a project called “Energy and Development”. This project will continue until May 2011 and has as its main objective to ensure that the Norwegian government has a stable focus and a long-term commitment to promote and enable the use of Norwegian expertise on renewable energy in developing countries. The goal of the project is to give insight into the renewable energy markets of developing countries, to highlight the commercial opportunities present in these markets, and to bring political focus onto this area. (Norad, 2010)

In the future, we can expect that subsidies for PV energy will disappear. The prices for PV modules will decrease and oil prices will increase simultaneously. When these price curves cross each other, PV energy will be the winner.

4.2 Emerging economies

The main problem and biggest risk for an international investor to invest in an emerging economy is the political and policy instability. In the developing world, there is often political instability and an absence of institutions. However, if a developing country manages to shape political stability and an institutional system, and the laws and regulations to provide it with a legal system, then FDI (Foreign Direct Investment) becomes more realistic. *“Institutions, as the core part of an economic system in transformation, play a crucial role in the flow of FDI, which in turn facilitates and accelerates economic reform.”* (Kukeli, 2011).

Institutions matter in the developed world, but their influence is much higher in developing countries. Nations differ in their political risk, which affects the stability of their markets. Norad released a report in 2010 (Ryan Anderson, 2010), in which it disclosed the main barrier to investing in emerging economies, which is political and policy instability. Also, contemporary reports from Chatham House (Hamilton, 2009), which holds several roundtable discussions with international ventures, resulted in similar findings.

Today, Africa presents good returns on investments, but with several risks. The countries that have succeeded in attracting investors are the ones that offer higher political stability.

Countries from eastern Africa, together with South Africa, are perceived as stable and as offering market potential and they have gotten more attention from Western investors.

The political situation can change rather rapidly in these markets. For large hydro projects, the time horizon is at least fifty years. This limits the number of emerging countries interested in investing in such projects that can best provide stability and trust.

A country's infrastructure is often important to an investor or a foreign project developer. Sustainable energy supply, functional infrastructure for logistics, and reliable labour are important issues. During last few decades, China has developed the infrastructure in several African countries. An example is the railway from Angola through the Congo and Zambia to Tanzania, allowing for the transport and shipping of raw materials to China, and the manufactured products back to Africa (Corkin, 2008).

Partnership like this will help African countries attract FDI for the exploitation of their resources, which in turn helps countries rise out of poverty. The cooperation with China has not been welcomed unanimously. Several projects have been delayed given labour conflicts and because African governments were unsatisfied with their share of the deal. Regardless, these projects would probably not have started without the Chinese investment and the region now benefits from increased interest in FDI from Western countries (Corkin, 2008).

4.3 CSR

When Western firms carry out projects in developing countries, a corporate social responsibility (CSR) is more or less in demand, both from the companies' country of origin and the host country.

Each emerging country can set the premises for investing in the country, demands for CSR, and important technology transfers that in the long run will help it develop.

Jansson (2008) writes about MNCs but we consider that these issues are similar for a foreign SMEs targeting the market. *"To be a successful MNC operating in an emerging country the MNC need to match the values and norms to adapt the behaviour controlled by this rules. The local government is probably the most important stakeholders and it will in return analyze the foreign firm in different ways"* (Jansson, 2008p 175-177).

The pros and cons of China's activities in Africa since 1990 have been discussed. African authorities appreciate the respect that Chinese authorities show them compared with what they have experienced from Western authorities. However, the perception is the opposite regarding the way that Chinese firms manage projects due to systematic health, environmental and safety activities in enterprises (Internal control regulations), and the use of local suppliers and labour.

With respect to CSR, using local suppliers in the value chain is often stressed. The challenge for African SMEs that deliver energy services is that they are simply too new, too unknown, and too risky for most financial institutions in Africa. In particular, the challenge in sourcing capital in the start-up phase is a big concern, as is the inability of SMEs to present and structure business proposals for relevant and potential financiers (Brew-Hammond, 2008).

4.4 FDI (Foreign direct investment)

Developing countries need to attract international investors to bring money into the country for further development. FDI takes place when a firm acquires ownership control of a production unit in a foreign country.

There are three basic forms of FDI:

- establishing a new branch;
- acquiring a controlling share of an existing firm; and
- participating jointly in a domestic firm.

“We will assume that the amount of FDI in a given country will be determined by two factors, the institutions to be developed (formal and informal institutions) and the countries’ policy with respect to foreign investments. From the institutional progress point of view, the one that will most likely affect the level of FDI will be political stability, degree of privatization of state properties, and development and enforcement of private property rights (included in the civil liberties index). The policy factors that will affect inflows of FDI will be economic stability expressed in two measurements; controlling of inflation, and an exchange rate regime that a country adopts. Also, the level of openness will determine capital inflows.” (Kukeli, 2011).

Foreign direct investment (FDI) increases the flow of funds towards developing countries. Not only is capital flowing but knowledge (technology, management, organization expertise, entrepreneurship) is also flowing (Altenburg and Entwicklungspolitik, 2000).

Technology transfer is a core issue for emerging countries when dealing with international firms (TNCs). Yet, also significant is whether local firms have the “absorptive capacity” to receive and transform the spillover from TNCs. Local governments have to play an active role in promoting linkages to foreign investors in targeted industries and in ensuring that those linkages benefit the local industry. The authorities should also adopt an active industrial policy for the economy (Hansen and Schaumburg-Müller, 2006). *“The task of government in developing countries is two-fold. One the one hand they must attract advanced types of FDI (foreign direct investment), by improving infrastructures, institutions, incentive structures and the strength of local industry. On the other hand they must provide conditions for spill-over from these FDI – e.g. through fostering of linkages and the creation of a national learning system that can absorb the knowledge of TNCs into local industrial context.”* (Hansen and Schaumburg-Müller, 2006).

Foreign firms can contribute to the local economy and local firm development with technology diffusion via vertical linkages towards customer and suppliers. The developmental impact of foreign subsidiaries via vertical linkages has shown to be highest when these firms demonstrate enhanced autonomy and initiative in their decision-making processes, and in their own initiatives and technological progress (Jindra et al., 2009). The findings stress that local governance should support or even demand that MNCs build a local subsidiary in the country to increase the possibility for spillovers. This subsidiary should act with loyalty and with transparency with local organizations. Some research also discloses that when a TNC has been operating for a longer time in a host country, the probability increases that it will recruit new employees locally (Altenburg and Entwicklungspolitik, 2000).

A wise strategy for local decision makers to adopt in an emerging market is to stimulate the technology spillover effects from the TNCs to develop the countries’ own competence in the long run.

4.5 SME and internationalization

SMEs are a main contributor to the economy, and contribute between 25% and 35% of the world's exports. International SMEs are growing faster than their domestic counterparts (OECD). Apparently, extensive international operations were a privilege of large multinational companies. Now the situation has changed, and SMEs are internationally competitive, and the removal of trade barriers and technology improvements are catalysts to SME internationalization. The Internet, web-based sales, Internet marketing, and communications networks have further enhanced this (EuropeanComission, 2003).

Given globalization, almost all SMEs, regardless of whether or not they are in the technology sector, experience competition in former "protected" markets. Moreover, this means that firms have the opportunity to internationalize their own products and services (EuropeanComission, 2003).

The issues for SMEs when internationalizing are:

1. Find new markets. Due to their specialization, they need to broaden the market to reach their needed customer base.
2. Search for suppliers. They need to rationalize and lower labour costs.
3. Access to know-how and technology. This can be achieved through international (R&D) alliances.

Internationalization is regarded as an essential prerequisite for SME growth. It has also been discovered that internationally active SMEs tend to be more productive and profitable than those that stay in domestic markets (Buckley, 1997).

Earlier internationalization was similar to exporting *"but has become a much more differentiated business activity encompassing trade, cross-border clustering, cross-border collaboration, alliances or subsidiaries, branches and joint ventures abroad."* (EuropeanComission, 2003). Access to know-how and technology is a frequent motive for going abroad and is needed to compete in the international market.

In a survey carried out by the European Union (2003), several firms described their main barriers to internationalizing. "High costs" was the main internal barrier, and the main external barriers were "existing laws and regulations".

A lack of financial and human resources were other barriers experienced by SMEs. Governments attempt to help their SMEs be competitive in the international market. Support through feasibility studies and match-making programs are valuable for an SME without international experience.

4.6 Case description

The following case description is based on our interviews with the two firms, Scatec Solar AS and Getek AS, and on official presentations made by the firms that were found on their websites¹¹.

4.6.1 Case description - SCATEC SOLAR AS



| | |
|-------------------------------|---|
| Established | 2007 |
| Employees | 18 |
| Location | Oslo, Germany, and several subsidiaries around the world |
| Offerings/Technologies | Turnkey PV solution including greenfield and project financing |
| Target market | South Europe, expected further growth into Africa and the Middle East |

Scatec Solar is a fast-growing, global, turnkey supplier of photovoltaic (PV) solar energy solutions, with a focus on megawatt-sized, ground-mounted and large rooftop / carport installations. The company was established in 2007 by Dr. Alf Bjørseth, a founder of several

¹¹ www.getekint.com, www.getek.no, www.scatecsolar.com (19/5-2011)

renewable energy initiatives, as Renewable Energy Corporation (REC), one of the world's largest integrated solar energy enterprises.

The main market for Scatec Solar has been in Europe, but the company also targets other regions: East Europe, the U.S., India, China and South Africa. Scatec Solar is an EPC (engineering, procurement and construction) technology company offering turnkey PV installations. The company is owned by its parent company, Scatec, which holds 62.5% of the shares, and by Japanese trading company Itochu, with 37.5% of the shares.

Scatec AS serves as the center for the development of new business ideas within renewable energy. Scatec is an industrial investor focusing on companies in the early phase, and leverages its industry knowledge, network and technical competence to maximize its probability of success. Scatec seeks to utilize synergies between its companies, including creating market access for new technologies by leveraging its installation company, Scatec Solar.

Scatec Solar is headquartered in Oslo, along with the other companies in the Scatec group. The engineering department is mainly located in Germany. If projects require, Scatec Solar establishes local offices in targeted countries. The company now has a presence in several European countries, North America, India, China and South Africa.

Scatec Solar has several technology suppliers, giving it the flexibility to serve different customer needs. The company's core activity is to carry out the ECPI (engineering construction procurement installation) part of a project. The initial and primal activities of site identification, permitting, designing and project financing, usually take up to two years.

In our study, the interviewee has an international education with a bachelor's degree in economics from the U.S. and an MBA from Paris. His career has transitioned slightly from finance towards a more commercial and business focus. The respondent's colleagues in Scatec Solar are economists, business managers and engineers from the energy (oil and gas) field.

During 2009–2010, Scatec Solar developed and funded two pilot projects in two Indian villages, Gopalpura and Rampura, to demonstrate the opportunities presented by solar energy through standalone solar plants in these rural villages. An important aspect was to understand the necessary local involvement and willingness to pay for electricity. The long-term aim is to

use the pilot project to build a working model, which will enable a large-scale rollout across India and other similar regions of the world.¹²

Scatec Solar was working closely with the NGO Development Alternatives (DA), which has opened doors into the villages. DA was responsible for the mobilization of villagers and analyzing the needs of the community. The project was a success in Rampura, and depended greatly on the community network in this village, and the project's investment in a small mill that became an income-generating business connected to the power plant. The project in Gopalpura faced several problems because of the caste system and non-communities in this village. The project did not find a sustainable and scalable model and the investments were made by the government.

Further international growth for Scatec Solar will come from expansion in Eastern Europe and the Middle East. North Africa is also a target market. Given the challenges with sand storms, which have a negative effect on the PV modules, Scatec built a test station in Abu Dhabi to handle further product development and operating and maintenance (O&M) issues.

