

MASTER'S THESIS, COPENHAGEN BUSINESS SCHOOL

# Internationalization of SMEs

Towards a model of internationalization capacity

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## Abstract

This thesis identifies a research gap in the literature on small and medium-sized enterprise (SME) internationalization, which currently lacks an integrated approach. Within this research field, there are multiple strands of literature that focus on drivers of the internationalization process of SMEs. In the literature review, a shared assumption related to organizational learning and capabilities emerge, concepts that are covered by the concept of absorptive capacity. Using absorptive capacity as the central element, this thesis constructs a model that includes prior knowledge, absorptive capacity, networks, and entrepreneurship, as they are identified as the most important organizational capabilities in the internationalization process of SMEs. The model depicts an SME's internationalization capacity, which is the aggregate of prior knowledge, networks, and entrepreneurship to absorptive capacity.

To further develop the model, this thesis conducts a multiple-case study of a sample of 14 Danish SMEs to learn about their internationalization process. Their accounts are interpreted and analyzed through propositions based on the model of internationalization capacity. The analysis shows that there are mutual dependencies between the organizational capabilities, and that the internationalization processes of the SMEs are dynamic processes, where focusing on the contribution of components in isolation becomes less valuable.

The descriptive model is found to not sufficiently reflect the dynamics of mutual dependencies between the organizational capabilities, and is revised to better reflect these dynamics. It is adapted to be an analytical framework, and the key analytical dimensions identified in the analysis are added. Instead of placing absorptive capacity as the central element of the model, it becomes a model component on the same level as networks and entrepreneurship, while prior knowledge is removed. The analytical framework depicts the mutually reinforcing effects of the model components, and can be used by both researchers and practitioners as a vantage point for analysis of internationalizing SMEs.

<b>ABSTRACT .....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>3</b>
<b>LITERATURE REVIEW.....</b>	<b>6</b>
ABSORPTIVE CAPACITY.....	6
NETWORK THEORY .....	11
ENTREPRENEURSHIP.....	15
MODEL CONSTRUCTION .....	20
PROPOSITIONS.....	23
<b>METHODOLOGY .....</b>	<b>25</b>
CHOICE OF SAMPLE.....	26
DATA COLLECTION .....	30
<b>ANALYSIS .....</b>	<b>32</b>
PROPOSITION 1: SMEs WITH LIMITED PRIOR INTERNATIONALIZATION EXPERIENCE INVEST IN ORGANIZATIONAL CAPABILITIES TO INCREASE INTERNATIONALIZATION CAPACITY. ....	32
PROPOSITION 2: PRIOR EXPERIENCE WITH INTERNATIONALIZATION INFLUENCES CURRENT AND FUTURE INTERNATIONALIZATION PROCESSES. ....	37
PROPOSITION 3: SMEs WILL USE THEIR NETWORKS TO IMPROVE THEIR CAPABILITY TO ACQUIRE RELEVANT INTERNATIONALIZATION KNOWLEDGE. ....	40
PROPOSITION 4: SMEs OBTAIN INTERNATIONALIZATION KNOWLEDGE FROM ITS RELEVANT NETWORK TIES TO ESTABLISH THEMSELVES ON FOREIGN MARKETS.....	44
PROPOSITION 5: ENTREPRENEURSHIP STRENGTHENS THE SME'S ABILITY TO TRANSFORM AND EXPLOIT INTERNATIONALIZATION KNOWLEDGE INTO ACTIONABLE OPPORTUNITIES. ....	48
PROPOSITION 6: AN SME THAT PERFORMS ENTREPRENEURIAL ACTIVITIES TOWARDS INTERNATIONAL MARKETS BUILDS CAPACITY FOR FURTHER INTERNATIONALIZATION. ....	52
PROPOSITION 7: A UNIFIED MODEL CAN DESCRIBE HOW PRIOR KNOWLEDGE, NETWORKS, AND ENTREPRENEURSHIP INDIVIDUALLY ADD TO ABSORPTIVE CAPACITY TO FORM INTERNATIONALIZATION CAPACITY OF SMEs.....	56
<b>DISCUSSION .....</b>	<b>63</b>
MANAGERIAL IMPLICATIONS .....	66
FURTHER RESEARCH .....	68
<b>CONCLUSION .....</b>	<b>69</b>
<b>REFERENCES .....</b>	<b>71</b>
<b>APPENDIX (INTERVIEW SUMMARIES).....</b>	<b>77</b>

## Introduction

In Denmark, small and medium-sized enterprises (SMEs) are the most prominent type of company, constituting 99.3% of all companies and accounting for 54.01% of total revenue for Danish companies. Furthermore, Danish SMEs account for 32.79% of total exports for Danish companies (CESFO Annual Report, 2011). An increasingly central challenge is the internationalization of Danish SMEs, as they are challenged by the increasing, global competition in inter-linked markets, where they can be challenged by foreign companies on the Danish market while being limited by constrained resources to compete internationally (Etemad, 2004). The internationalization challenge for Danish SMEs has motivated the Danish government to launch several initiatives to support the growth of SMEs like the Trade Council's Vitus Programs (Trade Council Online[1], 2011)

Classic internationalization theories, with few exceptions (Johanson and Vahlne, 1997), are based on sequential, or stage, processes of internationalization with increased resource commitment offer little guidance for SMEs, which are challenged by resource constraints and are therefore inhibited when competing with multinational enterprises (Etemad, 2004). Additionally, a number of conditions have changed since the theories were proposed in the mid-1970s; enhanced information flow from foreign markets; lower cost of international travel and communication; more available international managerial experience; and firms becoming better at exploiting unique and valuable resources across national borders (Oviatt and McDougall, 1997). Thus, theorists began to focus on internationalization strategies for SMEs, where the focus moves away from gradual stage processes toward a more sporadic internationalization process (Bell et al., 2003). These theoretical approaches can be listed as;

- a) Network-based approaches, which are based on the ability of smaller firms to establish and maintain strong network ties (Etemad, 2004)
- b) International entrepreneurship approaches, which are based on entrepreneurial behavior by SMEs across national borders (Schulz et al., 2009)
- c) Knowledge-based approaches, which are based on the utilization of an SME's knowledge (Mejri and Umemoto, 2010), and are supported by the development in the concept of absorptive capacity (Liao et al., 2003; Volberda et al., 2010).

The field seems to have moved towards an approach of defining SMEs as “born-globals”, which are technology-oriented and operate internationally from inception (Knight and Cavusgil, 1996), and “international new ventures” (INVs), which base their competitive advantage on resources and sales in multiple countries from inception (Oviatt and McDougall, 1994). However, little attention has been given to SMEs that already have experience with exports and international sales and engage in new internationalization processes, apart from Bell et al. (2003), who define these SMEs as “born-again globals”, and Schulz et al. (2009), who compare born-globals and INVs to traditional SMEs.

Currently, researchers call for a more integrative theoretical approach, which can encompass elements from the different theoretical paths (Bell et al., 2003; Autio, 2005; Schulz et al., 2009; Johanson and Vahlne, 2009). Some researchers have tried to develop an integrated approach, e.g. Johanson and Vahlne (2009), who have integrated opportunity recognition into their network approach and Bell et al. (2003), who have come up with an integrated model to explain internationalization paths for different kinds of SMEs. However, to the authors’ knowledge, there is no empirical study that has explored how an SME’s absorptive capacity interacts with, and shapes, network construction, entrepreneurial behavior, and prior knowledge and experience in the internationalization process.

This research gap leads us to ask the following research question:

- How can different strands of SME internationalization literature be synthesized/integrated in a model of organizational capabilities for internationalization?
  1. What is the relevant literature for examining the internationalization process of SMEs?
  2. How can the ideas presented in that literature be integrated into a model?
  3. Can this model be developed further through an empirical study?

Thus, this thesis conducts an exploratory, qualitative study of Danish SMEs based on a holistic theoretical approach, where it is analyzed how the different theoretical elements influence each other. The goal of the study is to propose valid dimensions, which explain the choice of actions in the SMEs’ internationalization process based on an interaction between

absorptive capacity and networks and entrepreneurial processes such as opportunity recognition.

The starting point of our research was curiosity about how SMEs face the challenge of reaching markets beyond the cultural and institutional familiarity of their home market. We review the existing literature on SME internationalization. Through that review, we build a background of concepts on the topic, and from that we create a framework for the model of internationalization we propose. Based on this approach, we present a set of propositions that guide our subsequent data analysis. The thesis is based on an explorative, qualitative study in order to analyze the influence of theoretical elements, which entails an open interview approach (Blumberg et al., 2008) to discover the underlying reasoning and choices in the SMEs' internationalization process in a real-world setting.

To explore if this model is applicable, we collect qualitative data from a group of Danish SMEs. We sample from a group of businesses that have participated in an export program by the Danish Trade Council. This group is heterogeneous in terms of industry and business models, and share the traits that they are small organizations with more or less experience in international markets and the willingness to attempt to further this engagement.

We interview people directly involved in the internationalization process in their organization, and most of the interviewees maintain full or shared responsibility for its planning and execution. In these semi-structured interviews, we ask respondents to describe the internationalization process of their organization, and then subsequently probe into details along the lines of the theoretical dimensions identified earlier.

The interview data forms the foundation of our analysis. We examine the internationalization process of our case companies based on the propositions developed in conjunction with the model construction. Based on the results of the analysis, we discuss our findings and put them into perspectives of the research field, practical applicability, and further research.

## Literature review

### Absorptive Capacity

The term absorptive capacity originated in the late 1980s, and was firmly established in organizational learning literature after Cohen and Levinthal's 1990 paper "Absorptive Capacity: A new Perspective on Learning and Innovation", in which the authors define absorptive capacity as abilities "... to recognize the value of new information, assimilate it, and apply it to commercial ends" (Cohen and Levinthal, 1990 p. 128). The idea behind this concept is one of organizational learning and the use of prior related knowledge in creating an ability to absorb new, external knowledge. Absorptive capacity is viewed as a cumulative process, both in terms of how prior experience or performance affects subsequent learning, and how the capabilities of individuals, in unison, form the firm's absorptive capacity, where it is expressed as not being "... resident in any single individual but depends on the links across a mosaic of individual capabilities" (Ibid p. 133). Cohen and Levinthal highlight that the firm's absorptive capacity depends on individuals who stand at the interface between either the external environment or the subunits of the firm, and note that individual absorptive capacities are strengthened by a strong network of external relationships, which in turn strengthens the organization's absorptive capacity (Ibid.)

Absorptive capacity is seen as a cumulative, self-reinforcing capability that makes it easier for a firm "... to exploit any critical external knowledge that may become available" (Ibid p. 136). However, there is also a risk of being "locked-out" of subsequent developments in an industry or market; if there is no development of absorptive capacity in an initial period it will restrict the firm's potential to act on opportunities, and will make subsequent investments in absorptive capacity more costly for the firm. Conversely, firms with stronger absorptive capacity will be more proactive in exploiting opportunities, independent on their current performance (Ibid.).

Cohen and Levinthal conclude that absorptive capacity is likely to be a byproduct of routine activity, and that investment in absorptive capacity is needed when a firm undertakes a process of acquiring new knowledge that is unrelated to its usual activities. Nevertheless, absorptive capacity is regarded as being of intangible nature, which makes it difficult to determine the optimal level of absorptive capacity (Cohen and Levinthal, 1990).

Internationalization knowledge is defined as “... knowledge that reflects a firm’s resources and its capabilities for engaging in international business” (Johanson and Vahlne, 2009). General internationalization knowledge, such as experience with foreign market entry, mode-specific, core business, alliance, and acquisition, and other specific types of internationalization knowledge experience, is also important in the internationalization process. Learning and knowledge development in business networks is based on both learning extant knowledge from other actors, but also from interaction, and different types of knowledge used in a network interaction.

Thus, absorptive capacity determines to which degree an SME can access external internationalization knowledge and apply it in the internationalization process. Here, absorptive capacity depends on the individual absorptive capacity of employees, who are responsible for international activities; external networks; and prior internationalization experience. Absorptive capacity is a cumulative, self-reinforcing capability that increasingly enables SMEs to exploit external knowledge and opportunities.

Even though the 1990 paper focused on innovation and R&D spending, absorptive capacity as a term has evolved past this focus to include many different theoretical perspectives. As a revision of absorptive capacity in 2002, Zahra and George base their approach to absorptive capacity on dynamic capabilities, defining absorptive capacity as “... a dynamic capability that influences the nature and sustainability of a firm’s competitive advantage” (Zahra and George, 2002 p. 185). Precisely, Zahra and George define absorptive capacity as “... a set of organizational routines and processes by which firms acquire, assimilate, transform, and exploit knowledge to produce a dynamic organizational capability” (Ibid.).

Absorptive capacity is created by the four organizational capabilities of knowledge acquisition, assimilation, transformation and exploitation building on each other. Hence, absorptive capacity is a dynamic capability that becomes a solid foundation for building other strong organizational capabilities and gaining a competitive advantage. Acquisition as a capability enables the firm to identify and acquire external knowledge that is relevant to its current operations, and involves three attributes that affect absorptive capacity; intensity, speed, and direction. The capability of assimilation consists of routines and processes of analyzing, processing, interpreting, and understanding externally obtained knowledge. Knowledge transformation entails the firm’s routines that enable the firm to

combine existing knowledge with newly acquired and assimilated knowledge, which can mean either adding or deleting knowledge or discovering a new way to interpret existing knowledge differently. Exploitation of knowledge refers to an organizational capability that is created by having routines that refine, extend, and leverage organizational competencies, or create new competencies by integrating acquired and transformed knowledge into the firm's operations. Viewing absorptive capacity as a coherent dynamic capability, acquisition and assimilation capabilities are defined as dimensions of "potential" capacity, while transformation and exploitation capabilities are dimensions of "realized" capacity (Ibid.).

As it enables the firm to acquire and assimilate external knowledge, potential absorptive capacity covers Cohen and Levinthal's (1990) idea of a capability of valuing and acquiring external knowledge, but Zahra and George's (2002) redefinition differs from Cohen and Levinthal's (1990) as they argue that potential absorptive capacity in itself does not guarantee a successful exploitation of the obtained knowledge. Thus, the definition of absorptive capacity is extended by adding realized absorptive capacity, which consists of transformation and exploitation capabilities, and is defined as a firm's capability to integrate absorbed knowledge in the organizational routines. It is important to have the distinction between potential absorptive capacity and realized absorptive capacity as it helps in analyzing how some firms are unable to leverage their potential absorptive capacity to improve performance; the different managerial roles necessary to handle exogenous and endogenous forces that influence potential and realized absorptive capacity; and the varying actions that firms may take in developing core competencies through absorptive capacity. The ratio of realized absorptive capacity to potential absorptive capacity is termed as the efficiency ratio, which suggests that firms have varying abilities to create value from their knowledge base due to variations in their capabilities to transform and exploit knowledge (Zahra and George, 2002).

Based on their extension of Cohen and Levinthal's (1990) definition of absorptive capacity, Zahra and George (2002) list several propositions including:

- A firm's opportunity to develop its potential absorptive capacity is greater if it is exposed to diverse and complimentary external sources of knowledge.
- Potential absorptive capacity is a path-dependent capability.

- Activation triggers, which are events that influence a firm's efforts in seeking external knowledge, affect the direction of knowledge acquisition and experience.
- Social integration mechanisms in firms increase the efficiency factor.
- Firms with strong realized absorptive capacity are more likely to use innovation and product development to achieve a competitive advantage, while firms with strong potential absorptive capacity use flexibility and resource reconfiguration to achieve a competitive advantage.

Potential absorptive capacity covers an SME's ability to acquire and assimilate internationalization knowledge, which is done mainly through network exchange and opportunity recognition, while realized absorptive capacity is expressed by the SME's ability to exploit knowledge in entrepreneurial activities. Furthermore, it is recognized that the SMEs' abilities to leverage potential absorptive capacity to improve the internationalization process vary, depending on individual organizational capabilities.

In their 2010 paper, Volberda et al. review and summarize the literature on absorptive capacity and underline the variety of different perspectives and identify the antecedents of absorptive capacity, which they divide into managerial, intraorganizational, and interorganizational antecedents, and prior related knowledge. Then, the authors identify research gaps and recommend new directions of research. They identify that few studies have measured the components of absorptive capacity separately; that there is a limited research growth in the intraorganizational antecedents of absorptive capacity, including, but not limited to, networks; that more contributions to the study of realized absorptive capacity are needed; that there has been little attention given to neither the process of exploiting knowledge from the environment nor the intangible outcomes of absorptive capacity.

For further research, among others, they recommend more research on the influence of management skills and capabilities on absorptive capacity, including the dominant logic of, and cognitive processes in, the management team; studies into the interorganizational antecedents in order to identify the process of assimilating and exploiting external knowledge, including networks; analyzing knowledge absorption in order to map the process that connects prior related knowledge to absorptive capacity; examining the process dimensions of absorptive capacity to clarify how to manage the dimensions of absorptive

capacity, as well as the interaction between the dimensions, successfully; gaining information about the outcomes of absorptive capacity, and determine if proactivity in exploiting opportunities in the environment is a result of high absorptive capacity (Volberda et al., 2010).

This thesis follows the recommended research agenda of Volberda et al. (2010), as absorptive capacity is used as a central element in a model that defines an SME's internationalization capacity by identifying network exchange and entrepreneurial activities as components in the SMEs' environment that strengthen absorptive capacity. The model is tested in an explorative study that aims to identify process dimensions of absorptive capacity, and the outcome in the internationalization process of SMEs, which adds new knowledge to the theoretical field of absorptive capacity.

In summary, absorptive capacity is a central element in the internationalization process of SMEs, and because absorptive capacity is a cumulative capability, the SME will continuously strengthen its absorptive capacity by achieving a higher degree of internationalization.

Having strong potential absorptive capacity means that the SME will be able acquire relevant internationalization knowledge through network exchange and entrepreneurial activities, and interpret and understand the obtained knowledge, which is the foundation for internationalization of SMEs. Realized absorptive capacity is expressed by the SME's ability to combine newly acquired internationalization knowledge with its existing knowledge stock, which transforms the internationalization knowledge and makes it possible to integrate and exploit the internationalization knowledge in the SME's international capabilities and activities.

Analyzing the links between absorptive capacity and network exchange and entrepreneurial activities in an exploratory study identifies dimensions and outcome of absorptive capacity in the internationalization process of SMEs, which are expressed as components in the descriptive model, which defines the internationalization capacity of the SME.

## Network theory

As a consequence of the evolution of network and entrepreneurship theories in the field of internationalization, Johanson and Vahlne (2009) revised and updated their original stage model of internationalization to include the business network view. This view, in turn, is based on the resource based view, as it views resources as being heterogeneous and leading to value creation, regardless of market conditions, but adds that network exchange facilitates the opportunity to acquire extensive knowledge about relationship partners. Furthermore, according to the business network view, the firm is primarily engaged in exchange activities, and the value of production is derived from exchange activities. Thus, networks both provide an extended knowledge base for the firm and create value for production (Johanson and Vahlne, 2009).

To create strong network ties between two network nodes, there must be mutual trust, emotional investment, reliability, and flexibility, which will then create a durable relationship. However, since strong network ties require investment and maintenance, entrepreneurs and SMEs generally have a limited number (often 5-10) of strong ties, and, thus, are not as important to the internationalization process as weak ties. Weak ties are friendly, professional relationships that require less investment than strong ties, which makes the number of weak ties for entrepreneurs and SMEs more numerous than strong ties, and it is easier to increase their number. Often, weak ties are important sources from which a firm can gather information and know-how, and most important of weak ties are those to brokers in the network, as brokers are network nodes that can be used to establish ties to new network actors, with whom the firm has no ties. Thus, it is important for the internationalization process for entrepreneurs and SMEs to establish weak, cross-border ties, whether direct or indirect through brokers (Oviatt and McDougall, 2005).

The size of the firm's network also affects the internationalization process, as larger networks provide the firm with a greater potential country scope of internationalization, and the firm can more easily increase this scope. Furthermore, a large network can provide more foreign sources of venture revenue for the firm, which means that the firm commits itself more to internationalization (Oviatt and McDougall, 2005).

The final moderating effect of networks is density. Sparse networks, where the firm's network nodes are, generally, not interconnected themselves, are believed to be more

efficient at facilitating access to new information better than dense networks, as dense networks have redundant ties, while sparse networks give more opportunities to learn about e.g. new markets. However, dense networks provide more links and interaction among the network actors, which makes mutual trust important, and dense networks can partially substitute strong ties (Oviatt and McDougall, 2005).

Johanson and Vahlne (2009) view commitment and trust building as an important ingredient in network ties to ensure successful learning and development of knowledge, as it makes people more willing to share information, builds joint expectations, and mitigates risk perceptions in situations of uncertainty. Sometimes, trust can even act as a substitute for knowledge, e.g. when firms entrust a middleman to operate its foreign business activities (Johanson and Vahlne, 2009).

An internationalizing SME will only have few strong network ties, which make weak network ties an important source of internationalization knowledge, and especially network brokers can be used to gather information about networks and markets. Using network ties to gather internationalization knowledge adds to the SME's potential absorptive capacity.

In their study of small software firms, Coviello and Munro (1997) found that network ties can shape and drive a firm's internationalization process. Although they define the first steps of the internationalization process as incremental steps, they determine that the internationalization process begins with management exploring and finding opportunities through their network ties to begin an internationalization process. Coviello and Munro found that the firms' original choice of foreign market and entry mode was determined by their existing network ties, which were generally established through the firms being product developers to larger international firms and experiencing a pull-effect, but as the firms became more and more successful on the foreign markets, they planned to become more autonomous and in control in their network ties with the larger companies (Coviello and Munro, 1997).

According to Johanson and Vahlne (2009), firms that are not well established within a network might suffer from "liability of outsidership" and foreignness, which makes it difficult for the firm to enter and become an insider in the network. The liability of outsidership is based on the disadvantages a firm faces when lacking market-specific

business knowledge, i.e. the firms it is doing business with, and the network ties between firms in the relevant business environment (Johanson and Vahlne, 2009). However, overcoming the liability of outsidership by acting on initial insider opportunities in relevant networks, and commencing a learning process and building trust and commitment, can be a way to start the internationalization process for the firm, as they can use both existing network nodes and brokers to establish themselves in relevant networks (Johanson and Vahlne, 2009)

Even though an SME has a limited number of strong network ties, strong network ties to large, international companies can provide opportunities and pull-effects for the SME in the internationalization process. Additionally, strong network ties can be used in order to overcome the liability of outsidership and expand an SME's network in foreign markets, which again adds to potential absorptive capacity.

Johanson and Vahlne (2009) follow a Kirznerian approach to entrepreneurship, which argues that opportunities exist because markets are never in equilibrium. Recognizing opportunities is a process of discovering the unknown; in order to enable opportunity recognition, entrepreneurs need to be alert and prepared for surprises. According to them, the process of recognizing opportunities is based on ongoing business activities rather than specific opportunity-seeking activities; however, luck also plays a role in recognizing opportunities (Johanson and Vahlne, 2009).

Shane (2000) contends that the stock of prior knowledge in a firm has a stronger impact on discovery than the entrepreneur and his characteristics. Prior knowledge enables individuals to have a better ability to discover opportunities, meaning that firms should focus on internal resources and capabilities in the opportunity recognition process, of which it is assumed to have privileged knowledge (Shane, 2000). Johanson and Vahlne's network view of opportunity development is based on firms having privileged market information about their network ties and their additional business network. Furthermore, opportunity development is expected to be a result of ongoing network activities, which will dynamically add new knowledge to the existing stock of knowledge, where the knowledge of the firms' internal resources and capabilities – and the resources that are accessible through network ties are included – is a vital part of the knowledge stock (Johanson and Vahlne, 2009).

Finally, Johanson and Vahlne state that the opportunity development process is very similar

to the internationalization process, as they compare opportunity recognition and exploitation to learning and commitment within network ties (Johanson and Vahlne, 2009).

Privileged internationalization knowledge accessible through network ties provides valuable information in the opportunity recognition process, and further internationalization activities will increase the amount of internationalization knowledge that the SME can absorb in the opportunity development process. Opportunity development through the network then adds to both potential and realized absorptive capacity.

In summary, SMEs have the potential to acquire vast information from its network, both through its few, strong ties, but even more so from its numerous weak ties, particularly to those of network brokers, which can increase the SMEs potential absorptive capacity by making information and knowledge accessible. Internationalization knowledge, especially, becomes accessible through network exchange with relevant network ties, while opportunity recognition can also be facilitated by network exchanges, where the SME dynamically absorbs privileged knowledge and information.

Existing network ties can also influence the SME's choice of foreign market and entry mode in the internationalization process, as well as be used to overcome the liability of outsidership in relevant networks in foreign markets.

## Entrepreneurship

When a firm is entering a new foreign market, whether it is a small or large organization, it is a venture that entails risk and uncertainty, and according to Johanson and Vahlne (2009) it resembles an entrepreneurial undertaking. It is therefore relevant to study entrepreneurship in an investigation of the internationalization process in SMEs. The academic field of international entrepreneurship is still young, but growing (Johanson and Vahlne 2009) and already a multi-disciplinary field with contribution from economics, marketing, international business, and organizational sciences. These diverse approaches provide different takes on entrepreneurship that make it a rich but opaque field; the scope changes over time to exclude and include subcategories of interest (McDougall and Oviatt, 2000). McDougall and Oviatt (2005) note that international entrepreneurship comprises two larger areas, one being (1) the study of and comparison of entrepreneurial behavior in different countries and cultures, the other (2) being organizational behavior in an entrepreneurial venture that transcends national borders. This thesis follows the second sub-area of international entrepreneurship research.

In their discussion of international entrepreneurship, McDougall and Oviatt (2005) propose a model of the cross-border entrepreneurial process that starts with a business opportunity, and argue that the goal of international entrepreneurship is to "create future goods and services" by crossing national borders. (McDougall and Oviatt 2005, pp. 540). In their explanation they extend their argument to "allow(...) for corporate entrepreneurship (Ibid.), so that international entrepreneurship includes not only the entrepreneurial behavior of international new ventures, but also that of more established organizations, i.e. traditionals and born-again globals as classified by Bell et al. (2003).

Based on Andersen (1993) and Casson (2000), Jones and Coviello (2005) argue that internationalization may be described as a process of innovation, since it entails entry into new foreign markets. Jones and Coviello also refer to Schumpeter (1934) and Shane and Venkataraman (2000) to state that innovation is fundamental to the field of entrepreneurship.

Like Johanson and Vahlne (2009), Jones and Coviello conclude that internationalization is a concept that, in its theoretical form, is similar to entrepreneurship and that the field of internationalization study would benefit from an explicit inclusion of ideas from the

entrepreneurial field. They proceed to conceptualize internationalization as "an entrepreneurial process of behavior." (Jones and Coviello, 2005, pp. 285) They identify the core concepts of entrepreneurship and internationalization and find that, apart from the fundamental idea of innovation, there is a shared component of behavioral process. This is "behavioral process" in a broad sense, not referring to any one specifically, which Jones and Coviello (2005) use as foundation for their integrative model of entrepreneurial internationalization. They explain that this behavioral process is a compound of value creation through a unique combination of resources to recognize and exploit opportunities. This process is dependent on behavior that is innovative, proactive and risk-seeking.

Beyond the basic concepts, there are multiple sub-dimensions to entrepreneurship that influence an organization's business processes.

The role of prior experience in entrepreneurship was investigated by Shane in his 2000 paper. The argument is based on the notion of a "knowledge corridor" (Shane, 2000, pp. 452) which is the result of each individual's unique stock of prior knowledge. Every person aggregates information through the course of a lifetime, and this experience-base influences how new knowledge inputs are processed, which is the reason why some people discover opportunities that others do not. Relevant information is distributed unevenly, and thus valuable knowledge about market characteristics, customer preferences, and technological developments are available to those who seek it or those who come by it by chance. But even if new, important information is widely publicized, prior knowledge will impact how each recipient will perceive this. Through his study, Shane finds that prior knowledge has a significant impact on the entrepreneurs he examined. Opportunity recognition and subsequent development is generally determined by what the entrepreneurs already know and have prior experience with. This leads Shane (2000) to argue that opportunities are more likely recognized in sectors that entrepreneurs are familiar with, rather than sectors that are "hot" with other entrepreneurs or in the public discourse. The knowledge that will eventually lead to discovering a valuable opportunity is aggregated over time, and is thus not particularly flexible in a short-term context, especially when it comes to personal experience. In summary, Shane's (2000) results indicate that firms would benefit from analyzing their internal resources for potential opportunities,

where there is likely found a unique combination of knowledge of the organization's capabilities relative to change in the external environment.

In the internationalization process of SMEs, opportunity recognition is driven by the prior knowledge of the employees, who are responsible for international activities, and aggregate accumulation of knowledge over time is an element that makes some SMEs more capable of discovering opportunities than others, which is defined as prior knowledge adding to absorptive capacity in the model.

Entrepreneurial orientation is a mindset of a person, or an organization, that is expressed through behavior which is both "innovative, proactive and risk seeking" (Jones and Coviello, 2005, pp 284). This behavior leads to new entry into new or established markets, which according to Lumpkin and Dess (1996) is the essential act of entrepreneurship. They proceed to define entrepreneurship as the "processes, practices, and decision-making activities that lead to new entry" (Lumpkin and Dess, 1996, pp. 137) and that this is contingent on entrepreneurial orientation, which in turn consists of dimensions of autonomy, innovativeness, risk-taking, aggression, and proactivity. These dimensions are derived from what Lumpkin and Dess (1996, pp. 139) term "strategy making process". This is a set of organizational processes that precede strategic decisions, including planning, decision making, and strategic management. Within these processes are engrained shared values, organizational culture, and corporate vision. Studying these, then, would produce insights into the entrepreneurial orientation of a firm.

SMEs display entrepreneurial orientation in the internationalization process when the establishment in foreign markets is based on a proactive strategy making process, which can be seen when SMEs establish themselves in foreign markets, where they have limited prior knowledge and networks. This process develops absorptive capacity, as the SME acquires internationalization knowledge that is not directly related to its usual activities.