¹² http://www.norwayemb.org.in/News_and_events/Business/Business-in-India/scatec_sloars_community_solar/ (19/5-2011)

4.6.2 Case description - GETEK INTERNATIONAL



| | |
|------------------------|--|
| Established | 2009 Getek Intern. / 2001 Getek AS |
| Employees | 11–15 in Getek and 2 in Getek International |
| Location | Trondheim and Oslo (Getek Intern.) |
| Offerings/Technologies | Off-grid solution: with a hybrid of biodiesel, wind and PV Ongrid solution: larger PV modules (building integrated) |
| Target market | Off-grid hybrid systems in Norway as cabins, telecom, building integrated PV systems, APS (autonomy power supply) |

Getek International is a subsidiary of the Norwegian company Getek AS. Since 1976, Getek has specialized in delivering off-grid electricity supply systems based on wind generators, solar panels and biodiesel generators, as well as hybrid systems of these solutions. Getek started by delivering cabin electricity solutions for private costumers. Today, Getek's solutions are found in private houses; offices and workshops; hotels and lodges; and telecom and surveillance installations. Some of its systems are found in distant places, such as Svalbard, the North and South Poles and rural Uganda, and the company has well-known Norwegian costumers such as Telenor, Hydro, DNV and Mesta. Getek's headquarters is in Trondheim, and its subsidiary Getek International is based in Oslo. The entrepreneur Morten Gaustad and four other employees are the primary owners of Getek, and in May 2010 Trønder Energi became a stockholder with 38% ownership. This deal was consummated primarily based on a united international expansion strategy by both parties, and gave Getek access to Trønder Energi's international experience and network, mainly in Africa and Uganda. Getek International was established in 2009 as a subsidiary to operate Getek's commitment to the

international market, especially in Africa. To date, Getek's international operations have entailed consulting and design through Getek International, and the company intends to broaden its commitment to the overseas market.

The interviewee in our study informed us that he was involved in Getek's decision to go abroad. He has a background as a human geographer and has previous work experience from FN, UNDP, Bellona and other aid and oil foundations. The interviewee ended up at Getek on his own initiative; he contacted Getek when he saw international opportunities for Getek's products, based on his experience in Africa and his interest in solar energy.

Our research focused on a Getek International project related to one of the largest solar installations in Uganda. The project is in the Ugandan sector of Victoria Lake and is still under development. Getek, under an EPC (engineering, procurement and construction) contract, is responsible for engineering, designing, buying the components and constructing the solar part of the project. Getek chose to target East Africa because its market research disclosed that East Africa is a large market, with large countries and stable governments, and it ultimately decided on Uganda. The East African trade union was also an important factor, which allows toll-free movement around neighboring countries. The competitors in this market are many, and MNCs such as Siemens and GE (General Electric) are present.

Getek International is present in two markets, one is a pure commercial market and the other is based on international climate negotiations. According to the interviewee, significant funds are available, but such investors demand a stable government to eliminate the possibility that the funds do not disappear in a corrupt environment. In Uganda, the government is responsible for the correct use of the funds.

5 Analysis

In this chapter the research propositions from the theoretical chapter is analyzed with the empirical results from the interviews. Each section concludes if the firm confirms or not confirms the proposition.

5.1 Internationalization

Research proposition(s)

A1. Firms enter the international market with loose commitment before they make any deeper investments.

A2. Firms that internationalize follow two different paths, either a global or a regional internationalizations strategy.

A1. When Scatec Solar went first abroad they targeted markets where the policies and incentives for PV were the best. Germany was the prime market due to political strategy towards clean energy. In this market, private households were also allowed to deliver PV energy to the grid and were well paid. When Scatec AS decided to target this market they formed a JV in 2007 together with one of the leading project developers and EPCI contractors in Germany. This cooperation established two companies; Scatec Solar GmbH (Project development and management) and Scatec Solar Engineering GmbH (EPCI). Both companies are 100 % owned by Scatec Solar AS¹³.

The way Scatec Solar first entered the international market was strategic and radical. When it comes to developing markets, Scatek Solar enter these new markets with loose commitment, and less initial investments. In their project in India, Scatec Solar cooperate with the government and with NGOs the local government suggested for cooperation. In their ongoing project in South Africa, they started a joint venture after a successful cooperation with a local partner. They gradually increase their commitment to the new market and these findings confirm proposition A1.

¹³ http://www.scatecsolar.com/x_x-profile-of-company-solar-market-global-international-presence-x_page_1_3.php (19/5-2011)

The way Getek work abroad is that they want to get to know a partner on a given mutual project, before entering any further joint venture or alliance. In Geteks project in Uganda, the end customer in the Lake Victoria project is the Ugandan government, and Getek's customer is Infraco which is a donor-founded infrastructure development company. Getek work with Infraco on an FOB (Freight On Board) agreement, which means Infraco, is the owner of the components and generators as soon they are shipped on board. This shows that Getek work on a more loose commitment right now in Uganda. Either they have not joint any alliances or joint ventures, to minimize the risk and commitments. The interviewees expect that Getek in the future will work directly with the end customer, but right now they work with a more careful approach.

The loose commitment which gives a cautious approach to networks and partners is very important according to the interviewee, especially in markets where the countries laws and rules are still under heavy development, and as he expressed *"This is because if something fails, the process of taking something to court, it's almost no-existing"*. These findings confirm proposition A1.

A2. Scatec Solar offer their products to a global market and have both network and resources to carry out projects all over the world, but due to differences in the policies and economic conditions they target specific markets. Scatec Solar has a global internationalization strategy but the implementation has to be with a regional strategy. These findings does not confirm proposition A2.

Getek's products have a global potential. They deliver solutions for rural areas and building integrated PV systems, which are both products that have potential all over the world. Getek don't carry out projects in the Western world (except domestic in Norway), due to the huge competition, they choose regional markets where they have internal and external network, to start their operations. Concluding as Scatec Solar, Getek have a global product but their internationalization is with a regional strategy. These findings confirm proposition A2.

5.2 Stage model approach

Research proposition(s)

B1. Firms receive knowledge from the market they operate in before they move over to a nearby market.

B2. When entering a market in a greater psychological distance, firms start with traditional export models before gradually moving into their other operation models, like sale subsidiaries.

B1. Scatec Solar head quarter is in Norway but most of their employees work in one of their two subsidiaries abroad, Scatec Solar GmbH or Scatec Solar Engineering GmbH, which are both located in Germany. Most of the projects Scatec Solar has carried out are in Germany. It was not before in 2009 Scatec Solar had their first project in Italy and in 2010 their first project in Czech Republic. Beside these two projects, small projects were carried out in USA in 2009 and in France in 2011.

The interviewee said that Scatec Solar further expansion will be to surrounding countries they now are targeting. When Scatec Solar decided to target Africa they started in South Africa which have a more similar Western business culture. Here they want to “land some projects” before they expand further to nearby markets in East Africa. The answers from Scatec Solar confirm the proposition B1.

Getek has a broad knowledge and experience in the Norwegian market with their operations and products. Even though Getek was established in 2001, they have operated in the Norwegian market since 1976, and have gained valuable experience under different company names for a long time. Getek did not go to a nearby market, when they choose Uganda. The interviewee in this study, who was not an employee of Getek at this time, contacted them when he saw opportunities for Getek’s products in Africa. We assume also that Getek AS was influenced by Trønder Energi’s recent experience in Uganda. This do not confirm proposition B1. However as the interviewee expressed, Getek want to expand to the nearby markets in East Africa in the future, based on their knowledge and experience they gain from Uganda. This confirms the proposition B1.

B2. If Scatec Solar has evaluated a new project to be feasible, the project needs more resources; both financial and human. From now on, the project is difficult to manage from Norway due to extensive coordination with partners and authorities. When the circumstances change fast they need quick handling. In these situations Scatec Solar start a subsidiary to carry out further project development and project execution services.

Today Scatec Solar has subsidiaries in: Germany, Czech Republic, USA, France, Italy, China, India, and South Africa.

Scatec Solar do not start with traditional export activities when entering new markets, thus proposition B2 is not confirmed.

In Getek's case, the firm started their own subsidiary in Norway, Getek International, which had a main focus on Getek's international operations. The approach chosen by Getek International when entering the Lake Victoria project was to export their equipment to Infracore on a FOB agreement.

The interviewee stated also that Getek, when the time is right, hope to open an office and warehouse in Uganda, and wants to target the end-customer. This confirms the proposition B2.

5.3 Network approach

Research proposition(s)

C1. Networks influence is crucial for SMEs to start their operations abroad.

C2. The firm's trusts to the networks are building up gradually.

C1. The project in India was a result of the founder Dr. Alf Bjørseth's great network that include also Indian authorities and domestic network to Norad. Beside Scatec Solar is a global company with a global reputation and network. The strategy of Scatec Solar is to be visible in open networks and offer transparency and share their experiences. This strategy gives them a national and global reputation in these open networks with participants who might invite them

into new projects. Scatec Solar has a global network and their Japanese shareholder Itochu with 55.000 employees will further strengthen their network.

Scatec Solar has also a good reputation and close connection to Norwegian authorities and is often consulted in questions and a sought speaker at seminars due to their transparency about their experiences.

Scatec Solar cooperate with several suppliers and partners and build up their own networks in the country they decide to target. They have worked closely in their India project with NGO's, as Development Alternatives (DA), who has acted as a door opener into the villages. This partner (DA) was responsible for the mobilization of villagers and analyzing the needs of the community. DA takes care of the daily contact with the local community and encourages villages to utilize the electricity to take up new income generating activities.

The network around Scatec Solar is both domestic and international. They work closely in their projects with stakeholders, governments, international organizations, and local non-governmental organizations (NGOs). Scatec Solar has also a network of international banks, and financial and strategic investors. The German unit of Scatec Solar which was founded 1998 and has emerged as one of the leading solar project developers and EPCI contractors in Germany, gave Scatec Solar an great market share in this market. Scatec Solar has a world-wide contact network to leading technology suppliers and producers of PV-modules and inverters. They are also a member of IntPow, a non-profit organization that was established in cooperation between the Norwegian Authorities and the Norwegian renewable industry business. The extended network around Scatec Solar enhanced their international operations and this confirms the proposition C1.

When Getek decided to start their international operations to the Ugandan market, it was their network that was an important factor for this decision. Trønder Energi, went in as stockholders in Getek, they had previous experience in Uganda, and a solid network there. The interviewee, who had a broad experience from the African market, offered Getek also both knowledge and network in this market. Norad helped Getek as well with a initial market research. These findings confirm that Geteks internal and external network was crucial to their operations abroad. This confirm proposition C1.

C2. Scatec Solar has both good and bad experiences of their cooperation with partners abroad. In India the NGOs was responsible to understand and explain the customer needs. These partners were suggested by the Indian government who was a partner in this project. It was not an issue for Scatec Solar to replace these suggested NGOs with another partner. Scatec Solar had to trust them. The NGOs succeeded in their duty in one of the villages but failed in the other. As the interviewee expressed “*we might have chosen other partners if we would proceeded to target this market*”. In Scatec Solar’s first project in South Africa the cooperation with the local partner was a success and led to a Joint Venture (JV).

As the interviewee expressed about their different partner experiences “*It takes time to learn to know each other. Firms can have different goals and can growth apart during projects*”. The findings from the interview with Scatec Solar confirm the proposition C2.

Getek have a strategy to evaluate partners before getting into a deeper commitment. Getek have a very cautious way of going in to partnerships or new networks. He argues that there are too many examples of bad experiences with alliances and JV that could be avoided in a more cautious approach. As the interviewee expressed “*We prefer to dance first*” and if the cooperation is a success they will then consider going into deeper and more specific collaborations. The proposition C2 is true in Getek’s case, that trust is build up gradually.

5.4 Resource-based approach

Research proposition(s)

D1. SMEs need to know and adjust their competitive advantage when entering an international market.

D2. Internationalization is important, and these activities affect other parts of the organization.

D1. Scatec Solar has from the time they was established target an international market. Scatec Solar has shaped a lean organization with both tangible (human resources) and intangible resources (organizations) that are costly to copy. Important resources are their global network to financing and to several different technology suppliers. They have also an ISO certification in quality and had a reputation to be transparent organization.

The project in India was different from the projects that Scatec Solar usually implements. It was their first project in the developing world and the end customer, the rural village, could not undertake such investment itself. The project was sponsored by the government and the village was only responsible to cover the cost of the O&M (operation and maintenance).

The projects Scatec Solar usually carry out are often large and target governments or larger customer. As we have understood Scatec Solar has, not made any specific changes in the management or in their offerings to strengthen their resources when target developing countries. Scatecs director of Strategy Terje Osmundsen, spend a lot of time discussing with African and Asian authorities. These are resources they have developed further after entering these types of projects and these findings confirm proposition D1.

As the interviewee stated, Geteks main competitive advantage is first and foremost their broad experience with generators and hybrid solutions. The interviewee's broad experience from Africa, can be considered as an resource for competitive advantage when operating in Africa.. Getek has by this done good job to employ skilled personnel with good trade contacts for their operations and the entrepreneurial competence is also an important and strong resource that can lead to competitive advantage. Concluding, this can be considered as an adjustment of their competitive advantage when they entered an international market. They needed to employ a skilled employee with the right experience and connections to start their operations abroad. Proposition D1 is confirmed.

D2. Scatec Solar try to make positive synergies between the other companies in the value chain of the Scatec group; upstream to NorSun who produce the single crystal silicon wafers that are used in the production of high efficiency solar cells, and downstream to Scatec Power who invest in and operate solar power plants.

The founder of Scatec Solar has a great reputation in the research field of PV and in this business network. With this he has good possibilities to start new business to make synergies to the already established firms in the Scatec group.

If we focus on how their projects in India and Mali have affected the organization, it has not made any big changes in the management and strategy of the firm. The experience has been valuable but it has not changed the way of carry out projects.

As the interviewee informed these projects in developing countries are committed with large uncertainty and make it more difficult to budget these projects. The circumstances around these projects change fast and could be a main barrier for small firms who could succeed or fail with a suddenly bad outcome. The strategy of Scatec Solar has been to start with loose commitment in the early phase and increase the investments in a later phase when the outlook becomes clearer. In the respect to the financial uncertainty, these projects will affect the other organization negatively. These findings confirm proposition D2.

Getek AS considers Getek International as a very important part of their organization. Getek International was established before Trønder Energi became a stockholder in Getek AS, and strengthens Getek's focus on international expansion. Getek AS consider the Norwegian market as saturated, but they are now investing in a new head quarter in Trondheim, and they consider to start their own subsidiary in Uganda when the time is right. This can be interpreted as a belief in Geteks international expansion and their commitment to this market. These findings confirm proposition D2.

5.5 Born Global approach

Research proposition(s)

E1. An internationalizing Born Global focus on generalize knowledge of international operations, while other internationalizing firms acquire knowledge on a specific market.

E2. Born global firms have a more suitable business model to move from one market to another market.

E1. Scatec Solar follow a Born Global firm in the view of Scatec Solar as a Norwegian owned company who made all their first projects abroad - in Germany. Their activities have already from the beginning target a global arena and projects have been evaluated all over the world.

To be a successful global actor it is a strategy for Scatec Solar to give the subsidiary a lot freedom to operate to the local circumstances. Scatec Solar as a born global firm with several

(autonomous) subsidiaries, has a generalized knowledge to manage projects all over the world and confirm the proposition E1.

Getek cannot be considered as a born global. Getek International was established to operate Getek's interests in abroad markets, but this was first done after several years of operation in the Norwegian market. But Getek International on the other hand operates in several ways similar to Born Globals. They focus on import and export operations and has well developed logistics. Getek have also niche their activities/products to a narrow customer group and invested in the network and knowledge in the local market, but not in several countries, but in one, Uganda. Getek International as a subsidiary don't focus on having a global strategy, but a more mixed strategy with a global product that is regionally focused on a given market, due to their network in the market and the in-house human-capital resources. This confirms that Getek focus on acquiring knowledge on the specific market they internationalize too. Getek confirm proposition E1.

E2. Scatec Solar can offer different options to the power plant. They can make all the previous planning, financing and the following O&M of the power plant. They can also offer different technological supplier/products in their projects. This increases their chances to satisfy the different needs from customers, and crucial for a global firm. Scatec Solar confirm proposition E2.

Getek as an organization do not classify as a Born Global. However their products, especially when they target telecommunication companies with power supply to their base stations, have a great potential all over the world. The mobile telephone market in developing countries is growing rapidly, and there is a big need for power supply in these countries rural areas as well. Getek's existing business model; to export to bigger international firms, is suitable to easily move from one international market to another. Getek do not confirm proposition E2.

5.6 International Entrepreneurship approach

Research proposition(s)

F1. An entrepreneur or someone in the management team, with an international track record increase the possibilities for a more rapid internationalization process.

F1. The founder Alf Bjørseth has an extended entrepreneurial track record. Through Scatec, he founded *ScanWafer*, *ScanCell*, *ScanModule*, *SiNor/Sitech* and *SolEnerg*. All these companies later merged to become “*Renewable Energy Corporation*” (*REC*). When Alf Bjørseth retired as CEO for REC in the autumn of 2005, he decided to develop his industrial ideas through Scatec. Scatec are the umbrella organization for development of new business ideas within the areas of renewable energy and advanced materials. The following companies have been established and developed after the fall of 2005: *NorSun* (2005), *Thor Energy* established (2006), *Scatec Solar* (2007), *Scatec Adventure* (2007), *NorWind* (2007), and *OceanWind* (2008).

Scatec Solar as a organization offer a working place which is lean and execution oriented organization, where the employees are then expected to work independently but in a internal network and take their own initiatives. All of the subsidiaries in the Scatec group have technologies that have possibilities for global success. The founder’s and Scatecs international reputation helps to enhance the firms’ possibilities for rapid internationalization. These findings confirm the proposition F1.

Getek’s founder Morten Guastad, started to work in his fathers and grandfather company in the 1970’s, making him third-generation family member in the electronics field. After working his way up in the family business, Morten Gaustad established Getek in 2001, and has now approximately 10 employees and a subsidiary. He as a entrepreneur don’t have a significant international track, but he and Getek made sure of employing the right person with an international track, to be one of the heads of operation for Getek International. This person, which we interviewed have a significant international track and Getek International is already on a good way with their international operations, even though they were established as late as 2009. Getek has a person in the management team with a significant international track, and confirm the proposition F1.

5.7 Institution-based approach

Research proposition(s)

G1. Paid attention to the differences in *Institutions* are even more crucial when SMEs target markets in developing countries.

G2. International experience is valuable, but the level of value is different from market to market.

G1. Scatec Solar in general and the director of Strategy Terje Osmundsen specifically, spend a lot of time discussing with African and Asian authorities. Scatec Solar work also close with Norwegian authorities about climate questions that affect Norwegian agency sponsored projects in developing countries.

Their strategy is to be visible at seminars and have transparency about their project experience. By doing so, they have received a positive reputation among the domestic institutions and the business network.

In the India project, Scatec Solar understood that it was necessary work closely with local NGOs which were familiar with the local customers and responsible to understand and target their needs. They worked also close with the authorities in India. To be competitive in their offerings they adjusted their business model to what the rural customer were paying for other energy solutions (kerosene, wood, and diesel). Scatec Solar confirms proposition G1.

The Getek interviewee, who has a long experience in African relations, paid an attention to the importance of building trust in the business relations when targeting Uganda. He said that the trust is build up when you come back for a second time, to show your commitment. It is also important to meet the right people in the country, to show that your presence and interest to operate in their market. He also mentioned that having close relations to the Norwegian consultancy can be helpful to have a quality stamp when meeting the right people and building trust, but it is not necessary. Getek confirms proposition G1.

G2. The interviewee expressed that the knowledge from the India projects has been very valuable for them; they gained a lot of experience on how to operate in collaboration with authorities in developing countries. Scatec Solar is aware of the importance of the uniqueness of local institutions that is why they cooperated with NGO's in the India project.

The India project was special case for Scatec Solar when they target the rural villages, with the goal to find a sustainable business model to later roll out on larger areas. They did not succeed in this because; the project was economy supported and the villages did not have to pay for the investment just the O&M, and their project was successful in one village but not the other, due to institutional differences between these villages that looked so similar for a foreign firm.

This result confirms proposition G2 that institutions differ a lot, also between nearby villages, and not so easy to move from market to market. But the Scatec Solar experience from the India was valuable in the experience to target and cooperate with authorities in developing country, and this is valuable also when they now target Africa as the interviewee expressed.

Normally projects for Scatec Solar are larger power plants there the customer are a country, region, village or a large energy provider. The way these make businesses are more similar and the experience is valuable also on other markets, also in the developing world.

The Getek interviewee mentioned that they had previous work experience in the Middle East, but this work was within consultancy. He did not consider this experience as valuable when entering Uganda, because of the countries differences. However, he stated that the experience they will gain in Uganda, have a great value when they want to target the neighboring countries in the future, this is because of their similar governments and ways of doing business. These findings confirm proposition G2.

5.8 Results from the analyze

| Proposition | Getek | | Scatec Solar | |
|--|---------|-------------|--------------|-------------|
| | Confirm | Confirm not | Confirm | Confirm not |
| A1. Firms enter the international market with loose commitment before they make any deeper investments | X | | X | |
| A2. Firms that internationalize follow two different paths, either a global or a regional internationalizations strategy | X | | | X |
| B1. Firms receive knowledge from the market they operate on before they move over to a nearby market | X | | X | |
| B2. When entering a market in a greater psychical distance, firms start with traditional export models before gradually moving into their other operation models, like sale subsidiaries. | X | | | X |
| C1. Networks influence is crucial for SMEs to start their operations abroad | X | | X | |
| C2. The firms trust to the networks are build up gradually | X | | X | |
| D1. SMEs need to know and adjust their competitive advantage when entering a international market | X | | X | |
| D2. Internationalization is important, and these activities affect other parts of the organization | X | | X | |
| E1. An internationalizing Born Global focus on generalize knowledge of international operations, while other internationalizing firms acquire knowledge on a specific market. | X | | X | |
| E2. Born global firms has a more suitable business model to move from one market to another market | | X | X | |
| F1. An entrepreneur, or someone in the manage team, with an international track record increase the possibilities for a more rapid internationalization process. | X | | X | |
| G1. Paid attention to the differences in Institutions are even more crucial when SMEs target markets in developing countries. | X | | X | |
| G2. International experience is valuable, but the level of value is different from market to market | X | | X | |

6 Discussion

Is it possible to find or develop a new explanation theory that is applicable, and that is independent of the firms' country of origin, overall strategy, size and other factors of importance? And, for how long will the theory be applicable given rapid globalization?

In this chapter, we connect the analysis from chapter 5 to the theory from chapter 3, and attempt to find evidence for how applicable the theories are for the case companies.

6.1 Stage model approach

The Uppsala model was developed at the end of the 1970s and was updated in the beginning of the 1990s. The model, developed by Swedish researchers, was based on the internationalization process of Swedish TNCs.

Given the model's careful stage approach to internationalization, it may be viewed as fully applicable for SMEs targeting uncertain markets in the developing world.