A key element of entrepreneurship is recognizing opportunities as they arise. According to Shane (2000), this stage is often overlooked in entrepreneurship research, since many researchers adopt economic theories presuming that business opportunities are discovered generally as they emerge. Shane (2000) argues that this notion is challenged in Austrian economics, i.e. by Schumpeter (1934) in that issues such as bounded rationality and market

imperfections lead to different people recognizing different business opportunities arising out of the same developments in the market. The neoclassical economic theory Shane (2000) refers to implies markets in equilibrium, where any opportunity is recognizable by any market actor. It follows that people with a higher tolerance and preference for uncertainty will become entrepreneurs, and exploit these opportunities, becoming employers of people with less preference for uncertainty in the course of their business development. This is opposed by Austrian economic theories where the assumption of market equilibrium is criticized for being insufficient, contending that a theory of markets in equilibrium neglects the progression from an initial state of non-equilibrium, to temporary equilibrium, and to disequilibrium anew. The cycle is a result of opportunity discovery and exploitation by individuals, who gain profit from price misalignments or other market imperfections. Shane (2000) then makes the argument that opportunity recognition depends on individual, idiosyncratic knowledge rather than personality traits, and that the research field would benefit from having more studies based on the assumptions of Austrian economic theories rather than the neoclassical.

Reflecting on the propositions by Shane (2000), Johanson and Vahlne (2009) suggest firms should dedicate attention to analyzing internal resources for discovering new opportunities, where a unique set of skills and knowledge could provide profitable insights. They proceed to argue that opportunity recognition is but one end of a spectrum of antecedents to opportunity development, the other end being opportunity creation. This latter theory contends that opportunities are created and realized by a firm. Considering the different views on opportunity development, Johanson and Vahlne take the position that both discovery and creation plays a role in the opportunity recognition process, but that one is not more important than the other. Additionally, opportunity development is regarded as a process in which there is increasing recognition and exploitation of an opportunity.

Opportunity recognition happens when market imperfections in foreign markets are identified, which provides an opportunity for market entry by the SME, and opportunity recognition is driven by prior knowledge and proactive, risk-seeking behavior by the SME. Opportunity recognition adds to potential absorptive capacity while opportunity exploitation adds to realized absorptive capacity.

In summary, entrepreneurship in the internationalization process for SMEs is comprised of entrepreneurial activities across national borders in order to produce future goods and services. Entrepreneurship covers both the actual entrepreneurial activities of SMEs entering foreign markets by following a proactive strategy making process, as well as the opportunity development processes, where SMEs identify market opportunities and exploit them with innovative, proactive, and risk-seeking behavior to achieve further internationalization.

The concept of entrepreneurship is not based on any single definition that scholars agree on. As outlined above, the term itself is broad enough to not invoke any specific association. We therefore find it appropriate to offer a definition based on the literature we have reviewed and base its use in this thesis on that definition.

Thus, international entrepreneurship is defined as risk-seeking entrepreneurial activities that cross national borders in order to produce future goods and services, which is seen by SMEs establishing themselves in foreign markets, as well opportunity development processes, which include innovative, proactive, and risk-seeking behavior by the SMEs to achieve further internationalization.

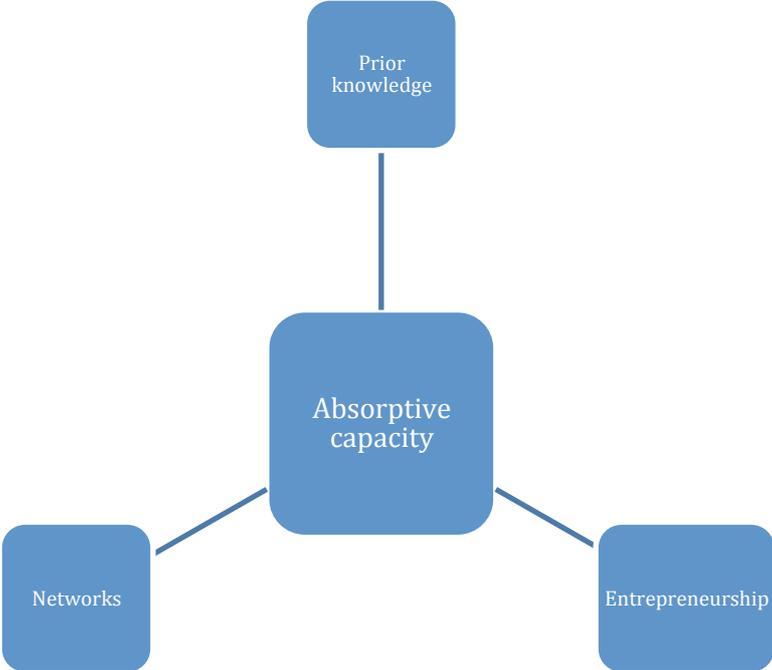
With this in mind, we argue that entrepreneurship contributes to realized absorptive capacity especially, as it increases the SME's ability to exploit obtained internationalization knowledge.

## Model construction

Based on the literature review of the different strands of internationalization theory focusing on SMEs, we create a model that integrates the ideas of prior knowledge, networks, entrepreneurship, and absorptive capacity into a single term; internationalization capacity. As there has been a call for a unifying theory in the theoretical field of SME internationalization theory, this thesis constructs a model based on the mechanisms and dimensions within the individual theoretical approaches. In order to fully cover and integrate the ideas in the theoretical literature, we have created a new term called internationalization capacity, which is defined as the SME's ability to build absorptive capacity by utilizing prior knowledge, networks, and entrepreneurial activities in order to gain internationalization knowledge and further internationalization. We have created a simple model to illustrate the concept, with absorptive capacity being the central catalyst for increasing internationalization capacity by absorbing internationalization knowledge.

The aim of the empirical study, which is conducted based on our methodological approach, is to identify the key dimensions and mechanisms that influence the SME's ability to build absorptive capacity and, by applying proposition, focuses on the impact of the SME's stock of prior knowledge; the privileged internationalization knowledge and opportunities that can be accessed within a network; and how obtained internationalization knowledge is exploited in opportunity development and entrepreneurial activities.

The model is as depicted below:



**Figure 1: Model of internationalization capacity**

Absorptive capacity is at the center of the model, as it is a core capability that increases the SME’s ability to acquire relevant internationalization knowledge, and exploit it in order to achieve further internationalization. We view internationalization knowledge as an important resource for an SME in an internationalization process, and as internationalization knowledge is created and acquired through network exchange and entrepreneurial activities, it supports the model construction with absorptive capacity as the central element. Thus, in this model, an SME’s absorptive capacity consists of the ability to acquire, assimilate, transform, and exploit internationalization knowledge that is obtainable in the network and through performing entrepreneurial activities.

Prior knowledge is a key aspect of absorptive capacity, as it is a cumulative, self-reinforcing capacity. If the SME has previously performed entrepreneurial activities, this prior knowledge and experience enable the SME to better develop opportunities. Additionally, prior knowledge in the form of network knowledge can be regarded as a resource for the SME, which also makes it easier for the SME to recognize market opportunities.

Networks are crucial resources for SMEs in their internationalization processes, as gaining internationalization knowledge through business interactions within the network is a key knowledge acquisition process. A network construction with strong ties to multinational companies and weaker ties to network brokers provides the SME with access to privileged information about the network ties and their additional business network internationally. Furthermore, strong networks can facilitate entrepreneurial activities across national borders by providing market opportunities for an SME.

Entrepreneurship consists of the entrepreneurial activities that an SME performs in order to establish itself on a new market, these activities are risk-seeking and cross national borders, and include such things as establishing an office or joint venture in a foreign country, which develops absorptive capacity that supports further internationalization. Entrepreneurship also includes proactive behavior, e.g. targeted investment in relationship building, that makes the SME more able to recognize opportunities.

In order to further integrate these elements in the model, focus goes back to absorptive capacity as the central capability for internationalization capacity. Prior internationalization knowledge forms the internationalization knowledge base, which defines the extent and relevance of the SME's absorptive capacity, as the SME will be able to more easily absorb knowledge from internationalization activities that it has previous experience with.

Networks provide access to privileged internationalization knowledge, and thus add to potential absorptive capacity, as the SME can use its network ties to acquire and assimilate relevant internationalization knowledge. Entrepreneurial activities show how flexible the SME is when recognizing opportunities, and thus improve realized absorptive capacity, as the SME transforms and exploits internationalization knowledge when performing international entrepreneurial activities.

Internationalization capacity is then defined as the SME's capability to utilize the three components of prior knowledge, networks, and entrepreneurship to build absorptive capacity in internationalization processes. In order to add dimensions and mechanisms to the components in the model, we conduct an explorative, empirical study that tests a list of constructed propositions. These propositions emerge from the process of building the model and the internationalization capacity concept. They explore the relationship between the individual components of the model and absorptive capacity as the central element.

They are based on the shared ideas found in the different strands of literature that have been reviewed, and are explored with the intention to discover these mechanisms in the empirical findings.

## Propositions

1. SMEs with limited prior internationalization experience invest in internationalization capabilities to increase internationalization capacity.
2. Prior experience with internationalization influences current and future internationalization processes.

These propositions are designed to determine how the SMEs compensate for limited prior experience with internationalization by developing internationalization capabilities, and how prior internationalization experience affects the SME's choices in the internationalization process. This will show how the SMEs develop absorptive capacity for learning from internationalization activities, as well as how the SMEs have absorbed internationalization knowledge from previous experience, and how this affects the choices in their current internationalization processes.

3. SMEs will use their networks to improve their capability to acquire relevant internationalization knowledge.
4. SMEs obtain internationalization knowledge from its relevant network ties to establish themselves on foreign markets.

The aim of these propositions is to identify how the SMEs identify and establish relevant network ties, which can provide internationalization knowledge, as well as using relevant network ties to gain further internationalization through opportunity development and entrepreneurial activities. This identifies the internationalization knowledge acquisition processes by SMEs in their networks that add to potential absorptive capacity, and how opportunities are recognized by proactive behavior towards relevant network ties, which adds to realized absorptive capacity.

5. Entrepreneurship strengthens the SME's ability to transform and exploit internationalization knowledge into actionable opportunities.
6. An SME that performs entrepreneurial activities towards international markets builds capacity for further internationalization.

The goal of these propositions is to depict how the SMEs exploit obtained internationalization knowledge through a process that results in the SMEs acting on a

recognized opportunity, while also focusing on the specific entrepreneurial activities that the SMEs gain experience from, and use in further internationalization processes. This shows how the SMEs approach opportunity development and thereby adds to realized absorptive capacity, and what kind of entrepreneurial activities the SMEs perform in order to gain internationalization knowledge and develop absorptive capacity.

7. A unified model can describe how prior knowledge, networks, and entrepreneurship individually add to absorptive capacity to form internationalization capacity of SMEs.

Here, the aim is to identify the specific choices and deliberations that have been made in the internationalization process of the SMEs, and define if the SMEs have core competencies within one of the model components. Then, the SMEs are grouped according to similarities, which can enhance the understanding of the dimensions and mechanisms that can be added to the model.

## Methodology

This section reviews the research methods that are used in this thesis. First, in this introduction we will briefly account for our approach to philosophy of science and how that influences the research. This is followed by an explanation of the development of our theoretical framework, before we document how the sample was selected and the data collected. Finally, we discuss how this data is analyzed in the context of the aforementioned theoretical framework.

This thesis is intended to be part of the international business research field. To us, international business research is embedded in the larger field of social science, a field concerned with dynamics and issues of society at large.

According to Flyvbjerg (2006), the challenge for social scientists is to make research that is both scientifically sound, contributing to the advancement of the field, but that is also useful to society. While this may sound like a rather lofty statement in general, when applied to the field of international business it gains relevance. We think it is important to conduct research that not only contributes to the academic field, but also to the practical knowledge that is valuable to practitioners. In international business research, practitioners (or rather, their work and their challenges) are typically also the subjects being studied. This creates an interesting relation, where the science produced may directly influence the behavior of the group we study, preferably to their gain. It makes it possible to discuss the goal and the results of a research project with the research objects and their peers. That, however, also bears the risk of bias: Is it more important to contribute to the advancement of the research field, or to produce knowledge that creates value for the people that are subjects to the study. We will aim for a result that advances the research field, and relate any potentially valuable insights to practitioners.

The goal of the empirical research is to find if the conceptual model of internationalization capacity has descriptive power. A multiple-case qualitative study allows investigation of how the different concepts of the model are at work in a real-world environment (Shane, 2000; Eisenhardt and Graebner, 2007). Furthermore, the method allows for exploration of the concepts' applicability, and for discovering mechanisms at work that may not have been considered in the research design.

## Choice of sample

We argue that inductive theory building is the preferred approach to initially bridge the research gap of internationalization capacity. It is a method that allows for exploration, necessitating an iterative process of working with existing literature and the data that is gathered. According to Eisenhardt and Graebner (2007), referring to Yin (1994), there are special considerations to be made when sampling data for a case study. In a single case study, it is desirable to look for a case that represents an outlier rather than the mean because the rich narrative and emphasis on context can reveal details that highlight dynamics of the phenomena being studied, details that would be lost in research based on stratified data (Schram and Caterino, 2006). On a similar note, Eisenhardt and Graebner (2007) propose that in a research project based on multiple case studies, sampling should be based on considerations of how the cases can contribute to building or extending the theory. Here, the polarity of cases, within the scope of the research field, can produce a more nuanced understanding of phenomena in research areas still relatively unexplored (Eisenhardt and Graebner, 2007).

For these reasons, we decided to contact businesses from the Danish Vitus export program. This is an export promotion program tailored to the needs of SMEs, and offered by the Danish national Trade Council. Participation costs DKK 75.000, and includes workshops, networking, and individual export counseling. The Trade Council states that a seat in the program is worth 264.00 in consultant hours alone, and that it is thus discounted 65% for Vitus participants. That is not including the potential revenue from a successful export venture, an outcome that, according to the Trade Council, is likely (The Trade Council, 2011:1). However, a number of conditions apply for organizations to be eligible for participation: The organization may not produce an annual revenue in excess of DKK 100.000.000 and must employ between 5 and 100 employees. Furthermore, the organization must have prior experience with export to at least one market beyond the home market. In other words, not every organization that is willing and able to pay the entry fee is accepted. For the Trade Council, this helps hedge the risk of wasting the subsidized export promotion they provide Vitus participants. It is expected that in return for the support, participants generate export revenue that ultimately benefits the national economy through taxes and job creation. Beyond organizational requirements there are no restrictions when it comes to the prospective participants' business model or product

portfolio. This results in a group of SMEs that have a range of commonalities, but also some substantial differences. While all organizations fall within a certain size bracket, and all have some international experience, there are not two that are alike when it comes to products, entailing different marketing strategies. To name just a few examples, there is Dybvad Ståindustri A/S, providing hand-built freezing elements for the shipping industry, Nupo A/S making diet nutrition products for consumers, Colourbox A/S providing online stock images, and the proverbial "everything in between." These will be discussed more in depth at a later point, and so further details are spared for now. The characteristics of this group, sharing some traits relating to organizational size and prior experience, while being diverse in regards to business model and product category, makes it compelling for investigating how the challenge of internationalization is met by SMEs. We can be certain that they have tried, successfully or not, to reach international markets before, and there must also be aspirations for further internationalization, at least at management level of the organization. On the other hand, the organizations are different enough to be consistent with Eisenhardt and Graebner's (2007) suggestion that stronger multiple-case studies are produced where the cases are not so similar that they bias toward mutual confirmation. A limitation in our sample, a potential source of bias, however, is that all organizations do have internationalization experience. We will not study organizations that have had no interaction with customers, partners or distributors abroad. Thus we do not get the perspective of an organization that is still only in the planning phase of internationalization. However, since the organizations that are in our sample find themselves at very different stages of internationalization, some having Vitus as their very first encounter with a foreign market, while others have had years of experience with numerous markets and models international expansion. That diversity is expected to mitigate the potential bias inherent in the sample.