The model implies that rather than investing simultaneously in several countries, firms should take small, incremental steps and invest in one of a few of their neighboring countries. Then, as a firm grows in a given market, it can then enter new markets that are further and further away (Johanson and Vahlne, 1977). Since this theory and model were developed in the 1970s, geographical distance was naturally an issue, and entering neighbor markets was considered the safest way for a firm to begin to internationalize. In today's world, the issue of greater physically distant markets is less of a concern. Getek is a good example of this. After being active only in the Norwegian market, it decided to begin its internationalization in Uganda. This internationalization step seems huge, but was natural for Getek because the interviewee in this study and its partner, Trønder Energi, were familiar with this market, which limited the uncertainty and risk for Getek.

However, in Uganda, Getek has Infraco as its customer and exports its products to them. As the interviewee expressed, Getek sees itself working with the end customer in this market in the future, and when the time is right, it will start an office in Uganda. The statements made by the interviewee are very similar to the *establishment chain* presented by Johanson and Vahlne (1977). The *establishment chain* explains that firms formalize new market entries via a local agent, meaning that they first start with traditional export models. As sales grow, they

replace this agent with their own sales subsidiary, and as sales further growth, they begin production in the host country (Johanson and Vahlne, 1977). Since Getek is still in its first phase during its internationalization process, it is difficult to estimate whether it will follow the presented *establishment chain*.

The interviewee from Getek expressed that he sees the experience in Uganda as very valuable when it comes to further expansion in the neighboring East African countries. He mentioned that these countries are very similar in operations, and that the East African union allows them toll-free movement. These findings confirm the core argument for the Uppsala model, but when first present in Africa.

Getek confirm that physical distance is not longer an issue and a long process when entering Uganda. Getek entered Uganda rather quickly, which was possible given the support from Norwegian authorities in Kampala, and supported with a market research. Given the great Norwegian presence in Kampala, establishing a shared office is easy. Getek's presence in this market confirms the establishment chain with their plans for a subsidiary in Uganda. Given further expansion into nearby markets, Getek follows the origin of the Uppsala model (1977).

Scatec (Solar), as a born global, started its operations in Germany, where it started a joint venture. The initial step from Norway to Germany was natural given the great market in Germany, the largest in the world, and great silicon production facilities in Norway by other companies in the Scatec group. After first getting established in Germany, Scatec moved to neighbouring markets, such as Italy and Czech Republic, according to the Uppsala model. In addition to this expansion, Scatec Solar also had smaller projects in California and India. These projects emerged from an opportunity presented through their global networks.

Scatec did not take small, incremental steps. It started strategically in Germany, not because of any similarities with the Norwegian market, but because Germany's PV Solar market is the largest in the world. The way Scatec Solar operates does not follow the establishment chain in the Uppsala model, as it enters a market after conducting market research and evaluating the feasibility of the project. It then seeks partners to start a subsidiary or a JV. Scatec sees its market as global, and in addition to its European expansion to neighbouring countries, enters markets further away. Its operations in India, South Africa, the U.S. and Mali, confirm this strategy, which follows a firm's R&D strategy of focusing on new, emerging markets in addition to established and known markets.

The explanatory value of the Uppsala model is first and foremost outdated because it considers physical distance as important. The world is now more globalized; therefore, entering a distant market is not an issue and does not require incremental internationalization steps. However, the Uppsala models establishment chain is still present, but first when a firm has already entered a market, and want to expand from there. The companies in the study confirmed that the need to first target neighbouring countries for internationalization is not needed and instead they used their networks and capabilities during the early phase of internationalization to gain access to more distant markets.

6.2 Network approach

All firms involved in international business likely agree to the importance of networks, but the two firms in this study relate to their networks in different ways. Johansen and Vahle (2009) expressed *“that a firm’s success requires being active and established in one or more networks”*, and Scatec Solar takes this approach into account. Scatec Solar has a strategy to be open about its experiences in conferences and seminars. Johansen and Vahle expressed further that, *“when a firm is active in those networks it’s considered as an “insider” and helps the firm to learn, and build trust and commitment, that are a necessary step stones to successful business development”*. Because of their openness and activity in the different networks to which Scatec Solar is an insider, it receives in return a well-known reputation and inclusion in different projects from commercial entities as well as from the authorities. As both companies have attended to open seminars during the spring 2011 where companies share their experiences with other firms who evaluate projects abroad. Attending such seminars confirms the observations made by Johanson and Vahle (2009) that being active in such networks can offer the potential for learning from each other and building mutual trust and commitment, which can create good preconditions for internationalization.

Ruzzier (2006) argues that if relationships among firms are viewed as a network, it can be argued that firms internationalize because other firms in their (inter)national network are internationalizing. Ruzzier’s observation seems true for Norwegian firms that offer renewable energy solutions. In recent seminars (February 2011) at Norad and at Energi Norge, the speakers and members shared their experiences to enhance their members in evaluating similar projects abroad. In these seminars, the authorities provide information on the support that an SME can expect from authorities. Johanson and Vahlne(2009) note that network

relationships have a significant impact on which foreign market is chosen and the mode of entering that market. This is confirmed by Getek, which chose Uganda because of its relationship with Trønder Energi and the experience of the interviewee.

The Scatec interviewee expressed that different business opportunities abroad for Scatec Solar have come from their founder's network. Ruzzier (2006) mentioned the importance of social relationships with other individuals with respect to internationalization. Ruzzier observed that these social relationships are often concentrated with one person at the firm, and they are extremely important for entrepreneurs and their businesses. These observations are found both at Getek and at Scatec Solar.

The interviewee in this study from Getek, as mentioned, had extensive experience with the African continent, and developed social relationships on the continent over many years of operating. His knowledge and understanding of Africa were very important resources for the Getek organization, and helped it launch the Uganda operations. The broad knowledge of Scatec Solar's founder, his reputation in the international solar energy industry and the social relationships he developed were important factors in many of Scatec Solar's projects abroad. The social network mentioned by Ruzzier (2006) as a sub-network within a business network is of great importance and affects both firms in this study.

An open network serves the purpose of transforming information through the network, while a closed network is focused on social exchange, trust and shared norms (Walker et al., 1997). Getek's relationship with Trønder Energi can be considered the result of a closed network. Trønder Energi became a stockholder in Getek and helped it with its network using Trønder Energies previous experiences from Uganda. Both companies are from the same area in Norway and operate in the same business, confirming that markets consist of networks of firms linked to each other in diverse, complex and sometimes invisible patterns (Johanson and Vahlne, 2009). Scatec Solar is a global player active and visible in both open and closed networks. The Getek interviewee informed us that Getek valued highly the network and experience that its partner, Trønder Energi, brings. He stated that the value of networks meetings and close connections with embassies was not a priority, but developing trust with the customer was important. Getek prioritizes closed networks and may be viewed as an international actor with a regional focus, similar to the strategy of other Norwegian energy companies with respect to their internationalization activities.

Johansen and Vahlne (2009) mentioned that firms decide to either increase or decrease their levels of commitment to the different networks in which they are active. Such varying commitments are prioritized differently and developed gradually in both case companies. The Scatec Solar interviewee mentioned the importance of being active in attending seminars and talking about their experiences, while Getek's interviewee did not mention that they did this. We argue that both firms prioritize differently the value of joining a network.

In its international projects, Getek saw its relationship with Trønder Energi as having great importance, but it takes a careful approach to networks abroad, and develops them gradually by first testing foreign partners on mutual projects to determine if they increase or decrease their commitment. Scatec works similarly to Getek. It first works with a partner and if the project is successful, increases its commitment to that partner and network, and then enters into a joint venture. This was the case in South Africa.

Both firms in the study have similar but different ways of approaching their networks. Being active in networks is very time consuming and Getek prioritized having close relationships with their partners and customers, while Scatec Solar also sees value in being active in open networks.

The explanatory value of network theories are confirmed by this study, and the value of networks are accepted in international business. This study has shown how participation in networks could be carried out in different ways, depending on how the firms prioritize this activity.

6.3 Resource-based approach

Without a doubt, having an overview of the internal and external resources of a firm is important. The research-based view has served as a base for many other internationalization theories. Moreover, the identification of the key resources of a firm has many different interpretations. An example is Westhead (2001), who considered that *“the key resource especially for small businesses is the entrepreneur's human capital and their skills in the fields; management know-how and industry specific know how.”*(Westhead et al., 2001). Getek confirmed this consideration. With respect to Getek's commitment to internationalization, the interviewee in our study has the relevant management and industry specific know-how related to the African market. Westhead's consideration can be confirmed

by Scatec Solar as well, as its founder Dr. Bjørseth has an impressive entrepreneurial record and reputation, and a background in R&D as the founder of REC, one of the largest producers of silicon wafers.

Barney (1991) named the products that a firm offers the *physical resources of the firm*. A patent on a firm's products gives it a sustainable advantage. Neither Getek nor Scatec Solar own a patent or other IPR on these products, and many international providers have the same or similar solutions to provide. They must then turn their human and organizational resources into competitive advantages. Scatec Solar has a great network of technology suppliers, international finance entities, domestic and global authorities and R&D resources in this sector, giving it a competitive advantage that is difficult to replicate.

Barney (1991) argues that firms obtain a sustained competitive advantage by implementing strategies that exploit their internal strengths in response to environmental opportunities, while neutralizing external threats and avoiding internal weaknesses.

From the analysis, we saw that Scatec Solar did not make specific changes in its management or offerings to strengthen its resources when entering the Indian project. However, its director of strategy spent a lot of time meeting and talking with African and Asian authorities. By doing so, Scatec Solar showed a *dynamic ability for organizational learning* that is required to develop new resources, as mentioned by Peng (2001).

Scatec Solar manages to retain a close network to different technology suppliers without being bound to any one party. This is possible because of its reputation, which gives it bargaining power to set conditions, exemplifying what Oliver (1997) describes as *external strategic forces by the firm*.

Resources that are not present in-house can be acquired within a firm's network (Ahokangas, 1998). Getek confirmed this with its connection to Trønder Energi, which gave it intangible resources in an expanded network and experience from the Ugandan market.

During the interviews, both companies expressed that their competitive advantage towards Asian competitors was a higher focus on quality and HSE (Health Security Environment) with respect to both their products and their project management. Scatec Solar proves this by promoting itself as “the first turnkey PV supplier with triple ISO certification for quality, environment and health”, and uses this as a competitive advantage.

Summarizing the RBV; the theory forms a basis, and several researchers have combined it with other theories that make it applicable. The validity for the theory is found in this case study, but it doesn't explain the internationalization process itself.

6.4 Born Global approach

The born global approach was developed in the early 1990s and was based on a result from a study of Australian SMEs. The researchers that developed the BG theory disclosed that these BGs did not follow the stage model (Uppsala model), and were interested in the management of these firms. These firms were high-technology companies, obviously a sector more affected by the globalization process.

“A Born Global firm within this context will likely have annual sales of less than \$50 million, less than 500 employees and achieve a 25% export rate n...” (Persinger et al., 2011). This definition forecloses companies with a divided focus and that have a portfolio of products. Most of these products target a domestic market but a few are offered to a global market. (Axinn and Matthysens, 2002). Getek exemplifies this type of firm. The Norwegian market remains the main target market for Getek and here they have broadened their portfolio with *“building integrated systems”* instead of searching for a broader international market and staying with their range of products. In addition to this domestic focus, Getek has established a subsidiary, Getek International.

Several of Getek's installations are at telecommunication base stations placed in rural areas in Norway. With this technology, international telecommunication operators represent a huge market, especially in the developing world where the number of subscribers increases rapidly and the need exists for an off-grid power supply similar to the one that Getek can offer. This gives Getek's products the potential for global success. However, competition is strong and Getek does not own IPR to secure this market; rather, they have to compete using other advantages, such as quality products and project management.