<i>Name</i>	<i>Description</i>	<i>Interview person</i>	<i>Headquarter</i>
Acoplastic A/S	Is specialized in PTFE plastic solutions. Produces machine parts in that material to substitute metal equivalents.	Ejvind N. Nielsen, CEO; Jimmy K. Poulsen, sales director	Helsingør, DK
acubiz A/S	Provides a web-based expense management system for all organization sizes.	Keith Marikh, global sales manager	Birkerød, DK
Brodersen Controls A/S	Provides monitoring and control components for industrial processes, primarily in oil- and chemical industries.	Claus Tranberg, CEO	Vedbæk, DK
cBrain A/S	Maker of software for case management, primarily for ministries and similar government bodies.	Anne Dorthe Hermannsen, marketing and PR manager	Copenhagen, DK
Colourbox	Provides stock images online, and sells both single versions and subscriptions.	Mads Martin Jørgensen, COO	Odense, DK
DGE Group A/S	Consultancy specializing in environmental issues, i.e. oil,, chemical and water pollution.	Hans Jørgen Nielsen, financial manager	Højbjerg, DK
A/S Dybvad Stålintustri	Produces industrial freezing elements, primarily for fishing and food transport.	Mads Sigsgaard, regional export manager	Dybvad, DK
JLI Vision a/s	Provides integrated hardware and software solutions for machine-vision based production inspection.	Jørgen Læssøe, CEO	Søborg, DK
Mensa Heating ApS	Develops and produces outdoor heating elements for consumer and business use.	Stig Bloch Milfeldt, CEO	Århus, DK
Nupo A/S	Produces consumer meal replacement products for weight loss.	Frank Bach Rasmussen, business relation manager	Greve, DK
PowerCare A/S	Agency that arranges expatriation of nordic health care personnel.	Lisbeth Sejer, CEO	Viby J., DK
Ropox A/S	Develops and produces assistive devices for physically disadvantaged, for home and institutional installation.	Peter Bjaldby, business development manager	Næstved, DK
SafeCom a/s	Provides hardware and software solution for corporate printing, for cost reduction.	Hugo Marqvorsen, CEO	Ballerup, DK
Xstream A/S	Provides integrated solutions for media streaming, primarily video, for mass media and telecommunications providers.	Brynhild Vinskei, marketing manager	Copenhagen, DK

**Table 2: Overview of sample cases**

Another characteristic of our sample that calls for explanation emerges when observing it from the perspective of Bell et al.'s (2003) classification of internationalizing SMEs in three distinct groups: The traditional, the born-again global, and the born global. This classification derives from the nature of the organization's core business, and according to Bell et al., (Ibid.) it influences its internationalization strategy. The classification is based on a continuum of knowledge-intensity. The more an organization relies on knowledge for competitive advantage, the closer it will be to the "born global"-end of that continuum and vice-versa, argue Bell et al. (2003). On that continuum, our cases fall in the range of traditional to born-again global. They target specific markets abroad, are rooted in their home market. In contrast, SMEs that are born global transcend national borders in all aspects of their value chain (Rennie, 1993; Oviatt and McDougall, 2005). That type of organization incorporates internationalization as an integral strategy from the outset, and demands a different approach altogether (Bell et al., 2003). Not including a born global in our sample will narrow the applicability of our findings, but we expect that it will enable us to be more focused.

The formal duration of the Vitus program is 9 months, a period in which it is expected that the participant will select a target market abroad, establish relevant connections to potential partners, distributors, or customers, and end with an "export success" (Trade Council Online[1], 2011). Export success entails one order toward the target market, and a final strategy for sustained presence there (Ibid.). At the closing of 2011, a total of 30 SMEs have been enrolled in the Vitus program, in groups of 10 at a time. The latest (third) cohort is currently in progress, and a new one is expected to commence later in 2012. Thus, at the time of writing this thesis, there were 30 organizations in the segment we wanted to survey. We contacted all thirty, initially in an email with a short presentation of our project, and a request to come interview a key decision maker involved in the internationalization process. Fourteen companies responded favorably, and we subsequently set up the individual interviews by calling the interviewees directly.

## Data collection

For data, we rely primarily on interviews with key decision makers directly involved in their organization's internationalization process. These are typically sales directors or CEOs. Based on the literature review, these processes are expected to be of an intermittent and high-level nature, they command a level of complexity that is captured more fully in qualitative data, where these phenomena are expressed in language familiar to the interviewee (Welch et al. 2010). A key aspect of the research in this thesis is exploration and theory building, and that aspect makes qualitative data the more attractive option (Blumberg et al. 2008). With a semi-structured approach to interviewing, it becomes possible to have a more open interchange with the interviewee. That makes it possible to go into directions that were not foreseen, but may be of value to the research, contributing perspectives that were not considered in the research design. This feeds into the concept of multiple-case studies being an iterative process of reviewing data relative to emerging theories and extant literature (Eisenhardt and Grabner, 2011). On the other hand, the same authors point to the importance of maintaining similar conditions across the multiple cases of a set to attain a level of comparability (Ibid.), a point also made in Blumberg et al (2008). With this in mind, we aimed to balance these apparently diverting points by asking interviewees to begin with a broad description of their company and of the internationalization process their organization had experienced. Based on the propositions developed earlier in this section, we produced a manuscript of open questions that were meant as a guideline of points we wanted to get the interviewees' take on, depending on what were included and omitted in the initial stage of the interview. In advance of each interview, we researched the company to learn about their products and any formal international structures, and tried to find any press- or other public statements concerning international engagements. Since none of the companies we surveyed were listed publicly, the information available varied widely from case to case. This included information published by the company itself, i.e. on their own web site, and articles published in news media.

In practice, the majority of interviews were conducted over the telephone. We used the program Skype for calling from a computer, which in turn made it easy to record and process the call later. Three interviews were done on the location of the case company, which turned out to not make a substantial difference to the perceived quality of the data.

Both of us participated in every interview, one taking the lead on the questions, while the other would take notes and keep track of the topics covered. All interviews were conducted in Danish, because this was our interviewee's native language, and the language they conducted their business processes in. As Piekkari and Welch (2006) note, language poses an important challenge in international business research, especially when it comes to qualitative data. That, however, leads to the next challenge of translating the interview data to the language used in the final report. We think it is a better trade-off, though, having us do that work afterwards, rather than forcing our interviewees into it. We both have a high proficiency in English after five years of studying and writing in that language, a competence that cannot be expected from managers that have the Danish market as primary context. There are exceptions to this, but we preferred to maintain a uniform approach here, simply to reduce that source of complexity. We wrote detailed interview summaries and translated the interviews to analyze that data in the context of our propositions.

## Analysis

As previously described, the aim of this thesis is to apply and develop the model that has been created to explain internationalization capacity by conducting an empirical study. The empirical study is based on interviews with Danish SMEs, and the questions asked have been phrased so that the propositions can be applied to the interview data.

The propositions have been formulated based on the SME internationalization literature, and it is the aim of the propositions to structure the analysis in order to include both theoretical and managerial elements. The propositions are broad and explorative in nature, as the goal is to portray the actions and deliberations of the SMEs in the internationalization process, while using the propositions to integrate these actions with theory. Hence, the analysis identifies key dimensions and mechanisms within the components of the model; prior knowledge, networks, and entrepreneurship, as well as the relationship between these components and absorptive capacity.

**Proposition 1: SMEs with limited prior internationalization experience invest in organizational capabilities to increase internationalization capacity.**

This proposition builds on the literature on absorptive capacity, which states that firms are at risk of being “locked-out” of an industry or market and subsequent developments, if there is no development of absorptive capacity in an initial period, which also makes investments in absorptive capacity more expensive for the firm (Cohen and Levinthal, 1990). It is proposed that if an SME has limited prior internationalization experience, there is a need to invest in one or more of the organizational capabilities of networks, entrepreneurship, and absorptive capacity in order to strengthen its internationalization capability. If the SME does not invest in one or more of the organizational capabilities, there is a risk that the SME is locked-out of learning from subsequent internationalization processes.

The first group of SMEs has focused on investing in absorptive capacity, which in an isolated view should increase internationalization capacity, but this investment actually needs to be supported by networks and entrepreneurship as stated in the model.

Acoplatic have shown an explicit investment in absorptive capacity, as the CEO has invested considerable resources in building a "German mentality" in the entire organization

in order to prepare Acoplastic for internationalization. Similarly, Dybvad Ståindustri continuously optimize their products to maintain technological superiority, which can be seen as an investment in absorptive capacity, but the organization in itself is not involved in international activities, apart from the very small sales organization. However, Dybvad Ståindustri are currently establishing themselves in Brazil and are aware of future market opportunities, so they have some investment in entrepreneurship.

The next group of SMEs has hired local sales managers in Denmark or local country managers in foreign markets as an investment in internationalization capacity. Hiring managers can be seen both as an internalization of resources that adds to absorptive capacity by improving the SMEs ability to acquire and exploit information, and as an expansion of the network, if the manager has relevant network ties.

Acubiz hired their current global sales manager because the existing management team recognized the lack of knowledge and experience in that area. The global sales manager is a recent addition to the management team, providing experience from a previous job at a multinational corporation in the software industry. Nupo have also invested considerable resources to build internationalization capacity and support it strategically. Recently, a business relations manager, who is newly graduated from Copenhagen Business School, was hired to handle the internationalization process, and has helped structure the market data gathering and analysis process. Likewise, Mensa Heating specifically hired the sales manager to be able to handle internationalization. The sales manager of Mensa Heating has decades of experience with sales both domestically and internationally, which the founders lacked, and has been able to facilitate the internationalization process.

Brodersen have historically relied on the technological superiority of their product offerings, but due to market changes have recognized the need to be closer to potential customers. In order to do so, Brodersen have hired local country managers that already have an established network in the markets and therefore have access to privileged internationalization knowledge. Furthermore, Brodersen also spend resources on opportunity recognition and establishment in foreign markets. In similar fashion, Xstream have invested in sales offices in Norway and Sweden, and a larger sales and development office in Poland. The international expansion into Poland was especially challenging, and depended largely on having the right person as local manager, since the responsible

managers at Xstream's Danish headquarter did not have the necessary skills nor the time for running the day-to-day operations of that subsidiary. What Xstream have therefore invested in is mostly specific skills, rather than general knowledge that is applicable in different national contexts.

Then, the following SMEs are actively trying to expand their networks in new markets. Here, it is important for the SMEs to have good relationships to network ties, especially reference customers that can be used to gain insidership in the market. However, some of the SMEs currently have not identified a relevant network broker to be used either externally as a network entry point, or to be internalized in the SME by being hired.

The management at cBrain spends around 20% of their time trying to improve their access to the German market. The primary activity in the time allocated to this is identifying and building network connections. This goes directly towards the goal of finding one or more potential lighthouse customers initially, and increasing the customer base subsequently. The indirect effect of this is that cBrain build an understanding of the German market on a whole, and of how their product is perceived in that context. In the same way, Ropox' early internationalization was focused primarily on building a network of distributors. With that in place, and relatively settled after a few years, Ropox decided the next step in that process would be more involvement on the foreign markets they consider most similar to the home market, i.e. Sweden and Germany. That integration is based on the distributor network that has been cultivated there before. Ropox thus leverage the network capabilities they have acquired previously to further expand their international engagement to drive growth. In that way, the organizational capabilities that were acquired during the early stages of Ropox' internationalization remain valuable for their continued international expansion.

Colourbox are trying to establish themselves on the US market, where they have no relevant network. However, Colourbox strictly focus on online sales and due to this do not seem to strategically and actively invest in organizational capabilities that can build internationalization capacity. In contrast, Powercare are using external network brokers in order to gain insidership in markets in the Middle East, but will use a current, Danish employee to run the office, though it is planned to hire a local manager as well. Powercare have stated that there is an intention to use the experience from the current internationalization process in subsequent processes.

The remaining SMEs have not shown any signs of investing in organizational capabilities to build further internationalization capacity.

DGE Group have established joint ventures in Sweden and Lithuania, and are looking to do a similar expansion into Poland. The way it works is that DGE Group identify a local company in their target market, then negotiates an investment that allows DGE Group to take over a majority ownership of the organization. With this mode of operation, DGE Group try to hedge against the risk associated with international expansion, since they can rely on the experience and the network of the local organization they invest in. This suggests that organizational capabilities for internationalization will not be developed different from other cases, because the experience of incorporating a new organization abroad is not internalized.

JLI Vision have had numerous attempts at internationalization, but with very little discernible success. These attempts included export promotion through the Danish Trade Council, the latest being the Vitus program. While these attempts are the result of what JLI Vision consider sizable investments, a potential explanation for their failure is the fact that none of these export promotion projects were actually internalized in the organization. Instead, it remained consultant-based, and time limited. JLI Vision have relied on export promotion the most, and seemingly have the lowest track record of internalizing competencies that relate to internationalization. This would indicate that investing in internationalization projects that internalize competencies rather than leaving them with the external contractor is more valuable.

SafeCom, through their actions, most resemble a born global organization. As a spin-off of an existing international firm, the organization held internationalization experience from inception.

The findings of the study suggest that SMEs first and foremost invest in their organization capabilities by hiring employees, who have previous experience; a structured approach to internationalization; or a relevant network. By hiring such employees, the SMEs recognize the need to invest in additional organizational capability to support the internationalization process, and thereby internalize the needed resource, which can help to increase absorptive capacity, expand networks, and, possibly, make the organization more entrepreneurial.

Also, a significant number of the SMEs focus on extending their network in new markets in their internationalization process. Through network ties to relevant network actors and brokers, SMEs gain access to privileged market information, though it is an external resource.

Furthermore, it emerges that prior knowledge as a individual component of the internationalization capacity model is less relevant than expected. This is because it is difficult to add specific dimensions to the prior knowledge component of the model, as the SMEs invest in organizational capabilities in vastly different ways, which are actually dimensions of the other components in the model.

**Proposition 2: Prior experience with internationalization influences current and future internationalization processes.**

This proposition is based on considerations about the use of prior experience in the internationalization processes of SMEs. It is proposed that prior internationalization experience will influence the SMEs in a path-dependent fashion, as the SMEs are expected to replicate previous internationalization activities in current and future internationalization processes, which affects entry and establishment choices in foreign markets. Hence, prior internationalization knowledge adds to absorptive capacity, and utilizing previous internationalization knowledge in current and future internationalization processes is a display of the SME continuously developing its realized absorptive capacity.

The following SMEs have limited prior internationalization experience, which makes them difficult to assess in this context. However, it is still relevant to note their considerations about prior experience, and whether they aim to use current experience in the future.

Acubiz have only recently begun a targeted campaign towards a market abroad, Germany. The success of the strategy they are using there has yet to materialize, and so it is not possible to find if they will maintain it for other markets. Similarly, with no relevant prior internationalization experience, cBrain are at a loss to identify a model that will work for them, let alone be transferable to other markets.

Dybvad Stålundustri are establishing themselves on their first foreign market in Brazil through a partnership with a global partner. It does not seem like Dybvad Stålundustri are actively focusing on learning from the process in order to use the experience in the future.

In contrast, Nupo have limited prior experience with market establishment; they have previously only had distributors in foreign markets, but their current internationalization process in India is driven by strategic considerations and a long-term focus on internationalization, where the experience from India will be applied when entering new markets. Likewise, Powercare only have limited prior experience, as there was a choice not to establish offices in Norway and Sweden, as there is such close geographical proximity. Currently, Powercare are establishing an office in Dubai in order to gain insidership in networks in the Middle East.