In the case study, we defined Scatec Solar as a BG because it targets the entire world. As Madsen (2002) refers to a McKinsey report: *“These firms view the world as their marketplace from the outset and see the domestic market as a support for their international business.”*(Madsen, 2002). In this study, we also disclose that Scatec Solar moved from first operator in one market to then targeting a nearby market, similar to the stage model. Also, the

way they enter the market, “*with loose commitment*” as the interviewee expressed, confirms that some firms are more risk-prone than others. Scatec Solar is defined as a born global but has a market-entering strategy near that of a stage approach, which does not conform to the BG strategy.

Scatec Solar, which does not have a domestic project in Norway, but as the McKinsey report disclosed, “*sees the domestic market as a support for their international business*”. In Norway, Scatec has a closed network with the authorities and with other firms in the Scatec group.

Moen (2002) disclosed in his research of Norwegian companies that *the born global’s decision maker has a global orientation and the market conditions were the most important factors*”. Scatec Solar also confirms these findings. The firm has a global approach and evaluates new markets based on their conditions and not based on distance. Scatec Solar has a broad network of different technology suppliers, and also a global financial network, making it possible for them to manage these global projects.

The born global approach is applicable to Scatec Solar’s global strategy. But the stage approach that Scatec Solar has shown when entering closed by markets in Europe can be occasionally the result of similar policies and regulations for this PV technology that create the same good conditions in a nearby market. The approach of Scatec Solar is still similar to that of a BG in carrying out projects all over the world.

6.5 International Entrepreneurship approach

The international entrepreneurial approach highlights the importance of individuals and their social networks. The importance of individuals is present at Scatec Solar, where the founder has an international reputation and a great network that Scatec Solar can harvest. In the case of Getek, the entrepreneurial experience of the CEO at Getek AS and the international experience of the interviewee, an employee at Getek International, are viewed by the firm as resources and not as individuals. “*Corporate entrepreneurship can be defining as when individuals inside organizations pursue opportunities without regard to the resources they currently control.*” (Stevenson et al., 1989).

This theory also highlights valuable international experience. But if the world becomes more globalized and trade barriers decrease, this would decrease the need for previous international

experience. Additionally, most countries support their firms in different manners when going abroad and when supporting firms that lack this experience.

It is also doubtful whether a firm needs to have internal *international experience* if such experience is within its network, as exemplified by Getek, which can leverage the experience that Trønder Energi received in Uganda.

Characteristic to entrepreneurs is that they have both the willingness to take risk and the ability to make marked changes to reach their goals (McDougall and Oviatt, 2000). When Getek was convinced of the opportunity in Africa, it established Getek International, hired employees to target this market, and also built a new office in Trondheim. This was based on the entrepreneurial approach of the CEO and Getek.

The international entrepreneurship approach and its relevance in this study is that the influence of individual managers, as seen at both Scatec Solar and Getek, is important for internationalization. Studies show that international experience can be shared by different individuals or by the entire organization as a resource to the firm.

6.6 Institution-based approach

“Business strategies that only rely on leveraging the strengths of these market environments outperform those that focus on overcoming weakness” (London and Hart, 2004). Even if firms put effort into understanding the local institutions, it is not easy to deal with. The Scatec Solar project in India in two very similar villages had important institutional differences and confirms the importance of a foreign firm’s understanding of the local environment when targeting a new market. As Peng (2009) argued, *the accepted resource based view and the industry view have to be added with another view, the institution based view.* (Peng et al., 2009).

But how much attention must a firm give to the institutional differences, and does the firm need to adjust its management/performance and offerings? If a firm’s strategy, exemplified by Scatec Solar, is to target governments and large energy providers, may it need just limited knowledge about social behaviour and end customers? As the empirical study and the case study with Scatec Solar showed, it is possible for a firm to implement a strategy with a local partner that cares about these issues, as the NGOs did in Rampura and Gopalpura. This finding argues for the relevance of the theory, and depends on a firm’s overall strategy.

Philips et al. (2009) argue “*it’s not just a question of the institutional uncertainty in the country but also a question of the degree of difference*”. What does this proposition mean for a distance market? Is the geographical or the social distance most important? When Scatec Solar target government in India and in South Africa they faced more similarities, even if it was a great physical distance, then they did when targeting different customers in India; the poor villages and the telecom companies.

Values in developing countries differ markedly from values in Western countries, given factors such as strong family bands, strongly connected private and business entities, societies consisting of different ethnics groups, hierarchical thinking and different religions. These differences make such countries difficult to understand and target with Western standards. (Jansson, 2008p.158-159). The interviewee at Getek, who has years of experience in African relations, paid attention to the way that doing business in Africa differs from Western ways. As he argued, it was important to first show the firm’s presence and meet the right people in the country to demonstrate an interest in operating in their market. This confirms hierarchal thinking in institutions and that building trust was essential to doing business. He argued that, “*You never sell at the first meetings, and when you come back you show commitment.*” When Getek decided to target Africa, it employed a person with knowledge in doing business there. This decision confirms the importance that Getek places on institutions, and as Peng (2009) argues, the institutions have to be treated more than background if a firm wants to succeed in this market.

The Scatec Solar example confirms that it is possible to outsource this activity of focusing on institutions to partners for success in a global market. Firms focusing on their core businesses and their place in the value chain confirm the *economic approach*. The *economic approach* is criticized because it is valid for established businesses and not for explaining how a firm starts to internationalize. A model should be able to both explain and predict.

Scatec Solar shows how a firm can focus on its core business and outsource other activities. It is also possible to decide one’s place in the value chain and pursue export activities to minimize risk, as exemplified by Getek. This focus is the *economic approach*.

The institutional approach is an important issue for a firm’s international success, but to manage these activities, it is possible to use an overall firm strategy to outsource or push these activities to partners downstream in the value chain.

7 Conclusion

Over the years, researchers have attempted to develop new theories or combine the available theories to make them more applicable:

- The resource-based view (RBV) is the basis for several other theories;
- Ahokangas (Ahokangas, 1998) suggests combining the network and RBV theories;
- Porter's industry structure (the five forces) (1980) complemented the RBV with external circumstances;
- The entrepreneurial approach highlights the RBV of individuals;
- Peng (2009) argues mixing the Institutional + RBV + Industry based views;
- Jansson (2008) argued for the "institutional network approach" that combined networks and institutions;
- Soulimane (2007) argues that the RBV was the glue in the stage approach, the economic approach, and the network approach.

This need for combined theories could be the result of validity issues, but there are limits to each theory. When these theories attempt to describe what firms experienced in the study, this depended not only on when but where, as well as the kind of firms in the study. That theories should be valid without modification these days is not expected when the circumstances for internationalization firms pursuing internationalization change enormously.

As the initial research problem describe, because of globalization the explanation and predictable validity of earlier theories are limited. The effects of globalization differ between technology sectors, and the "high tech" and IT sectors are probably more affected because of the innovations in development (*virtual teams*), cooperation (*project platforms*), and distribution (*e-commerce*), making this sector more or less independent on physical distance. The firms in this study construct and build energy supplies, and are more affected of the globalization, in the areas of development and cooperation, but less affected due to commissioning.

These new markets in the developing countries that have been made more accessible through globalization are now seen as significant emerging markets and attractive market opportunities. These markets have considerable differences in what foreign firms are accustomed to, and to understand these markets is critical. The firms in this study target

decision makers in the country, and then it is possible to have a more generalized business model, which is applicable on a global market.

The purpose of the study was to see the explanatory power of internationalization theories affected by the globalization. As mentioned above the affect of globalization differ between technology sector and the target market. The firm in the study are affected, but less than other sectors. With this in mind, it was natural to expect that the theories are partly valid and partly invalid for Scandinavian SMEs with PV projects in the developing world. The analysis summary shows that all the theories in this study have a possibility to describe a part of the internationalization process. Due to several factors discussed in chapter 6, neither of the theories can describe the process alone. The findings in this study have confirmed the research problem and answered the research question..

Implications for researchers: Globalization will continue, and a more updated theory to explain SME experiences and predictions is welcome. Especially for SMEs who target the developing countries.

Implications for policymakers: The study discloses the differences between firms in their internationalization process. Some have international experience while others do not. The effect of globalization, such as decreased trade barriers and access to international funds, creates possibilities for domestic SMEs to compete in an international market. Initially, SMEs need to be encouraged and convinced of the opportunity, and then receive tailored support to target their needs and enhance their possibilities for success.

7.1 Recommendations for further research

We argue that this study is a good base for further research and suggest following recommendations.

Several firms have attempted to internationalize, but given bad experiences they did not proceed with further projects abroad. We suggest quantitative research on these firms and a study on the barriers they faced. A brief explanation of whether they received public support, and the manner in which they arranged their projects are needed to clarify the results.

We see also the need for a wider research among a number of other similar firms to confirm each other's experience and process of internationalization.

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Attended conferences/seminars:

Feb 2 , 2011, **Innovasjon Norge**, "Bistandskonferensen 2011"

Jan 26 , 2011, **Norad / IFC** , "Local impacts of big projects - the role of strategic community investment and local capacity building "

Feb 8 , 2011 , **Energi Norge** , "Private investeringer i fornybar energi i utviklingsland – hva har vi gjort for å lykkes ?"

Appendix

Interview Guide in English:

a) **Intro:** (5-10min)

- a. Short introduction about our thesis
- b. Purpose of the interview
 - a. Signate an NDA if its desirable
- c. How should the data be used
 - a. Our summary can be send over if desirable
- d. Option for Anonymity

b) **About the Individual** (10 min)

- a. Name/Anonymity
- b. Position
- c. Background / Professional career

c) **About the Firm** (15 min)

- a. We have read the available information on your homepages.
 - a. Is there something you want to add about the history of the firm?
 - b. About your costumers today and presumptive costumers?
- b. Could you brifely describe the current situation (phase) of the firms internationalization process.
- c. And about the project in Rampura and Gopalpura India.
- d. Briefly about the firm's Business model
 - Business idea and strategy
 - The market you operate in
 - Competitors
 - Do the firm outsourcing activities? (Turnkey delivery)
 - The firms place in the value chain.
 - i. plans for expansion?
- e. What distinguish your firm from the competitors?
 - a. Strengths in the competitive environment
- f. Export and internationalization experience.

d) About the Networks of the firm (10 min)

a) Network in Norway and International

- a. Was it a strategy intension (long term/short term) with this contact or just fortuity.

| | Formal | Unformal |
|-----------------|--------|----------|
| Business level | | |
| Indivdual level | | |

e) About the firms decision to enter a internationalization process.

- a. Brief background and history info, long/short- term project?
- a. Was this Rampura and Gopalpura India the firms first international project in a developing country?
- b. What was the main issue behind this project. Profitable?, strategic? etc.
- b. Why was the specific country chosen?
- c. Was there any alternative countries for the firm at the same time? And why weren't they chosen?
- d. Was the internationalization process planned or was it specific circumstances?
- a. Was the specific project planned or was it specific circumstances?
- e. Did you know this marked(business and geografical) from before?
- g. Which role did additional services such as consulting, finances, insurances, political situations, norsk virkemiddelapparat, have on the firms decisions to internationalize?

a) How the firms manage the challenge (15 min)

- a. How did the firm raise their competence to internationalize into developing countries?
- a.to carry out the specific project?
- b. How did the decision of internationalization effect the organization? (Changes)
- c. How did/or plan the firm enter the market?