These next SMEs have prior experience with international market presence, but have chosen not to follow the same model as they have tried before. Here, the SMEs utilize their previous experience in their considerations about the establishment model in new markets, which shows that these SMEs have been able to exploit previous internationalization experience in their current organization routines, and have developed absorptive capacity.

Colourbox have previously had an office in Germany, which had to be closed, and will not establish an office in the US, but hire a country manager that acts independently on the market. Also, Colourbox have chosen not to attempt to establish a new office in Germany, but are looking for a country manager to be based in the Danish headquarters. In this case, previous experience has affected Colourbox to limit their degree of establishment on new markets.

On the other hand, Ropox are presently in a state of transition. For years, the company has based international sales on a network of partners. Now, however, the strategy is shifting towards having stronger relationships to select partners in markets that Ropox find strategically important. That strategy has been implemented in Sweden recently, with success, and is now being transferred to Germany to be replicated.

Finally, the remaining SMEs have followed the same establishment models as they have used in prior internationalization processes, which makes it easier for the SMEs to absorb relevant internationalization knowledge about the new markets. However, it also limits the strategic scope of the SMEs, and this can be seen as limiting the possibility for the SMEs to develop absorptive capacity that can support new organizational routines.

Acoplastic focus on establishing export only to the German market, which the CEO and sales manager have prior knowledge about, but might employ a salesman or search for a company with relevant network to acquire, which is the same process as Acoplastic have done on the Swedish market. In the same way, Brodersen are currently establishing an office in Chile, where the same process of hiring a local country manager with relevant experience and network, which has been done in the offices Brodersen established in 2011, will also be used. Also, SafeCom follow a strategy of establishing offices in key markets, where both prior experience with other markets and strategic consideration is utilized. Too, DGE group have used the same model for their expansion into multiple markets abroad,

and state that they are very likely to do so again. Even though Xstream do not have enough international experience to draw a pattern that would indicate a model for replication, the basic concept of hiring a country manager who is native to the target market has proven a satisfactory solution, and would likely be replicated in a future expansion into Canada that the organization is currently exploring.

However, JLI Vision have not had success with their prior attempts at international expansion, and that experience has led them to not make any further attempts in that direction. Instead, the organization will try to attract customers by having a web site that is easily found by potential customers, and by publishing articles in trade magazines regularly. Mensa Heating have a clear strategy to remain a manufacturer strictly with distributors in local markets, and have followed this strategy in all markets so far.

It can be seen from the findings that the SMEs with prior experience are more aware of the strengths of their organizational capabilities in their internationalization capacity, and are able to use previous internationalization knowledge on new markets. Furthermore, it seems that prior knowledge affects the choices of both network exchanges and entrepreneurial activities, which makes the focus on prior knowledge as an individual component in the model less relevant, as prior knowledge is present within all of the components of absorptive capacity, networks, and entrepreneurship.

Interpreting these findings, a consideration is that the SMEs who use the same model of internationalization as has been used before might be in risk of becoming “locked” in a model, which might not be the most optimal, as they are not aware if the chosen model is actually supported by their organizational capabilities. Some of the SMEs, like SafeCom and Ropox, are focused on being flexible and have utilized the same model in order to quickly react on market opportunities, however, while others, e.g. DGE Group and Colourbox, could be locked in a mindset, because they have not critically assessed if their chosen models are optimal for them.

**Proposition 3: SMEs will use their networks to improve their capability to acquire relevant internationalization knowledge.**

This proposition is based on literature that states that networks give SMEs access to privileged information about both markets and market actors. Access to such information is important for internationalizing SMEs as it adds to their existing knowledge stock and makes it easier to assess opportunities when undertaking international entrepreneurial activities.

Because of limited size and resources, it is expected that SMEs use their networks as a primary channel for gathering information. It is proposed that internationalizing SMEs will try to access relevant information about both markets and market actors within their existing networks, and expand their network accordingly if there are no relevant network ties that are able to provide such information. Also, it is proposed that internationalizing SMEs that have prior experience with using their networks as information gathering channels will be more capable of doing so in further internationalization processes than SMEs with no prior experience.

The first group of SMEs has used their networks as the basis for initial or prior internationalization, but it is not expected that they will use their experience within their existing networks in their future internationalization process. Even though these SMEs have prior experience and/or relevant network ties, they are still not actively using their networks in their internationalization process, which limits their internationalization capacity.

Acoplastic have had good relations to two specific Swedish companies historically, but due to changes in ownership and strategy, these relations have been diminished. However, this has meant that Acoplastic have had many Swedish customers and an access to the Swedish market they would not have had without these relations. Currently, Acoplastic have network ties to Danish, global customers, who are moving into the BRIC-countries, which Acoplastic are aware of, but do not use these network ties to access more internationalization knowledge about these markets.

The initial internationalization process for JLI Vision was based on the owner's personal network, where network ties were used to enter the British market. Currently, the owner does not see that there is a great value in networks for further internationalization.

Another group of SMEs simply does not identify their networks as relevant sources of information for their internationalization processes.

Networks have not been central to DGE Group's internationalization, likely because there traditionally has not been much interaction with customers or partners abroad. Even though DGE Group are part of an international network organization of consultancies in their industry, it is not being used actively. Though Acubiz have hired a global sales manager with an international network of contacts, coming from a very similar segment of the software market, this has not been used actively, with the company focusing on generating customer leads through a third party contractor for its international expansion. Finally, Xstream are embedded in a network of demanding customers, and competing and complementing software developers. This has been beneficial from a product point of view, as these networks have provided knowledge about technological developments and forced Xstream to stay on the edge of this. However, there has not been any synergy effect, where the aforementioned use of networks has transitioned to also become relevant for developing opportunities for internationalization.

A third grouping of SMEs is aware that they need to establish a network in their new market, but currently have no relevant network ties in that market. They are trying to expand their networks, which requires investment over time.

cBrain find it challenging to enter the German market because they lack a network there. The market segment they is trying to enter in Germany is difficult to access without network ties, and since this network is both quite closed and shielded, gaining insidership is a substantial challenge. To counter this, cBrain are hoping to leverage their ties at the Danish embassy in Berlin, but so far these connections have also been wary to release information beyond what is required. Colourbox actually have an established network in Germany, where Colourbox have lighthouse customers that are used as references and is an important selling point, both locally and internationally. Currently, Colourbox are entering the US and

need to establish a similar network through a country manager. Ropox do have a limited network in Germany, consisting primarily of personal connections of an employee in the sales department, but they have not been exploitable. Now, though, they are trying to build a strong network of local partners, because they believe this is the most valuable way to gain a sustainable presence on the German market.

The last group of SMEs actively uses their networks to access relevant internationalization knowledge in their internationalization process. Here, the SMEs are aware of maintaining good relationships and using network ties to access information about markets and opportunities.

Brodersen use the CEO's network to hire local country managers. Through his network, the CEO is aware of what is happening on the market, and which market actors are relevant. The CEO uses this information to hire country managers with a "proven record" of vast experience and network, which significantly shortens the go-to market process for Brodersen. Similarly, Dybvad Ståindustri have gained a lot of knowledge about their big, global partners and focus on maintaining a good relationship with them. Dybvad Ståindustri are currently using one of their global partners to establish a partnership and gain access to the partner's network and market information in an establishment process in Brazil. Likewise, SafeCom gain extensive knowledge about markets and networks through the relationship to HSBC and other global clients, who pull SafeCom to new markets and introduced SafeCom to relevant market actors for partnerships.

When Mensa choose a distributor, it is important that the distributor presents itself in a way that is ambitious, but realistic, and that Mensa trust that the distributor can live up to its commitments. Furthermore, Mensa want a partnership and continuous dialogue with the distributors, so they can "be in it together" in order to be more aware of future demand and trends in markets.

Nupo already had contact to an Indian consultant firm, which was an important factor in choosing India as a new market, as they already were a part of Nupo's network, and Nupo trusted the firm and could access information about the Indian market through the consultant firm. The CEO of Powercare thinks that it is beneficial to use the Danish Embassies as network brokers in markets, where Powercare have no direct contacts. When

assessing a market possibility, the CEO uses her network to get in contact with people, who have prior experience with that market.

The empirical evidence indicates that SMEs that are not actively using their networks in their internationalization process, limit their possibilities for increasing internationalization capacity. It was especially surprising to see that two of the SMEs, Acoplastic and JLI Vision, with prior experience and established networks did not utilize this to gain internationalization knowledge. It suggests that these SMEs do not perceive any substantial value in using their networks to access internationalization knowledge, and could build internationalization capacity if they initiate a process to identify relevant network ties and use these in their internationalization process.

The remaining SMEs all use their network ties to access internationalization knowledge in some way or the other. Dybvad Stålundindustri and SafeCom have both used their strong network ties to global companies to obtain privileged internationalization knowledge and establish themselves on foreign markets, while the rest of the SMEs have relied on weak network ties, especially network brokers.

Thus, a dimension of the network component of the model could be that the SME needs to actively recognize the existence of, and use, network ties to gain internationalization knowledge and thereby add to its potential absorptive capacity. Interestingly, there was no tendency when it came to SME's reliance on weak or strong network ties, which is illustrated by the numerous different approaches to networks in the findings. It appears that the business model of the SME influences this, indicating that there is no universally preferable approach to network utilization.

**Proposition 4: SMEs obtain internationalization knowledge from its relevant network ties to establish themselves on foreign markets.**

It is proposed that accessing privileged internationalization knowledge through network ties will build absorptive capacity, as it both adds to the existing knowledge stock and improves potential absorptive capacity by increasing the SME's capability of acquiring internationalization knowledge. If this knowledge is then utilized for further internationalization, it also improves realized absorptive capacity, as the information is transformed and exploited by the SME.

It is further proposed that using network ties to gain insidership in foreign markets provides the SME with more complete internationalization knowledge, which in turn adds to absorptive capacity and enables further opportunity recognition.

A grouping of the SMEs does not actively use their network ties in their internationalization process. Even though some of the SMEs have relevant network ties, there is no focus on utilizing these ties, which limits the SMEs in building internationalization capacity.

Even though Acoplastic have good relationships to global, Danish companies, and Acoplastic are aware that these companies are currently entering some of the BRIC countries, Acoplastic do not actively pursue information or opportunity seeking behavior towards these companies. Acubiz hired a global sales manager with a substantial network from a prior employment. However, their current strategy for expansion into Germany does not make use of it. Instead, the strategy hinges on the prior experience of that individual. DGE group do not attribute particular value to their networks. It has not had a deciding, or even visible role in their internationalization process, which has relied mostly on their entrepreneurial capabilities. In a similar fashion, JLI Vision exploited the founder's personal network for early international projects, but have not found value in networking since then. Therefore, the organization doesn't make efforts in that area.

Finally, Mensa Heating have chosen a role of being manufacturers and exclusively uses distributors on foreign markets. These distributors do not act as network brokers and Mensa Heating do not actively focus on accessing market information, as Mensa Heating do not want to establish and involve itself in local markets.

A second grouping of SMEs identifies the potential gains from using network ties, but currently lack these in their network. Identifying the need for it and a willingness to actively expand the network in itself can be seen as an increase of internationalization capacity, as the SMEs become more aware of relevant network ties, and have already recognized the market opportunity.

cBrain recognize that their lack of relevant network is the primary inhibitor for its internationalization success, and stake their success on building that network in their target market, Germany. For Colourbox, using network ties in the internationalization process is complicated due to the nature of Colourbox being strictly online sales, and there are no network ties to brokers in relevant markets currently. However, Colourbox recognize the need to establish network ties to lighthouse customers, which can enable Colourbox to gain local network insidership due to the importance of reference customers for Colourbox. Likewise, Xstream used strong network ties in the early stages of their internationalization process in Scandinavia. For their expansion to east Europe, however, they lack relevant network ties and are now trying to build it.

A third grouping of SMEs actively use network ties in their internationalization process, in varying ways. The SMEs who use their network ties increase internationalization capacity, as they all achieve further internationalization by using network ties to be pulled to new markets; to access internationalization knowledge to better be able to recognize opportunities; and gain insidership in local networks.

Brodersen follow a strategy of identifying network brokers within the existing networks in new markets, and then employ these individuals as local country managers in order to internalize their privileged internationalization knowledge and established networks. Also, this enables Brodersen to gain instant insidership in local networks, as the local country managers are already insiders in the networks. In a similar fashion, Nupo have utilized their existing network tie to an Indian consulting firm in their current internationalization process, as the good relationship with the Indian consulting firm was an important factor in choosing India as a new market. The Indian consulting firm has been used as a network broker to access internationalization knowledge about the Indian market and in order to find candidates for a joint venture or strategic partnership, which has expanded Nupo's network. Likewise, Powercare have a limited network outside of Scandinavia, but have used

Danish Embassies as network brokers, both to obtain internationalization knowledge about the market and network knowledge about potential partners. In Dubai, Powercare have also used the Danish Embassy as a network broker to gain insidership in the local network, as going through the Danish Embassy has made potential customers and partners view Powercare as a serious business partner.

Dybvad Stålinindustri have good relationships to global partners, but experiences no real pull-effect from them. However, they use these global partners to access internationalization knowledge by maintaining good relationships and network exchanges, and gain local insidership through them as brokers by e.g. partnering with a global partner in Brazil to become an insider in the partner's established network.

Too, Ropox based their early internationalization on building a network of distributors. With that increasingly mature, they are now building on it for a deeper involvement on markets in the vicinity of their Danish home market, i.e. Sweden and Germany. Historically, SafeCom have used their strong relationship to HSBC as the basis for their business and further internationalization. HSBC and other global partners have pulled SafeCom to new markets, and the establishment in Asia was caused by both a pull-effect and global partners acting as network brokers by introducing SafeCom to potential, local partners, with one of whom SafeCom now have a partnership, as well as supplying SafeCom with internationalization knowledge about numerous markets and regions.

Surprisingly, many of the SMEs actually do not pursue further internationalization through their network ties. Most of the SMEs do not view their network ties as being relevant in their internationalization process, and appear not to make an effort to expand their networks in order to increase their opportunity development scope. Only cBrain, Colourbox, and Xstream perceive the expansion of their networks as being necessary to establish themselves on foreign markets.

The SMEs that actively use their network ties to establish themselves in foreign markets do so in diverse ways, where both strong network ties and weaker ties to network brokers make it possible for the SMEs to recognize opportunities and enter foreign markets. An interesting finding here is that networks do not only add to absorptive capacity, but it appears that for many of the SMEs, network ties are a necessary prerequisite for the SMEs to undertake

entrepreneurial activities, and that there is also a relationship between networks and entrepreneurship as components within the model, suggesting that these components influence each other through mutual dependencies.

Finally, many SMEs in the sample do not actively use their network ties to gain internationalization knowledge about, and establish themselves on, foreign markets. Therefore a primary dimension of the model should simply be whether or not the SME consciously uses and builds its network in the internationalization process.

**Proposition 5: Entrepreneurship strengthens the SME's ability to transform and exploit internationalization knowledge into actionable opportunities.**

As absorptive capacity is a dynamic, self-reinforcing capability, which organizational routines can strengthen (Zahra and George, 2002), it is proposed that an entrepreneurial orientation makes the SME more proactive towards opportunity recognition, and therefore will have organizational routines that continuously acquire and assimilate relevant internationalization knowledge in order to develop opportunities. Doing so makes the SME become increasingly more capable of exploiting this knowledge through opportunity development and the undertaking of entrepreneurial activities, which adds to realized absorptive capacity.