- a. Export
- b. License
- c. FDI (JV or subsidiary)
- h. How did the firm find and chose international partner?
 - a. Was it a good choice? Have the firm change partners several times?
- i. Did you met upon any unforeseen challenges?
 - a) How where these challenges dealt with?
- j. Based on this international experience, is it any plans to enter new markets?
 - a. How “valid” are the recently recived experience when targeting “next” developing country?
 - b. Is it through this process/project discloused a need of new/more resources of the firm. And if so how will this be recived? Incorporate, outsourcing...
- k. Have the experience also bring benefits for the firms national (other) markets?
- l. Are you satisfied with the performance of the firm’s international operations?
What could be done differently?

f) Is it anything you would like to add?

Interview Guide in English:

a) **Intro:** (5-10min)

- a. Short introduction about our thesis
- b. Purpose of the interview
 - a. Signate an NDA if its desirable
- c. How should the data be used
 - a. Our summary can be send over if desirable
- d. Option for Anonymity

b) **About the Individual** (10 min)

- a. Name/Anonymity
- b. Position
- c. Background / Professional career

c) **About the Firm** (15 min)

- a. We have read the available information on your homepages.
 - a. Is there something you want to add about the history of the firm?
 - b. About your costumers today and presumptive costumers?
- b. Could you brifely describe the current situation (phase) of the firms internationalization process.
- c. And about the project in Bugala Island, Uganda.
- d. Briefly about the firm's Business model
 - Business idea and strategy
 - The market you operate in
 - Competitors
 - Do the firm outsourcing activities?
 - The firms place in the value chain.
 - i. plans for expansion?
- e. What distinguish your firm from the competitors?
 - a. trengths in the competitive environment
- f. Export and internationalization experience.

d) About the Networks of the firm (10 min)

a) Network in Norway and International

- a. Was it a strategy intension (long term/short term) with this contact or just fortuity.

| | Formal | Unformal |
|-----------------|--------|----------|
| Business level | | |
| Indivdual level | | |

e) About the firms internationalization process. The Decision.

- a. Brief background and history info, long/short- term project?
- a. Was this Bugala Island, Uganda the firms first international project?
- b. The main issue behind this project. Profitable?, strategic? etc.
- b. Why was the specific country chosen?
- c. Was there any alternative countries for the firm at the same time? And why weren't they chosen?
- d. Was the internationalization process planned or was it specific circumstances?
- a. Was the specific project planned or was it specific circumstances?
- e. Did you know this marked(businmess and geografical) from before?
- g. Which role did additional services such as consulting, finances, insurances, political situations, norsk virkemiddelapparat, have on the firms decisions to internationalize?

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- a. Export
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- j. Based on this international experience, is it any plans to enter new markets?
 - a. How “valid” are the recently recived experience when targeting “next” developiong country?
 - b. Is it through this process/project disclosed a need of new/more resources of the firm. And if so how will this be recived? Incorporate, outsourcing...
- k. Have the experience also bring benefits for the firms national market?
- l. Are you satisfied with the performance of the firm’s international operations?
What could be done differently?

f) Is it anything you would like to add?

ROADS TO PROSPERITY

Africa has vast, under-exploited mineral reserves growing more precious by the day as commodity prices soar. But with its transport infrastructure in ruins, nobody has been willing to make the investment necessary to get the goods moving – except, now, China. **Lucy Corkin** describes how Chinese interests are racing to revive and extend Africa's road and rail networks

In November 2006 at the Forum on China Africa Co-operation (FOCAC) in Beijing, President Hu Jintao committed China to establishing three to five special economic zones (SEZs) in Africa within three years.

China had been talking to key African states seeking investment concessions in order to establish these zones. It wants exemptions from tax and labour rules, which would give Chinese companies a decided advantage over competitors, but in return the heightened productivity of the SEZs should attract considerable foreign investment and fuel growth.

The first of these SEZs was announced by President Hu a few months later during his February 2007 Africa tour. It was to be in Chambishi, deep in the Zambian Copperbelt. At the centre of Chinese interests in the first SEZ is Chambishi Mining Plc, owned by NFC Mining Africa Plc, which in turn is 85% owned by China Non-Ferrous Metals Industries Foreign Engineering and Construction Group (CNFC China). The remaining 15% is owned by Zambia's ZCCM Holdings Plc.

China promised a US\$800 million investment package that includes credit for Chinese firms to tap into and a US\$200 million copper smelter which, it is claimed, will create up to 60,000 local jobs. The deal secures a strategic supply of copper for China and access to cobalt, diamonds, tin and uranium, commodities it badly needs.

Another SEZ could be located in Dar es Salaam, Tanzania. Linked by a rejuvenated rail line to Zambia's Copperbelt, an SEZ here would be a strategic trans-shipment hub on Africa's east coast.

In anticipation of these zones, Chinese investors have taken a keen interest in redeveloping the derelict transport networks that cross the huge continent because they are essential for getting raw materials out and manufactured goods back in. A prime example is the defunct 1300-km Benguela line that links the Angola west coast to the Congolese mining town of Lubumbashi. Another, running from the interior

east to the Indian Ocean, is the old Tazara line from Zambia's Copperbelt to Dar es Salaam.

This focus on new railways and also roads promises significant benefits for African countries, principally Angola, Congo, Zambia and Tanzania. Transport costs will be reduced, leading to a potential boost in regional trade. Mineral-hungry China also stands to benefit because it will unlock Africa's as yet under-exploited resources.

That, at least, is the idea.

A GRAND EAST-WEST VISION

The Caminho de Ferro de Benguela – the Benguela Railway – was an important transport artery for Angola. Built by the British government in 1899, it was almost completely destroyed during the country's 26-year civil war. Currently only a 150-km section between the towns of Lobito and Cubal on Angola's west coast is operational.

In January 2006, the Angolan government announced a project to refurbish the railway at a cost of US\$300 million. The project was to be financed and undertaken by the China International Fund Ltd (CIF), a Hong Kong-based fund management company, and is being overseen by Angola's National Office for Reconstruction, known by its Portuguese acronym, GRN.

The principal railway line, following restoration, would run 1300km from Benguela to Luau, near the border with the Democratic Republic of Congo (DRC). The railway also has a link to Lobito, 700km south of Luanda. There is a strong possibility that extensions to Uige and Zambia will be built connecting the Zambian copper mines to the Angolan ports, of clear benefit to both countries.

To the east lies the second part of this grand, east-west vision: the Tazara Railway, which links Kapiri Mposhi in Zambia's Copperbelt to Tanzania's Dar es Salaam, a prospective Chinese SEZ, as mentioned above. The Tazara (an abbreviation of Tanzania-Zambia Railway Authority) was built by the Chinese Railway Engineering Corporation between 1970 and

ESSENTIAL CONNECTIONS

THE BENGUELA RAILWAY: Proposed to run 1344km from Lobito to Luau in Angola. Towns served include: Lobito, Benguela, Cubal, Caála, Huambo, Kuito, Luau.

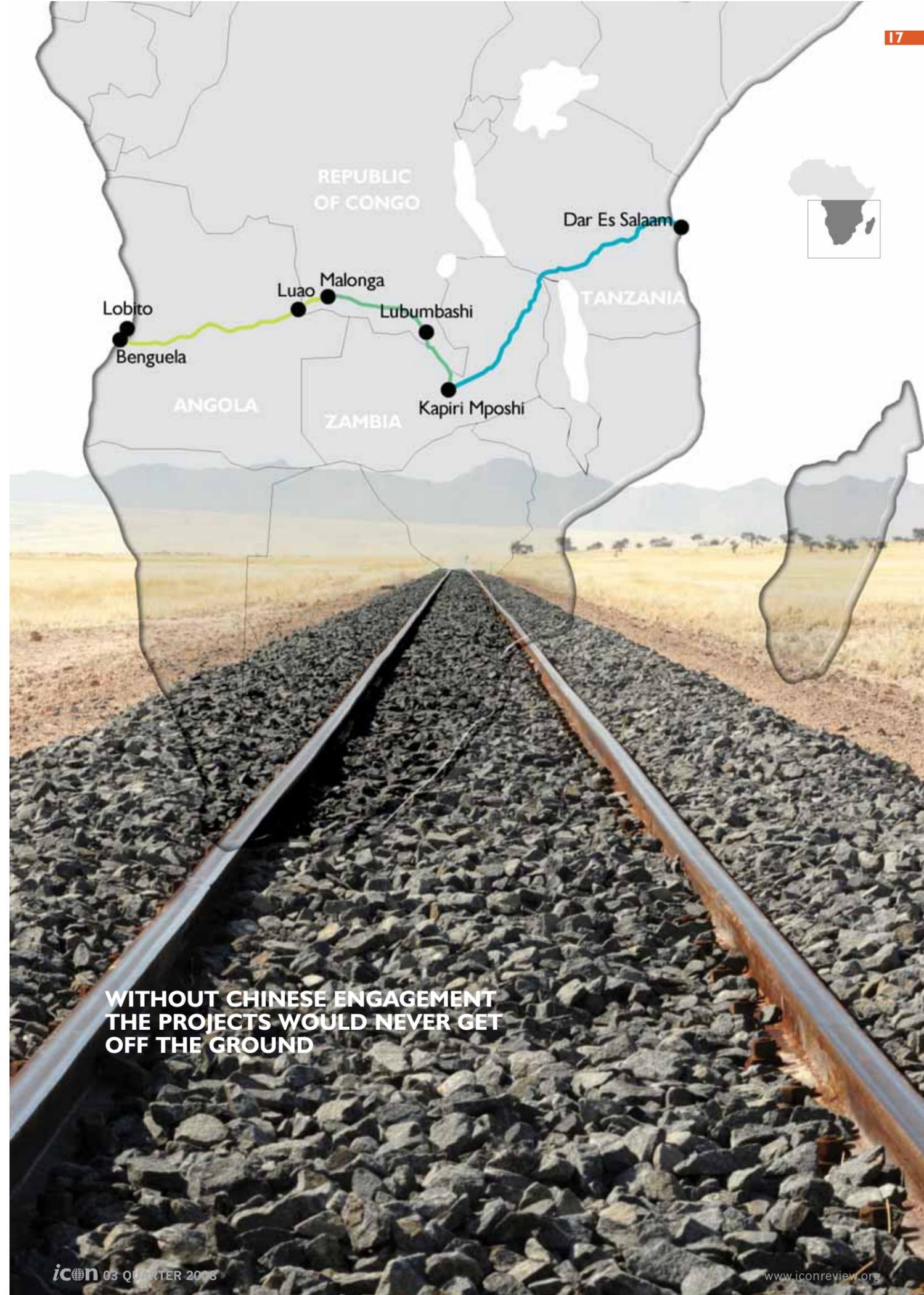
THE TAZARA RAILWAY: To rejuvenate the 1860-km line from Kapiri Mposhi in Zambia's Copperbelt to Tanzania's Dar es Salaam. The towns it is likely to serve are: Kapiri Mposhi, Serenje, Mpika, Kasama, Nseluka, Tunduma, Mbeya, Mlimba, Ifakara, Kidatu, Dar-es-Salaam.

THE LINK: Proposes to push the Benguela Railway line beyond Luau in Angola to Lubumbashi, DRC, and on to Kapiri Mposhi in Zambia where it will meet the Tazara line.

1976, after which it was handed over to the Zambian government. Constructed at the height of the Cold War hostilities with an interest-free loan of US\$500 million, the railroad was China's largest turn-key foreign aid project at the time and was of vital strategic importance for land-locked Zambia.

Chinese investors have since shown interest in the rehabilitation of the historic Tazara Railway. Who, exactly, is not yet clear. It appears that the work is only at the tender stage and various Chinese companies have indicated their interest in bidding. I have not come across any further information regarding company names or financiers, however.