A group of the SMEs actually seems to have no or limited entrepreneurship. For some, it is a deliberate choice, mainly because organizational focus is elsewhere, while some of the SMEs are lacking despite good intentions; they state that they aim to be flexible and capable of acting on opportunities, but are in fact more responsive than proactive towards opportunities.

The CEO of Acoplastic states that there is a lack of an opportunity recognition approach due to size and resource restrictions. Furthermore, Acoplastic do not acquire information about opportunities through use of their good relationship with Vestas. Thus, Acoplastic have no identifiable entrepreneurial routines. Similarly, Colourbox state that because of their online sales, it is more important to focus on improving and adapting their images to be used in different regions, as there are no real market opportunities as such for their type of product. Colourbox seem to lack entrepreneurial routines despite their ambitious goal of becoming the world's leading image provider. Also, Mensa Heating have chosen to remain strictly as a manufacturer and use independent distributors, which make Mensa Heating very reactive to the needs of the distributors and limits the possibility to have entrepreneurial activities in general, even though they are very entrepreneurially driven.

JLI Vision have undertaken some entrepreneurial activities, reflecting a minimum level of entrepreneurship, but abandoned this approach to entering new markets for lack of results. Not enough market opportunities were identified, a symptom that may be attributable to a low level of organizational routines to support it. Compared to other cases, JLI Vision indicated relatively few entrepreneurial activities, which supports the aforementioned

notion. Even though Powercare are conducting an internationalization process in the Middle East due to the CEO recognizing the market opportunity, it seems that Powercare are more reactive than proactive towards opportunities. The market opportunity in the Middle East was created because employees expressed interest in that particular region, and the CEO accesses information in her network only after an opportunity has presented itself.

A second group of SMEs has newly established routines to support acquisition of internationalization knowledge in their internationalization processes, and it is expected that the establishment of these routines will develop absorptive capacity for these SMEs and enable them to become more aware of and able to act on future opportunities.

The cornerstone of Acubiz' current international expansion into Germany, the first major market abroad they target, is building stronger relationships to partners that should eventually lead to increased presence and sales there. This endeavor has Acubiz searching for relevant local partners, a routine that was implemented recently by the global sales manager who has experience with this approach from an earlier employment. Likewise, cBrain are bent on expanding their business to Germany, and they are spending as much time and money doing this as they think they can. Acknowledging that the outcome of their internationalization venture is still highly uncertain, but going forward with it nonetheless, the organization shows entrepreneurial capability. Being satisfied with the process of expanding to Poland, Xstream are now planning a similar move into Canada. The experience with that entrepreneurial venture has granted Xstream the confidence and knowledge to keep expanding internationally. By hiring a new business relation manager, who performs market analyses and contacts network ties in order to acquire relevant internationalization knowledge, Nupo are establishing routines within the organization that can develop opportunities. Ropox have acted entrepreneurially too, investing in a joint venture in Sweden and lead generation in Germany to gain a foothold in those markets. With that strengthened position, Ropox can be more present in those markets, ready to bid on construction projects as they appear. In other words, the entrepreneurial activities in those markets should ultimately give Ropox the chance to identify and act on more business opportunities.

Another group of SMEs has established organizational routines that enable them to recognize and act on opportunities, and are established in key markets.

Brodersen continuously conduct market analyses and stay aware of opportunities due to regulation, which is leading Brodersen to establish themselves in Chile in order to branch out in South America, and Britain in order to be able to better handle an expected increase in demand. SafeCom have historically been aware of the pull effect from HSBC and other global partners, and have established routines within the organization to make it flexible and responsive in order to be capable of acting on opportunities as soon as possible, and they are changing their strategic focus to realize their potential on the global market. In a similar fashion, the market establishment in Brazil is based on Dybvad Stålinindustri's recognition that there is a market opportunity because of freezers being outdated. Additionally, they have identified that there is a large future potential for their products due to attitude change in the US and regulation Europe requiring more environmentally friendly freezers, which Dybvad Stålinindustri can supply with their innovative products, so the current organizational routines strengthen the capability to meet future demand.

For DGE Group, the entrepreneurial projects they have been involved in initially seemed risky and uncertain. However, after having done successful internationalization projects in the form of permanent joint ventures in Sweden and Lithuania, as well as temporary joint ventures in Ghana and Malaysia, DGE Group are now more comfortable with the relative riskiness of overseas ventures. This motivates them to actively pursue new, similar international projects, acknowledging that they want most of their growth in markets beyond Denmark.

The SMEs that are actively pursuing opportunities have organizational routines that acquire information and exploit them in the internationalization process, and the most experienced SMEs are also the ones that are most actively pursuing new opportunities, which supports the idea of it being a dynamic, self-reinforcing capability, and is aligned with the proposition.

The findings show that SMEs that are willing to invest in establishing organizational routines for opportunity recognition benefit from appointing an employee to initiate these. The SMEs that lack these routines are not aware of the self-reinforcing learning benefits of

establishing such routines in their strategy management. This supports that SMEs could benefit from a proactive approach to opportunity recognition to gain experience and improve their probability to realize potential opportunities. Again, there are indications of the mutual dependencies between networks and entrepreneurship, as opportunities are often created or recognized as a result of network exchange.

Thus, it can be added as a dimension to the model that the SME needs a strategic management process that supports opportunity development in order to develop its realized absorptive capacity.

**Proposition 6: An SME that performs entrepreneurial activities towards international markets builds capacity for further internationalization.**

When an SME performs entrepreneurial activities, the SME gains experience and knowledge, which can be absorbed by the organization and add to the SME's absorptive capacity. It is proposed that an SME that actively performs entrepreneurial activities, and has done so previously, builds absorptive capacity and will become more capable of performing entrepreneurial activities in the future, as the SME becomes more aware of risks and opportunities by learning from previous experience, and therefore increases its internationalization capacity.

The first group of SMEs only performs limited entrepreneurial activities. For some, this is a deliberate choice because the SME has emphasized other capabilities for internationalization. In other cases, the SME has previous experience with being unsuccessful, and therefore chooses to limit its entrepreneurial activities.

Acoplastic have performed limited entrepreneurial activities, as the focus of the CEO has been to reshape the organization. As a result, Acoplastic are targeting the German market for export purposes, but are not expecting to establish a presence there. Placing production facilities in China has been the only entrepreneurial activity performed by Mensa Heating, and they have decided not to get further involved or established in any markets beyond Denmark, but to instead build a network of distributors.

Colourbox have previously had to close down an office in Germany due to organizational issues, and have chosen not to pursue an establishment with an office in the US, but are looking for a country manager, who can expand the network to include lighthouse customers, and handle those relationships. Thus, Colourbox have chosen to limit their entrepreneurial activities. Likewise, JLI Vision have not had sufficient success with their attempts at international expansion. They have therefore abandoned any further actions, focusing on being visible for potential clients that are on the market for a solution of the type JLI Vision offers.

Another group of SMEs perform entrepreneurial activities directed toward strategic network building. While this does not immediately qualify as entrepreneurship, it is still a

proactive, risk-seeking and cross-border activity, as outlined in the definition of entrepreneurship provided earlier.

Acubiz' current campaign for the German market is entrepreneurial in the sense that it is proactive. Not only does the global sales manager spend time finding and negotiating with potential partners there, the company has also hired a contractor to generate sales leads to make the partnership more appealing to prospective distributors. The outcome of this approach is uncertain, however, and thus it is hard to tell how it will impact the organization's internationalization capacity. cBrain are primarily trying to build an international network, at this point with the goal of identifying a company that is willing to be pilot customer in the German market. Therefore, their efforts are not directed towards any entrepreneurial activities, at least not in connection with their internationalization aspirations.

Dybvad Stålinindustri are currently establishing themselves in Brazil through a partnership with an existing global partner, but are not planning further entrepreneurial activities, though there is an awareness of future opportunities in the US and Europe. Because the establishment in Brazil is based on tariff barriers, it is difficult to determine if Dybvad Stålinindustri will draw on this experience in the future. In contrast, despite the lack of experience with entrepreneurial activities in Nupo, the current process of being established in India, likely through a strategic partnership with a local company, it is a strategic goal to use this experience as platform for further internationalization.

A third group of SMEs has limited prior experience, but are currently involved in internationalization processes where they are performing entrepreneurial activities. Hence, these SMEs have the potential to build internationalization capacity, if they absorb the experience from their current processes, but it is difficult to determine if the SMEs will actually realize this potential.

Brodersen have established offices in three new markets in 2011, and is looking to establish in at least two new markets during 2012. Brodersen have entered new markets by hiring local country managers with previous experience, and are looking to follow this model in new markets as well. Similarly, Xstream have opened a subsidiary in Poland, which so far is

regarded as a successful venture. This experience is being carried over to the current planning of a similar expansion to Canada.

In Scandinavia, Powercare have chosen not to establish offices due to close geographical proximity, but are establishing an office in the Middle East, where there are no previous network ties and has used the Danish Embassy in this process. Because the Danish Embassy has been used as an external resource, it limits the possibility of Powercare to absorb the knowledge and experience from the process. DGE Group has found that their entrepreneurial approach to internationalization, driven by serendipity and a tolerance of risk, has rendered results good enough that they will maintain a similar model for future international projects. Also, the positive results mean that DGE Group will try to keep their international growth going.

In another fashion, Ropox have distributors all over the world, but the markets in their home region see most sales and have the most attention of the company's management. In each of these close markets, Ropox' strategy has been adapted to meet the institutional variations there. Ropox continue to tweak and develop the strategy for each of these key markets, and at the same time they work to get into a new segment in these markets, evolving around long-term projects.

As the only SME, SafeCom have extensive experience with entrepreneurial activities, which has been driven by equal parts of serendipitous opportunity recognition and pull-effect from global partners, and conduct further internationalization processes based on experience and knowledge about the global market.

The SMEs that engage in entrepreneurial activities, which they perceive as successful, are more inclined to focus on future opportunities and are likely to use their experience from the current internationalization processes. It is interesting to point out that this seems to only be the case when it is a positive, self-reinforcing process. In contrast, Colourbox and JLI Vision have attempted entrepreneurial ventures that they deemed unsuccessful, leading them to be more reluctant to invest in further internationalization activities, which contributes to locking them into a passive mode that can inhibit their international growth. The tendency is that the SMEs in the sample have a path dependent internationalization process. In line with absorptive capacity theory, it then becomes important to absorb all

experience and transform it into knowledge that can be exploited in the future, instead of merely assimilating it.

Again, there are further indications of the mutual dependency between networks and entrepreneurship. Acubiz and cBrain both invest in network building as a prerequisite to enter the market while Dybvad Ståindustri and Nupo base their establishments on foreign markets on existing network ties. In both instances, networks are being used strategically through an entrepreneurial orientation.

The dimension that can be added to the model is whether or not SMEs are able to transform and exploit internationalization knowledge gained through entrepreneurial activities. Finally, there is a high degree of variation in how the SMEs perform entrepreneurial activities, and there is mutual dependency between the components in the model.

Proposition 7: A unified model can describe how prior knowledge, networks, and entrepreneurship individually add to absorptive capacity to form internationalization capacity of SMEs.

The internationalization strategy of SMEs is created by of the interaction of the SME's absorptive capacity, network structure, and entrepreneurial capabilities. The proposition builds on the assumption that the internationalization process of SMEs is based on opportunity recognition and development, and is sporadic and serendipitous.

Therefore, it is relevant to explore the individual internationalization processes of the SMEs in the sample more cohesively to identify similarities in the choices of internationalization strategy.

Acoplatic do not have significantly strong networks or entrepreneurship, but have invested in absorptive capacity by establishing a "German mentality" in the organization that the CEO believes will increase and strengthen their visibility. They have a strong position on their niche market, which makes visibility towards international customers an important strategic element. If successful, this can open up for new network relationships, as it makes global companies more inclined to become customers, and enable them to perform entrepreneurial activities, as the organization can quickly adapt to new opportunities. Overall, Acoplatic have attempted to optimize their internal processes to gear the organization to future internationalization.

Acubiz had their early internationalization experience primarily selling to customers in neighboring Scandinavian countries. However, looking to accelerate growth beyond this region, Acubiz hired a global sales manager who could take charge, contributing experience and network connections from a prior employment at a multinational corporation, selling a very similar product. Acubiz are now expanding into Germany, investing in generating leads to potential customers and using these to be more attractive when approaching local German distributors for distribution contracts. Their internationalization knowledge thus derives primarily from the prior experience of the global sales manager. The strategy Acubiz now employs is to rely on the network of partners and distributors they are building in their target market. However, the approach to building this network can be described as entrepreneurial, since the organization is being proactive and risk-seeking. Therefore,

Acubiz' entrepreneurial capabilities factor in to their network-based internationalization strategy.

Brodersen have chosen to internalize networks by establishing offices and employing local country managers, found within the CEO's network, with a proven record of experience and networks, which alleviates the process for Brodersen of gaining insidership in networks in markets like Korea, where the business networks are very closed and make it difficult for foreign companies to break into the networks. Furthermore, they have also established all of their foreign offices in the US, Korea, and Australia during the last year, and are looking to establish an office in Britain in the coming year, because they expect that there will be an increase in demand that necessitates a country manager for Britain, and an office in Chile in order to enter the South American market. This shows that Brodersen also have an entrepreneurial orientation; recognizing opportunities and therefore performing entrepreneurial activities.

At cBrain, several managers have internationalization experience from a prior venture. However, according to cBrain, there is a limit to how helpful that is, as that venture was in an entirely different industry, with a very different customer segment. It amounts to some familiarity with working with partners and customers abroad, but cBrain do not consider it particularly valuable. The lack of an industry-related network is the primary hindrance to cBrain's international expansion, and building one is currently the primary focus of the management team. They are, however, willing to invest in it, travelling abroad any time a potential client or partner is willing to meet and discuss the possibilities of doing business. Participating in the Vitus program is part the attempt to build a network, using the well-regarded name and brand of the Danish embassy as a door opener to potential clients.

Colourbox have limited their entrepreneurial activities due to an unsuccessful office establishment in Germany. Currently, they are looking to employ an independent country manager in the US to establish network relationships to lighthouse customers, because they consider it very valuable to have one of these customers, expecting that they will significantly help generate opportunities to sell to other big customers. Colourbox already have relationships to German lighthouse customers, but currently have no country manager to maintain the relationships, so even though Colourbox are mostly focused on their network, they currently do not have a strong network.

DGE Group's international expansion is largely a result of serendipity. They have subsidiaries in Sweden and Lithuania, both in the form of joint ventures with local partners, with a majority share belonging to DGE Group. The incorporation in both of these countries were coincidental rather than intentional, but provide what they believe is an appropriate strategic fit. The Swedish joint venture was established after the CEO of DGE Group met the CEO of the Swedish consultancy by chance. The Lithuanian subsidiary was incorporated on a recommendation by the Nordic Investment Bank (NIB), who considered it a market with potential. At the time of the interview, DGE Group are targeting Poland as the next country to expand into. For that, they want to largely replicate the approach that has worked in Sweden and Lithuania. Therefore, they are now actively searching for a Polish company that is willing and suitable for a joint venture. The Lithuanian subsidiary is charged with this, because the management at DGE believes the gap of culture and language from there to Poland is less significant than it would be from Denmark. The serendipity that lead to the initial internationalization of DGE Group, and the resources now being invested in continuing that development indicate that the organization is entrepreneurially oriented and flexible enough to pursue opportunities that arise, and to invest resources in these ventures, even if the outcome is uncertain. However, the challenge of continuing the international expansion to Poland seems to be a result of a lacking industry network that would make it faster to find a suitable partner and initiate the cooperation.