The rehabilitation of the Benguela and Tazara railways is a recognised priority in terms of regional integration. Another is joining the two. In April 2005, Angola and Zambia signed an MOU concerning the re-linking of the two countries' rail systems. And a pre-feasibility study prepared by the Great Lakes Forum on the Benguela Railway project in 2006 proposes the rehabilitation of »



**WITHOUT CHINESE ENGAGEMENT
THE PROJECTS WOULD NEVER GET
OFF THE GROUND**



War and underinvestment have led to the deterioration of Africa's considerable transport links

» the line beyond Luau in Angola to Lubumbashi, DRC and to Zambia (at the small, rail-hub town of Kipiri Mposhi) where it will meet the Tazara line.

Such a Benguela-Tazara line would bisect sub-Saharan Africa, forming an east-west transport corridor that defies the traditional north-south alignment of many of Africa's colonial railways.

The result could be dramatic. Currently, most of Zambia's exports go via South Africa's ports, of which Durban is the most important. The Benguela link could redirect Zambia's copper to the Atlantic coast, a major boost for the port cities of Angola. A similar effect was seen after the establishment of the Tazara Railway linking the Zambian copper belt to Dar es Salaam.

Interestingly, Chinese diplomats and construction companies are not seeking to reinvent the wheel. Both the Benguela and Tazara lines were important transport arteries in previous decades but fell into disuse through war and fiscal mismanagement. It is convenient for China that the rehabilitation of both of these lines is endorsed by the New Partnership for African Development and several regional economic communities whose lack of funds and capacity has thus far prevented them from initiating the projects themselves.

CONGO'S US\$9BN WINDFALL

There are more examples of Chinese interests backing much needed infrastructure in Africa. A contract was signed in April 2008 between the DRC and a consortium of Chinese companies and China Exim Bank. The total value of the loan provided through the contract is US\$9 billion. Of that, \$6 billion is to be spent on infrastructure refurbishment: 9000km of roads and railway tracks, including a 3200-km railway link between Sakania, in resource-rich Katanga Province near the Zambian border, to the DRC port of Matadi. The loan will also finance the building of two dams, hospitals, schools, low-income housing,

HOW THE AFRICAN COUNTRIES THEMSELVES WILL GAIN REMAINS TO BE SEEN

hotels and apartment buildings.

The remainder of the money will be used for much needed rehabilitation of DRC's mines. As part of the deal, China Railway Group Limited and Sinohydro Corporation will have a 68% stake in a joint venture with DRC's national Gécamines. The loan will be repaid through toll road revenue, the joint-venture's profits and mining bonds. Through the agreement, the Chinese consortium received the rights to mine more than 10 million tonnes of copper and 600,000 tonnes of cobalt, much needed in the manufacture, among other things, of electronic goods.

BOGGING DOWN IN BENGUELA

The vision may be grand, and exciting from a sub-Saharan development point of view, but plainly it is not going to be smooth sailing. The Benguela project, initially estimated to take 20 months, was supposed to have been completed in August 2007. Work, however, has barely begun. By August 2007 only a skeleton crew had assembled in a few logistics and workers' camps between Lobito and Benguela, as well as Huambo. These workers were all Chinese.

Why the delay? Angola's GRN (Office for National Reconstruction) blamed it on the logistical challenges of such a large undertaking in a country with minimal existing infrastructure.

It appears that in their eagerness stakeholders ignored key factors. For instance, in Moxico, one of the provinces through which the railway will run, heavy rainfall makes work possible only four

months of the year. According to the GRN, the feasibility study is being conducted simultaneously to the preparative work. The Angolan government, perhaps with an eye on the election calendar, seems to have prioritised speed over quality.

For its part, the Chinese financier, China International Fund Ltd (CIF), was overseeing the execution of a project funded by an oil-backed loan. The loan is guaranteed, so the success or failure of the project itself would not influence CIF's profits.

There were also, in the end, funding problems. Somewhat astoundingly, in September 2007 it was announced that CIF had run into financial difficulty, and the Angolan Ministry of Finance was obliged to raise capital by issuing treasury bonds to the value of US\$3.5 billion in order to fund the project. (To clarify, the figure of US\$3.5bn covers a large suite of projects under the CIF-Angola framework agreement, of which the Benguela Railway is one. Others include a new international airport for Luanda, a new Presidential complex, highways and other infrastructure.)

While the project may yet be completed, it is unlikely this will occur for several years.

Elsewhere, Chinese involvement has not been welcomed unanimously. Of the DRC's US\$9bn infrastructure deal, members of the Congolese opposition in government have been highly critical. Vital Kamerhe, the president of the DRC National Assembly, called on the government to rethink the deal based on a true valuation of the minerals, since it has been calculated that China will reap returns of US\$80 billion for the US\$9 billion it is investing.

Tensions are also evident between Zambian workers and their Chinese managers. Some 500 miners were sacked in March this year at the Chinese-owned Chambishi copper mine when they rioted over pay negotiations, burning buildings and attacking a Chinese manager, who was hospitalised as a result – an ominous event so early in the life of the first of President Hu Jintao's announced special economic zones (SEZs).

It is clear that coordinated Chinese commercial interests will be well-served if the projects are carried out. How the African countries themselves will gain remains to be seen, though it is arguable that without Chinese engagement the projects would never get off the ground. Furthermore, Chinese interest in these economies has precipitated the entry of many other investors. And aside from linking port and mine for China's benefit, the railways should facilitate local commerce as well.

Nevertheless if these projects are not sustainably executed, their impact will be temporary. The onus is on African leaders to ensure doesn't happen. African governments, particularly those currently flush with commodity revenue, should be wary of mortgaging their futures for political capital and short-term gain. **icon**

● Lucy Corkin is Projects Director the Centre for Chinese Studies at the University of Stellenbosch, South Africa

Dagens Næringsliv

EN FRI DAGSAVIS

Sjefredaktør og administrerende direktør: AMUND DJUVE

Deltidstragedien

Kvinnene i de rødgrønne partiene er opprørt over statsminister Jens Stoltenberg. Årsaken er at Stoltenberg ikke vil gi etter for regjeringens partienes kvinnettverk som vil løfste retten til heltidsarbeid.

Det er riktig at mange jobber ufrivillig deltid. Ifølge Statistisk sentralbyrå er tallet 70.000, ifølge Forskningsstiftelsen Fafo er det snakk om 115.000. Flesteparten av dem er kvinner i helse- og sosialsektoren.

Fylkesleder i Vest-Agder Arbeiderparti Linda Verdal argumenterer for at man må bruke loven fordi det ikke finnes andre løsninger. Det er feil.

Dagens Næringsliv omtalte igår en fersk rapport fra fagbevegelsens egen forskningsstiftelse Fafo som har evaluert forsøkene med alternative turnusordninger

i Bergen kommune. Konklusjonen er entydig. Ifølge forskningsleder Leif Moland er alternative turnusordninger det tiltaket som har «desideret størst effekt» på å redusere omfanget av små stillingsbrøker i kommunene.

Årsaken er at disse turnusene, der ansatte jobber mer intensivt i bytte mot lengre

friperioder, gjør det lettere å få vaktplanene til å gå opp.

I tillegg viser det seg at de ansatte er mer tilfredse. De ansatte er fornøyde fordi brukerne har det bedre og fordi det er lettere å kombinere jobb og familieliv. Til alt overmål har de alternative turnusordningene greid å lokke flere menn over i omsorgsyrkene – en annen erklært målsetning for de rødgrønne kvinnettverkene.

Alle er kort sagt fornøyde. Problemet er bare at det er så vanskelig å få til mer av det samme. Fagforbundet har riktignok gått grønt lys for eksperimentet med alternative turnusordninger i Bergen, og statsminister Jens Stoltenberg oppfordrer partene i arbeidslivet til å eksperimentere videre. Men de rødgrønne sier bastant nei til å fire på Arbeidsmiljøloven som gir fagforeningene makten til å sette ned foten når de måtte ønske. Det ser det ut til at de vil gjøre temmelig ofte.

Kampen mot ufrivillig deltid er tydeligvis ikke viktig nok for de rødgrønne til at de vil legge til rette for alternative turnusordninger. Når erfaringene fra Bergen kommune er så opploftende, er det trist. Og helt unødvendig. Se også side 6-7

Bad

Den rødgrønne regjeringen har bestemt seg for å forenkle reglene for «å pusse opp bad i eksisterende bygg».

Det vil fortsatt være vanskelig å pusse opp bad i ikke-eksisterende bygg.

Featureredaktør: GRY EGENSEN
Nghetssjef: TOR M. NONDAL OG MAGNE STORDEL
Politisk redaktør: SOFIE MATHIASSEN
Redaktør DN.no: SVEIN-THORE GRAN
Utgitt av: Dagens Næringsliv A/S
GRUNNLAGT AV MAGNUS ANDERSEN I 1889



SPÅR LØNNSHOPP. LO-sjef Roar Flåthen varsler krav om betydelig lønnsvekst de neste årene.
Foto: Fredrik Naumann

Lønnsfesten

LO-sjef Roar Flåthen bruker Statistisk sentralbyrå som sannhetsvitne på at norsk økonomi tåler høy lønnsvekst. Han bør huske på at SSBs prognoser ender med en nedbygging av norsk industri.



PÅ INNSIDEN
BÅRD
BJERKHOLT

LO-sjef Roar Flåthen varsler betydelig høyere lønnskrav i årene fremover. Argumentasjonen henter han fra prognosene til Statistisk sentralbyrå.

«SSBs analyser viser at vi vil tåle høyere lønnsvekst fremover», sa Flåthen denne uken før han satte seg ned for forhandlingsbordet med NHO-sjef John G. Bernander.

LO-lederen viste blant annet til en artikkel av forsker Roger Bjørnstad i Dagens Næringsliv. Artikkelen konkluderer med at den høye norske lønnsveksten de siste ti årene har vært bærekraftig, og at den sørnorske lønnsveksten trolig vil fortsette. Til tross for at lønnskostnadene i Norge har økt vesentlig mer enn hos konkurrentene de siste ti årene, er nemlig lønnsomheten i bedriftene vesentlig høyere enn den var for ti år siden, ifølge Bjørnstad.

Årsaken til at det har gått så bra, er ingen uenig om. Bytteforholdet, det vil si prisforholdet mellom de varene vi eksporterer og de varene vi importerer, har utviklet seg i særdeleshet gunstig retning. Mens prisen på olje og andre råvarer har gått opp, har en stadig

større del av de ferdigvarene vi har importert kommet fra lavkostland som Kina. Denne byttehandelen har gjort Norge eksepsjonelt mye rikere på kort tid.

Ifølge SSBs prognoser vil den gunstige utviklingen fortsette de neste tre årene, men det ville være å tro på julenissen at den vil fortsette i all evighet. Heller ikke forskerne i SSB legger det til grunn når de skal lage langsigte fremskrivninger av økonomien.

En utredning byrået gjorde for Næringsdepartementet ifor, forutsettes det at bedringen i bytteforholdet vil være på 20 prosent i perioden 2009-2030. I den foregående ti års perioden

Dersom lønnsomheten er så fantastisk i industrien, skulle utenlandske bedrifter stått i kø for å etablere seg her

fra 1999 til 2009 bedret dette forholdet seg med 60 prosent. Det vil altså fortsatt gå Norges vei, men ikke på langt nær i samme grad som det har gjort de siste årene.

Dessuten er det en annen faktor som har endret seg dramatisk. Neddturen etter finanskrisen har ført til kraftige kutt i kostnadsnivået i andre land, spesielt innenfor eurosonen.

Dersom lønningene synker eller står stille rundt oss, og de fortsetter å stige like mye i Norge som de har gjort de siste

ti årene, vil industribedriftene nødvendigvis få det tøffere. De mest produktive og sterkeste bedriftene vil saktens klare seg, de som allerede sliter i dag vil ikke det.