Dybvad Stålinindustri are the global leaders on their niche markets, and defend this position both by maintaining good relationships network ties and innovating to keep a technological superiority. They have strong network relationships with global partners, which are used to perform entrepreneurial activities and gather internationalization knowledge. This is evident in their market entry in Brazil, where there is a large market for their products and a local partnership with a global partner is being established. Dybvad Stålinindustri are also aware of the future opportunities in the changing regulation in Europe that necessitates an update of many freezers, and an attitude change towards more environmentally friendly freezers in the US.

JLI Vision have a history of trading with international customers, almost since the company's inception. However, it has been difficult to turn this experience into a consistent

expansion beyond the home market. JLI Vision acknowledge that the organization does not have, and is not trying to build, a network that would help gain foothold in a market abroad. Instead, there have been entrepreneurial activities in the form of focused sales campaigns and export promotion assistance through the Danish Trade Council. None of these have offset their cost, however, and have thus not been deemed successful. JLI Vision now primarily acquire new international customers with a more reactive approach. Through mentions in technical journals, publishing articles on their latest developments, and having a web site that is easily found by people looking for the type of product JLI Vision sell, they try to build awareness of its solutions. While there have been periods of time where JLI Vision were actively building internationalization capacity by networking and pursuing entrepreneurial opportunities, the primary mode at this point is waiting for new customers to make contact.

Mensa Heating have chosen to maintain their role as manufacturer of their products only, and, even though they have production in China, are therefore limited in their possibilities of performing entrepreneurial activities. They have focused on establishing strong network relationships to their distributors, who act very independently on their local markets. This makes network relationships very important for Mensa Heating, as they rely on them to access internationalization knowledge.

Nupo currently have limited prior internationalization experience and network. However, Nupo are willing to invest in building internationalization capacity, which has been done by employing a newly graduated cand.merc as Business Relation Manager, who has used market analyses and a network tie to an Indian consulting firm in order to structure a market entry in the Indian market. Nupo have recently become more strategically focused on internationalization, and are currently building capacity and committing the strategic goals of the entire organization to internationalization.

Powercare have some limited internationalization experience and network from Scandinavia, but they have a willingness to undertake international entrepreneurial activities and strengthen their international network. This is evident in their current process of establishing an office in Abu Dhabi, where Powercare have used the Danish Embassy as their primary network broker to be introduced to local potential partners and achieve insidership in the network.

Ropox have a global network of distributors that has been the foundation for their initial international expansion. For the past year, they have been in the process of getting more deeply involved in markets abroad by targeting a more long term project-oriented market where the turnaround is typically 2-3 years, requiring a larger commitment. This strategy was first adopted in Sweden, where Ropox decided to extend collaboration with one of the existing distributors. This model was preferred because Ropox did not want to alienate any of their local partners by incorporating themselves, posing a potential threat to the traditional distribution model. Also, collaborating with a local business had the additional benefit of granting access to that organization's local network. In the end, Ropox set up a joint venture in Sweden with the Swedish distributor. Now, Ropox are looking to expand to that same market segment in Germany, but due to institutional considerations they are not interested in copying the Swedish model. Instead, they will try and deepen their relationship with select distributors, and approach long-term projects on an individual basis. Ropox have been able to leverage their network connections and their entrepreneurial capabilities to expand their business to new international markets in a manner that fits their strategic intent. In this way, they build capacity for further internationalization.

SafeCom have strong network relationships to their global customers like HSBC, which has created a pull-effect into new markets, where SafeCom have been introduced to local network ties that have been used to establish local partnerships. As SafeCom itself conducts market analyses and have focused on making the organization very flexible, SafeCom has invested in absorptive capacity and entrepreneurship in order to be able to quickly adapt to new opportunities and markets.

Xstream's early international success hinged on a relatively small group of influential media conglomerates in the Scandinavian region. When the first customer had been acquired, and was satisfied, more followed soon after. That helped Xstream gain a comfortable position in what it considers its home region. More recently, however, Xstream have initiated an expansion into Poland, to establish a presence in that market and to build a beachhead into the east European region at large. From the outset, Xstream emphasized the importance of finding a local country manager that could bridge what Xstream find is a more significant cultural and linguistic gap. Doing this, Xstream also hoped to mitigate the risk of failure of this expansion, which has been described as a costly undertaking both in terms of time and

money. So far, they consider the project successful. For Xstream, the combination of network orientation and entrepreneurial activities has paved the way for an internationalization process that fits their strategy, and that can be sustainable for further internationalization in the future. However, these phenomena have been at work rather separately, with the network orientation in the home region and the entrepreneurial actions in the new region of east Europe, where there has not been the same network opportunities from the outset.

The internationalization processes of the SMEs show that the internationalization paths and choices are varied to a large degree. This indicates that the internationalization processes of the SMEs are based on their unique combination of capabilities in absorptive capacity, networks, and entrepreneurship, which together form their internationalization capacity. However, general patterns and groupings of SMEs with a similar approach emerge.

Many of the SMEs mostly depend on one of the components in the model in their internationalization processes and can be grouped accordingly. However, there is still a high degree of variation between the specific processes of the SMEs that have been grouped together, and therefore the commonalities are identified on an overall abstraction level. Furthermore, the groupings reflect the primary focus of the SMEs, and should not imply that the SMEs do not have some strength in the other components in the model.

The first group of SMEs – Acubiz, cBrain, Colourbox, Mensa Heating, and Powercare – acknowledges that networks play a big part in the internationalization process. Here, the SMEs acknowledge the fact that they need insidership in markets, and attempt to build their networks accordingly, either by using existing network ties as brokers to access their network, or by employing the network brokers in order to internalize their network as a resource within the SME.

A second group of SMEs – Acoplastic, Nupo, and Xstream – focuses on making the organization flexible and capable of meeting demand in international markets as an important step to undertake new internationalization processes. The SMEs build absorptive capacity in order to increase its capability of acquiring and exploiting knowledge, where potential absorptive capacity is improved by the SME's network structure and realized absorptive capacity is improved by the organization's capability to act on opportunities.

Another group of SMEs has been driven by serendipity – JLI Vision and DGE Group. For both SMEs, initial internationalization was driven by chance or personal network ties, but for JLI Vision this has not evolved into any strategic intent. This results in them taking a more reactive stance in their internationalization processes, while DGE Group is satisfied with the relatively serendipitous approach to opportunity recognition.

The last group of SMEs – Brodersen, Dybvad Stålinindustri, Ropox, and SafeCom – has internationalization strategies that include a more balanced approach, which includes elements from the different strands of international literature. These SMEs have prior experience with internationalization, established networks, and are aware of opportunities in new markets.

As shown in the findings, there are some general tendencies of the SMEs, but a lot of individual differences. Even when the SMEs are mostly driven by one component of the model, there are still many complex factors that distinguish the SMEs, which makes it less relevant to focus on dimensions in isolation, as their individual descriptive power do not capture the full spectrum of mutual dependencies between the components of the model, where they positively reinforce and strengthen each other. This indicates that internationalization capacity is not formed by the individual components adding to absorptive capacity, but instead is dependent on the mutual influence of the components.

## Discussion

As supported in the literature review and empirical findings, prior knowledge, networks, and entrepreneurship are important factors in an SME's internationalization process. The analysis of the empirical findings is structured in a way that identifies the key dimensions in the relationship between absorptive capacity, being the central element, and prior knowledge, networks, and entrepreneurialism. However, based on the empirical findings, it has become evident that the construction of the model, with absorptive capacity being influenced by prior knowledge, networks, and entrepreneurship is not ideal, as depicted in Figure 1.

Through the analysis, we have found that the internationalization process of the SMEs we studied integrate the different components of internationalization capacity, making it more complex and less sensible to try and appreciate them in isolation. A prominent example of this is SafeCom, an organization that has developed an internationalization strategy based on a serendipitous opportunity that was a result of network connections, which was acted on entrepreneurially and became the foundation for further internationalization. It was the combination of network, opportunity recognition and entrepreneurial capability that led to SafeCom's internationalization, not a discernible strength in any single capability. Similarly, Ropox has employed a balanced mix of internationalization capacity, relying on networking and entrepreneurial actions, and a flexible approach to each market they have entered so far. The ultimate goal for Acubiz is to have a network of dedicated partners, which relies on an entrepreneurial process, and makes for a balanced approach, adopting both a short-term and a long-term perspective. Dybvad Stålinindustri has leveraged their years of experience with international customers, and the network that has been built over that time, to discover opportunities that require an entrepreneurial approach. Again, this is a balance of internationalization capabilities unique to that particular organization. Xstream was able to tap into a manageable network in their home region, making the early internationalization mostly network-oriented. Later, when a new foreign market was targeted, the same network approach was no longer viable, necessitating a more entrepreneurial approach. So far, that has not been to Xstream's detriment, with the growth the Polish subsidiary has seen.

Other SMEs we studied tended to rely more heavily on one of the dimensions in the internationalization capacity framework. The skew towards a single dimension commonly reflected a lack of capabilities on one of the other dimensions. cBrain, PowerCare, and Mensa Heating are organizations that rely primarily on networking, albeit at different stages. These organizations do not have a knowledge base of prior experience to guide their current internationalization strategy. Also, their opportunity recognition and entrepreneurial capabilities seem to be determined by their perception of market and industry dynamics, narrowing their choice of market entry. An SME that has primarily been entrepreneurial through the internationalization process is DGE Group, acting on opportunities mostly by serendipitous discovery.

In sum, the internationalization processes of the SMEs we studied are diverse and individual, with commonalities being found only when the complexity of each case is reduced to the more general concepts that were synthesized at the outset of our research. The components of internationalization capacity were found to influence each other, and the strengths of each component varied from SME to SME. Thus, the rich context of each SME is indispensable for comprehending the choices in the internationalization process.

Based on these findings, we believe that the descriptive power when unifying the components in a descriptive model is too limited, as it simplifies complex and numerous variables into a smaller set of descriptive dimensions. We do believe, however, that the rejected descriptive model can be adapted to become an analytical framework with explanatory power instead. Furthermore, we still think the dimensions that have been identified in the analysis have explanatory power and can be incorporated in the analytical framework.

It is not supported by the findings to place absorptive capacity in a central role. There is limited attention given by the SMEs to absorptive capacity, as there was little mention of the internal organizational routines that assimilate and transform the knowledge gained by internationalization, and absorptive capacity is a dynamic capability that changes over time, which influences networks and entrepreneurial capabilities, and, in turn, is influenced by the changes in networks and entrepreneurship over time. Thus, placing absorptive capacity in a central role indicates that it is a separate part of the SME's capabilities that does not interact dynamically with networks and entrepreneurial activities.

Also, prior knowledge was not found to be a stand-alone element of the organizational capabilities of the SMEs, but can be seen more as the collective knowledge stock, which included prior knowledge about network exchanges and entrepreneurial activities, which in itself is an integral part of absorptive capacity. Thus, it has been removed from the model.

As is witnessed by the findings in the analysis, it is more correct to describe internationalization capacity as an organizational capability that is built by a dynamic interaction between absorptive capacity, networks, and entrepreneurship. Hence, the model needs to be revised in order to more accurately depict the dynamic interaction, which changes the purpose of the model from a descriptive model to an analytical framework, as depicted below.

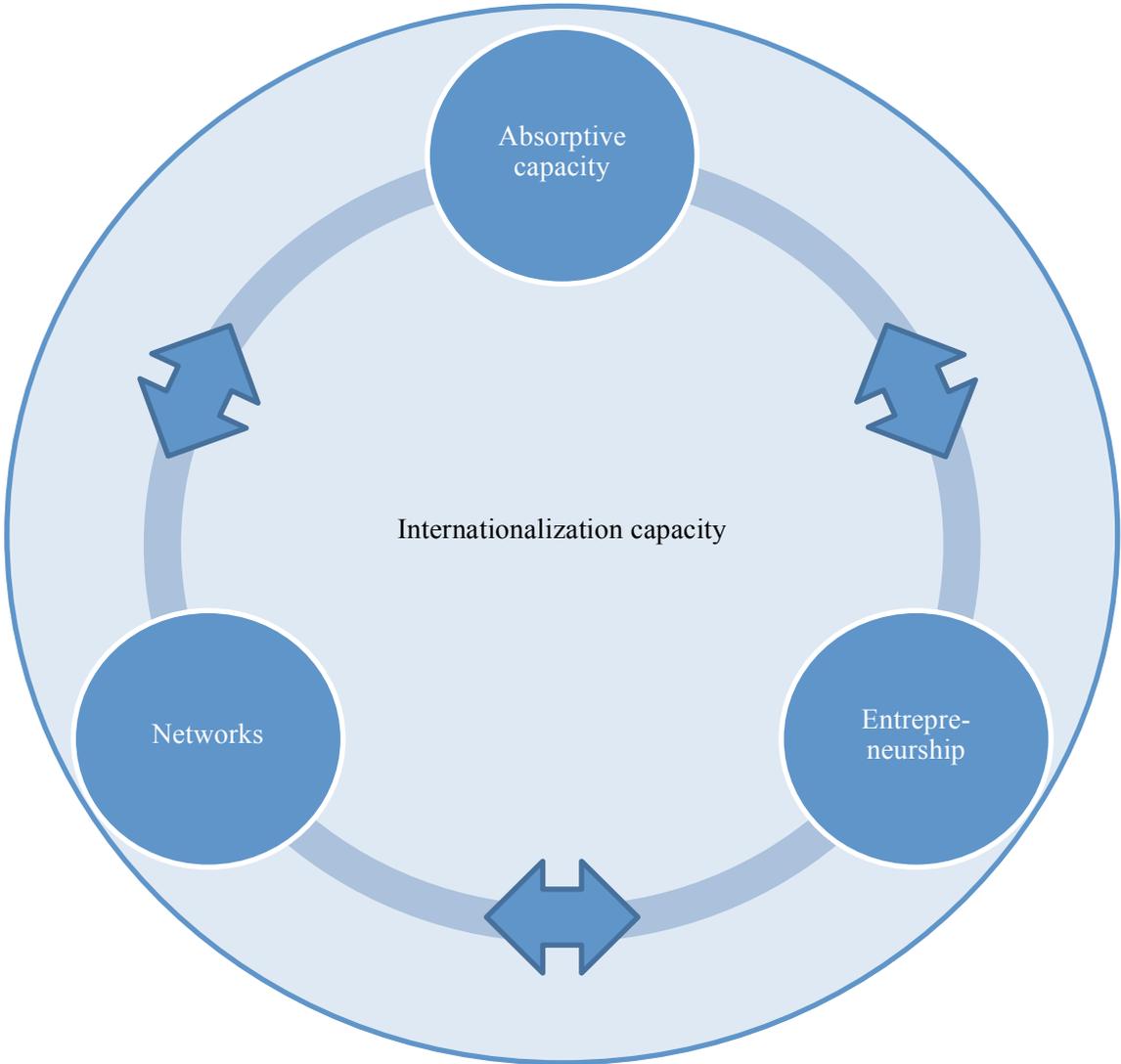


Figure 3

The dimensions found in the analysis are added to the model as listed:

- Identifying if prior knowledge exists within the organization
- Recognizing network ties that can be used to gain internationalization knowledge
- Recognizing network ties that can lead to establishment on foreign markets
- Supporting opportunity development in a strategic management process
- Transforming and exploiting knowledge gained through entrepreneurial activities

Using the model as an analytical framework makes it possible for researchers and managers to analyze individual SMEs and focus on the elements of internationalization capacity in a manner that includes the specific organizational and industrial constructions, which is preferable to a descriptive model that will express a complex dynamic in a too simplified norm, and thus lose its explanatory power.