Når bedrifter vurderer nye investeringer, vil de gjøre det der den forventede lønnsomheten er høyest. Dersom lønnsomheten i industrien er så fantastisk i Norge, skulle utenlandske bedrifter stått i kø for å lokalisere seg her. Det hadde vært hyggelig, men det er jo ikke tilfellet. Industrien flytter gradvis ut eller legges ned.

Det er et Bjørnstad kaller «avskalling av industribedrifter».

De fleste økonomer har et avslappet forhold til akkurat det. I økonomisk forstand er jo poenget med eksport av varer eller tjenester å skaffe valuta-inntekter som kan finansiere det landet trenger av varer og tjenester som det ikke produserer selv.

I Norge vil denne importen i fremtiden delvis finansieres av oljefondet, dermed trenger vi ikke så mye eksportindustri. Slik sett er LOs omfavnelse av SSB i lønnskampen ikke uten en viss ironi. I sine langsigte prognoser ser byrået store fordeler med en nedbygging av industrien. Det vil frigjøre arbeidskraft som det vil være større behov for i omsorgsyrker i offentlig sektor.

Det spør om de som jobber i industrien har et like avslappet syn på den saken som økonomene i Statistisk sentralbyrå.

bard.bjerkholt@dn.no
Bård Bjerkholt er kommentator i Dagens Næringsliv

Syv av de ti raskest voksende økonomiene i verden ligger i Afrika. Likevel opplever vi at norske investorer er skeptiske til å investere sør for Sahara, skriver **Kjell Roland** og **Heidi Berg** i Norfund.

De afrikanske løvene

INNLEGG Nye markeder

De fire store vekstøkonomiene i verden Brasil, Russland, India og Kina omtales ofte med akronymet BRIC. Norfund har i dag invitert mannen som for ti år siden forutså veksten i disse landene og introduserte BRIC-begrepet, Jim O'Neill fra Goldman Sachs Asset Management, til Oslo for å møte norske investorer.

O'Neill har altså tidligere vist seg å komme med klarsynte analyser av hvor veksten i verdensøkonomien vil komme i fremtiden. Når O'Neill snakker om nye markeder i Oslo i dag, vil utviklingen i Afrika stå sentralt.

Fra BRIC til BRICS: Inspirert av begrepet har de fire BRIC-landene ingått et politisk samarbeid. Noe overraskende inviterte de på selveste julaften ifjor Sør-Afrika med i denne gruppen (som da ble til BRICS). Basert på økonomiske analyser er ikke Sør-Afrika en av de raskest voksende eller største økonomiene. Det er ingen tvil om hvorfor Sør-Afrika ønsker seg inn i gruppen. Samarbeid med verdens store vekstøkonomier kan hjelpe på mange områder. Spørsmålet er hvorfor de langt større landene ønsker å ha Sør-Afrika med i et samarbeid.

Svaret finnes ved å se på Afrika sør for Sahara som en helhet. I regionen er Sør Afrika den mest utviklede økonomien og inngangsporten til en rekke omleggende markeder. Det finnes svært store mengder naturressurser i regionen, en åpenbar motivasjon for blant annet Kinas Afrika-fokus. De økende matvareprisene vi ser i det internasjonale markedet må også tas med i totalbilde. Det er et underskudd på mat alle- rede i dag, og over en fjerdedel av verdens dyrkbare mark er i Afrika sør for Sahara. Og ikke minst: Med en total befolkning på nærmere 900 millioner og en forventning om at denne vil nå 1,5 milliarder i 2050 har regionen et enormt potensial som marked også for salg av varer og tjenester.

Om man ser på den økonomiske utviklingen i afrikanske land med stabile styresett er den identisk med vekstkurvene for de asiatiske tigrene over de siste 30 årene. Man forventer at syv av de ti



AFRIKA-TOGET. Spørsmålet er hvorfor de langt større landene ønsker å ha Sør-Afrika med i et samarbeid. Her fra Anglo Gold Ashanti's Mponeng gullgruve nær Carltonville i Sør-Afrika. Foto: Bloomberg News



VOKSER. Syv av de ti raskest voksende økonomiene vil være land i Afrika, skriver Kjell Roland.

raskest voksende økonomiene i årene som kommer vil være land i Afrika, hvor en rekke positive utviklingstrekk nå er tydelig:

- Politisk stabilitet og reformer
- Utvikling av fungerende rettsstat
- Forbedret utdanning
- Bekjempelse av korrupsjon
- Utfordringene i landene er også mange av de samme vi

For mange norske investorer overvurderte risikoen, gikk Kina-toget og de store mulighetene fra oss. Nå har Afrika-toget kommet i gang

motte, og fortsatt møter, i Asia. Men det har absolutt vært mulig å gjøre gode investeringer i øst. Fordi mange norske investorer overvurderte risikoen, gikk Kina-toget og de store mulighetene fra oss.

Nå har Afrika-toget kommet i gang. BRIC-landene, som nettopp har vist evne til å ta riktige valg og vokse økonomisk, har allerede begynt sin afrikanske reise. Det er i BRIC og Afrika at den store veksten vil komme. De har naturressurser, er store markeder og opplever en enorm utvikling i kjøpekraft. Norfund opplever blant norske investorer stor skepsis til særlig de afrikanske markedene, selv om vi kan vise til 11 prosent årlig avkastning på våre investeringer. Vi har

også bevist at det er mulig å sette opp velfungerende egenkapitalfond i markeder hvor det ikke finnes velfungerende børser, og slik få tilgang til de virkelige nyskapende bedriftene. Vi håper at også andre norske investorer vil ta inn over seg signalene om hvor fremtidig vekst vil komme og tilpasse seg den nye maktabalansen i verdensøkonomien.

Kjell Roland er direktør i Norfund (Statens Investeringsfond for Næringsvirksomhet i Utviklingsland), et investeringselskap som skal utvikle og etablere lønnsomme og bærekraftige bedrifter i fattige land. Heidi Berg er siviløkonom og jobber i strategi og analyseavdelingen i Norfund

FLERE INNLEGG
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Store utfordringer i vente for Japan
Ida Wolden Bach

Europas lille grønne batteri
Jostein Knygesdal og Magnus Dehlin

Engenregi eller konkurranseutsetting?
Trine Skaga og Borge Benum

Tusen takk, næringsminister
Hans-Axel Jahren

Debattinnlegg honoreres ikke. Debattansvarlig: Vidar Ivarsen, tlf. 22 00 10 59 - 932 56 059 debatt@dn.no



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FAST FACTS

United Nations
Development Programme



UNDP and Energy Access for the Poor

"Expanding access to affordable, clean energy is critical for realizing the MDGs and enabling sustainable development across the globe."
– Secretary-General Ban Ki-moon

Some 1.4 billion people have no access to electricity and a billion more have access only to unreliable electricity networks. About 3 billion people rely on solid fuels (traditional biomass and coal) to meet their basic needs. Access to modern energy services for cooking and heating, lighting and communications, and mechanical power for productive uses is a vast area of unmet need.

Every year, 2 million people – mostly women and children – die as a result of indoor air pollution from household use of solid fuels, burning dung, wood, crop waste and coal in unventilated kitchens. Furthermore, collecting fuel, pounding grain and hauling water is drudgery that denies poor women and children time for education or paid work.

The energy access situation is particularly acute in the least developed countries and sub-Saharan Africa. The benefits of access are transformational: lights on at schools, functioning health clinics, pumps for water and sanitation, cleaner indoor air, faster food processing and more income-generating opportunities, among others.

Energy access is a development priority

Expanding access to modern energy services for the poor is essential for achieving the Millennium Development Goals:

- Reducing poverty and creating jobs by making possible income-generating and entrepreneurial opportunities (MDG 1);
- Empowering women by liberating women and girls from time-consuming tasks, freeing time for education and economic activity (MDGs 2 and 3);
- Improving health conditions by decreasing women and children's drudgery, and eliminating 'kitchen smoke' (MDGs 4, 5 and 6); and
- Promoting clean energy solutions that contribute to low-carbon development (MDG 7).

MATTERS OF FACT

- The overall portfolio of UNDP energy-related projects has more than doubled in a decade to some \$2.5 billion, including over 1,500 off-grid energy projects and programmes for the period 2001-2007.
- Annually, 1 million people benefit from UNDP support on energy access. Over 7 million people in 100 developing countries from energy access efforts for the period 2001-2007.
- Investment in energy access corresponds to demand, with most funds directed to Africa (44 percent) and Asia (25 percent).

A new global goal to ensure universal access to modern energy services by 2030 is advocated by the United Nations Secretary-General's Advisory Group on Energy and Climate Change (AGECC). To accelerate achievement of this goal, UNDP is working in collaboration with its partners to increase access to clean, reliable and affordable energy services for poor men and women who are often unreached by conventional ways of delivering energy. Universal access to modern energy services can be achieved by 2030. There are no fundamental technical barriers.

To meet the target of achieving universal access to modern energy services by 2030, additional investment of \$756 billion is required, or \$36 billion per year. This is less than 3 percent of the projected global energy investment. The resulting increase in CO₂ emissions of 0.8 percent would be modest.



Photo credit: UNDP Burkina Faso

Women in Burkina Faso operate a multifunctional platform (MFP). Women's annual incomes increased by \$45 and they saved two to four hours per day on domestic chores such as fetching water, grinding and milling after the introduction of MFPs in several West African countries, with UNDP support. Literacy rates also increased.

How UNDP is contributing

To meet the energy access challenges of the poor, UNDP supports developing countries in enhancing their capacity in three areas:

- *Strengthening national policy and institutional frameworks*, by integrating energy access within national development strategies, poverty reduction strategies, and low carbon development plans;
- *Mobilizing and expanding financing options*, including through micro-finance, public-private partnerships, and carbon finance;
- *Developing effective approaches for scaling up energy service delivery at the local level*, by strengthening institutional capacity to deliver modern energy services.

UNDP aims to expand energy access for the poor by creating enabling environments and market conditions for diverse solutions such as off-grid options. Such options reach the energy poor beyond the grid while also promoting energy efficiency and renewable energy technologies to mitigate climate change. Examples include micro hydro power, improved cooking stoves, small engines for agro-processing machinery, liquefied petroleum gas (LP gas), and solar photovoltaic (PV) and biogas systems. Efforts include energy access components of climate change mitigation projects.

Programme funding includes UNDP regular resources, the Global Environmental Facility (GEF), GEF Small Grants Programme, governments, and private sector and civil society partners.

In West Africa, a regional policy with ambitious targets was developed by member countries of ECOWAS, the Economic Community of West African States, in collaboration with UNDP. The policy is



Photo credit: AEPC/Energy Sector Assistance Programme (ESAP)

In Nepal, a micro hydro power programme supplied electricity to 250,000 people in remote rural communities. The Nepal Rural Energy Development Programme, supported by UNDP, develops capacities of national and local governments and communities to manage energy systems.

mobilizing action to expand access to modern energy services to 36 million more households by 2015.

More than 1,600 multifunctional platforms have been installed in Burkina Faso, Ghana, Guinea, Mali, Senegal and Uganda, benefiting some 2.4 million people with access to mechanical power for agro-processing from simple diesel or biodiesel engines.

In Pakistan, 55 poor villages near a forest reserve gained fuel-efficient smokeless stoves with UNDP support, reducing tree-cutting and improving indoor air quality.

Local institutions serving 24 villages near Bangalore, India, are using biogas technology to produce safe and clean cooking gas, generate electricity and pump water for irrigation with UNDP support in a pilot project designed to be replicated.

In Tanzania and in the Dominican Republic, UNDP GEF support for community-led initiatives promoting solar PV technology has helped to shape policy and financing for rural electrification.

For more information visit:

www.undp.org/energyandenvironment

United Nations Development Programme

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