We believe that the approach of using relevant elements from the different strands of literature can be summarized in an analytical approach, where the strength of each organizational capability can be measured, but also how the capabilities interact with each other. This approach resembles a model like Porter's Five Forces. An example could be for an SME to first identify its relevant network ties to both brokers and global companies, and then how these ties can be utilized in order to identify opportunities for new market entries. Doing this would reveal both the strength of the SME's network and its ability to perform entrepreneurial activities.

In order to further build on the internationalization capacity analytical framework, we provide some key findings and insights from the analysis, which have managerial and theoretical implications, and could possibly be dimensions in the analytical framework that can be analyzed in order to determine if the SME is able to increase internationalization capacity.

### Managerial implications

For the SMEs to increase internationalization capacity, it is important for them to internalize the capabilities that support further internationalization activities. Though it seems like a trivial and simple insight, it is extremely important for the SMEs to have one or more employees, who can manage the entry in a new market, which has only been the case in a limited number of the SMEs in the study. In the cases of acubiz, Nupo, and Ropox, these

SMEs have benefitted from hiring employees, who have a structured approach to the internationalization process, because they have previous experience and/or analytical skills from their educational background. Brodersen internalize the expansion of their network by hiring local country managers that have an established network in the foreign market, an approach that some of the SMEs like Colourbox and Powercare, who are also looking to expand their networks in new foreign markets, but are not focusing on hiring a country manager with relevant network, could adapt. Also, JLI Vision has previously used external resources in export programs, and has not been able to internalize the experience from these previous internationalization processes, which limits JLI Vision's current internationalization capacity.

Additionally, the SMEs are not aware of building absorptive capacity, as the internal organization routines and activities that support internationalization are often ignored because internationalization is perceived as an external sales activity, and the learning and knowledge gained through international activities are often isolated to the sales organization. Only two of the SMEs in the study explicitly focus on involving the entire organization in order to support internationalization activities, Acoplastic and Nupo. Establishing internal activities that focus on knowledge sharing and involving a larger part of the organization in the internationalization process can theoretically increase the SMEs' absorptive capacity, and internationalization capacity in turn.

Another aspect is that the SMEs that have prior experience from establishment in foreign markets seem to use exactly the same model in new markets, which underlines the fact that learning from experience enables the SMEs to create an individualized model for expansion, based on the SMEs organizational capabilities and its industry and environment, which has been done by Brodersen, DGE Group, and SafeCom. On the contrary, Colourbox and JLI Vision have prior experience with internationalization activities that have been unsuccessful, and as a result have chosen to limit their engagement in further entrepreneurial activities. They are not proactively performing entrepreneurial activities and will not be able to create an individualized model, as SMEs will only start the learning process at the same time as they start performing entrepreneurial activities. They exclude themselves from initiating entrepreneurial activities, and thereby limit themselves from

increasing internationalization capacity in a dynamic and self-reinforcing manner, which results in them being more reactive than proactive in the internationalization process.

### Further research

The internationalization processes of the SMEs turned out to be a lot less sporadic and serendipitous than expected based on the literature review. The general tendency of the SMEs' approach is market oriented, and they approach internationalization in a way that more resembles the classic stage model than the born global model. Presence is established in one market at a time, and internationalization thus happens in a very sequential manner. However, this can be caused by the sample selection as most of the SMEs in the study can be categorized as traditional SMEs or born again global. In order to incorporate this in a model or theory, studies should focus more on these types of SMEs, and be aware of the gap in literature about them, as noted by Schulz et.al (2009).

In order to further build on the framework model presented in this thesis, following the SMEs in a longitudinal study would make it possible to make more in-depth observations and identify the dynamics over time, which will help identify the key dimensions in the interaction of model components. This could also amount to a more quantitative approach, where the key dimensions could be measurable, and allow for quantitative studies to support the findings in the more exploratory, qualitative studies like the one that we have conducted.

## Conclusion

At the beginning of this thesis, we identified a research gap in contemporary literature on SME internationalization relating to a lack of an integrated theory of the organizational capabilities that drive this process. Within this interdisciplinary research field, we identified a multitude of ideas about what drives the internationalization process of SMEs. The concept of absorptive capacity emerged as the central element to describe the learning capability of SMEs in the internationalization process. In this context, absorptive capacity is defined as a dynamic, cumulative capability that enables the SME to absorb and exploit information. Prior knowledge forms the basis of absorptive capacity, and is seen in this thesis as prior internationalization knowledge that an SME or individual has collected from previous experience with network exchange or entrepreneurial activities. Furthermore, networks are viewed as the most important source of internationalization knowledge the SMEs can access, and can also influence establishment in foreign markets. Finally, entrepreneurship is seen as proactive behavior from the SMEs, both in cross border entrepreneurial activities and opportunity development processes.

Placing absorptive capacity as the central element, we developed a model of SME internationalization proposing that entrepreneurship, networks, and prior experience are the most important organizational capabilities in the internationalization process of SMEs. These capabilities add to absorptive capacity, and the aggregate of these capabilities then form an SME's internationalization capacity.

To further develop this model, and explore its applicability, we conducted a multiple-case study of 14 SMEs with different degrees of international presence; some have recently undertaken their internationalization processes, where they move from being exporters to establishing themselves on foreign markets, while others have years of previous international experience. Their accounts provided insight into the processes, decisions, and considerations that have led to these SMEs' international engagements.

The cases were interpreted and analyzed against the propositions we developed in conjunction with the model for internationalization capacity.

Through the analysis, we found that prior knowledge is not suitable to be included as a model component, and that the remaining components, absorptive capacity, networks, and

entrepreneurship had mutual dependencies. This can be seen in the internationalization processes of some SMEs, where network exchange and entrepreneurial activities were mutually reinforcing, especially in SMEs that demonstrated absorptive capacity in the strategic management of their internationalization processes. Instead of absorptive capacity being at the center of the model, it becomes a component of internationalization capacity on the same hierarchical level as network and entrepreneurialism. This modification reflects the finding that absorptive capacity in itself does not determine the internationalization capacity of an organization. It is a moderating dimension that is influenced by the organization's entrepreneurship and network, but that in turn also affects the other two dimensions.

The descriptive model became too static, as it neither incorporated the mutual dependencies of the model components that were evident in the findings nor reflect the dynamic processes that arise from these mutual dependencies. Therefore, the model is revised becomes an analytical framework that can be utilized by both researchers and practitioners as a starting point for organizational analysis, with key analytical dimensions suggested by the findings in the analysis.

For future research, we propose that the model of internationalization capacity is extended with additional dimensions, as well as subdimensions for each of the key dimensions it currently includes. These should serve to specify the mechanisms inherent in the organizational capabilities, increasing the model's explanatory power and applicability. For example, it would be interesting to create a system for evaluating performance on an ordinal scale, and then track the development of SMEs' internationalization capacity over time.

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## Appendix (Interview summaries)

### Ejvind Nyholm Nielsen and Jimmy Poulsen, Acoplastic

Acoplastic produces plastic components that are parts of the customer's machines. Acoplastic's value proposition is know-how, capacity, and counsel on plastic components. Acoplastic has to be very flexible, as they offer plastic components of varying size and quantity. Acoplastic operates on a niche market, and customers are located in all parts of the world, which the sales organization in Acoplastic cannot support.

90% of Acoplastic's sales are direct or indirect export, either direct export to international clients or sales to big, Danish companies that use the components internationally. Historically, Acoplastic has been an engineer-driven company, so the focus has not been on "exotic markets", and it is only over the course of the last 10 years that Acoplastic has realized that there is a large market potential for them as leading players globally.

Acoplastic has had good relations to two specific Swedish companies historically, but due to changes in ownership and strategy, these relations have been diminished. However, this has meant that Acoplastic has had many Swedish customers and an access to the Swedish market they would not have had without these relations.

Through Vitus, Acoplastic has conducted some analyses in Germany, but due to the varying nature of their components and demand for their components, it is difficult to conduct competitor and market analyses. Germany was chosen due to geographical proximity as it is Denmark's neighboring country and has an enormous demand for Acoplastic's products. Currently, Acoplastic has contact to around 40 potential customers in Germany. Acoplastic has been provided with information about around 2.000 potential customers through the Vitus program, but has chosen to focus on the 40 they have current contact to, as their organization of around 35 employees is too small to handle the contact to a larger number of potential customers. Acoplastic has found the potential customers based on industry segments, as Acoplastic's customers generally have an instrumental production process, and there are some of these companies in Sweden, a lot in Finland, and a very large number of them in Germany.

Acoplastic's sales process is largely dependent on making Acoplastic visible to the right people within the potential customers. In Sweden, Acoplastic has a salesman who is responsible for contact to companies and participating in conventions. In Germany, Acoplastic is trying to achieve this by setting up meetings through a consultant in the Vitus program, and by translating the home page to German to ease the accessibility for Germans. Acoplastic has tried to establish a local presence in Sweden a couple of times, but has not been able to find a Swedish company that complements Acoplastic with a relevant network to take over, and, therefore, has no local presence in Sweden. Currently, they are not looking for

a similar company or salesman in Germany, but will consider it if they find something relevant.

The internet is very important in making Acoplastic visible to customers, so there is a lot of homepage and search engine optimization. Acoplastic has a strong position within the niche market of plastic components, which is the most important sales aspect.

Most of the employees in Acoplastic speak German, and ENN and JP have both worked in Germany before. ENN and JP do not have relevant networks. However, they are accustomed to the German mentality and know how to conduct themselves. ENN has introduced a “German mentality” in Acoplastic, and has worked on making the organization focus on quality and processes, as German companies do, and the organization looks forward to undertaking an internationalization process in Germany. ENN and JP’s knowledge about the German market has been used instead of structured market analyses in the process.

Acoplastic had a goal to expand internationally, and Vitus participation was based on cheap access to considerable resources that Acoplastic does not have internally, and a more efficient communication channel to establish dialogues with German companies. Acoplastic has determined both short- and long term goals for the internationalization process, based on both establishment and revenue, as well as Acoplastic’s growth strategy of a 20% growth, which they know is unachievable on the Danish market. Acoplastic recognizes the need to employ more people to handle German customers.

Acoplastic has good relations to global, Danish companies, with whom they co-develop new plastic components and deliver large quantities of components to. Especially Grundfos has been a very important relationship, as Grundfos has historically contributed to establishing Acoplastic as a company. This relationship will not prevent Acoplastic from selling components to Grundfos’ competitors, but ENN would inform Grundfos about it. Acoplastic is very open towards customers, without revealing the specifics of their plastic components, and value trusting relationships, where they (of course) do not divulge specific technical knowledge of their customers to others.

Due to size and resource restriction, Acoplastic does not have an opportunity recognition process. However, ENN recognized the need for Acoplastic to become a larger organization in order to be able to handle more internationalization, but due to the financial crisis, there has been a delay in growth opportunities.

Acoplastic has no determined goals for further internationalization as Germany is such a big market that it takes all of the focus. However, Acoplastic is aware of the growth opportunities in the BRIC countries, and due to their global, Danish customers establishing themselves in these countries; Acoplastic experiences a pull-effect, but does not use it as a network opening in the BRIC countries.

## Keith Marikh, acubiz

acubiz (small letters deliberate) is a software company that delivers software that is used for expense management. Its product is thus, in short, an EMS (expense management system). This software is meant to make it both easier and more efficient to enter and process employees' expenses. According to Keith Marikh, expense management is second only to wage processing in the area of financial administration in most companies. A lot of time is spent on processing expenses, both by the employees incurring and entering them, and by the accounting department processing and approving them. Yet this specific area of enterprise management software has received little attention so far, being shadowed by products for wage management and enterprise resource management on a larger scale. Thus, acubiz claims to be operating in a market that is not yet in heavy competition, having cut out a niche.

The company was founded about ten years ago [CHECK FACT], with expense management software as its primary focus from the outset. Since the early days, the software was sold not only in the home market, but also in the neighboring Scandinavian countries, that is; Norway and Sweden. Being cloud based software, working independently of physical location and being easily scalable, there were not any physical boundaries preventing acubiz's EMS from being sold to customers anywhere in the world. But there were several other issues limiting its international distribution, primarily of institutional and legal nature. The way expenses are handled and regulated is different across nations. Norway and Sweden were relatively accessible markets because of their resemblance of the home market in the aforementioned areas.

About 1 1/2 years ago, acubiz decided to expand to markets beyond Scandinavia in a more focused manner. The goal was to build and maintain a network of partners in foreign markets that would act as intermediate to local customers. These partners are local IT service companies that already provide solutions in the same general area; software services for businesses, thus possessing general competence to learn about and resell the acubiz EMS.

The general approach acubiz has taken to entering a new foreign market is based on outsourcing the early stage of the process to a local telemarketing agency in the target market. This agency takes on the task of generating leads for both potential customers and partners. The goal is to get at least one new customer, and one new partner. acubiz then uses this potential new customer when negotiating with the potential new partner to make the partnership more appealing from the start.

Acquiring international customers has hitherto also been highly dependent on the network of the Keith Marikh and his colleagues. As an example, Keith Marikh has had many years of work experience overseas with Microsoft Dynamics NAV, an enterprise software suite that the acubiz EMS can be appended to for improved expense management. Thus, the international network of acubiz's employees has an important influence on what potential customers they try to reach.

Similarly, the prior experience is significant for the internationalization process of acubiz. Keith Marikh, who is responsible for the current, partner-oriented internationalization program has chiefly worked with partner relations in his previous job, and hence brings a sizeable portion of knowledge to the marketing team.

Since the software being sold is highly portable as stated earlier, acubiz basically perceives a large part of the world as a potential market. Recognizing opportunities in the market has not been a priority, as their product has a high degree of standardization and transferability. When it comes to entering a new market, acubiz follows its scheme of using a local agent and working with the leads they get from that. The organization tries to maintain flexibility, to be able to meet opportunities that arise by chance, but admit that it is challenging because of the resource constraints that result from the organization's limited size. They have to keep a narrow focus to follow through on their projects, and that does not allow for resources dedicated to discovering opportunities.

### **Claus Tranberg, Brodersen**

Brodersen has offices in the US, Korea, and Australia that have all been established during 2011. The primary reason for establishing these offices is time zone difference, which obstructs communication and support possibilities. In the US, it is important for customers that there is a domestic office, as they want a feeling of the product being “made in the US”. Prior to establishing its office, Brodersen had no sales in the US. In Korea, no-one has been able to successfully enter the market; there is a need for local presence and relationship building with the big chaebols like Hyundai and Samsung. Establishing offices also minimizes the risk and commitment in the internationalization process for Brodersen, as there is a fixed budget. Also, there is generally a need for local presence due to the nature of Brodersen’s products, as they can require immediate technical support.

Historically, Brodersen was able to increase sales because of technical superiority of its products, but due to the ease of which potential customers can find several companies like Brodersen offering the same products, there is an increased need to be close to potential customers.

The Korean and Australian country managers were hired from firms in CT’s personal network. Both managers had a “proven record” of vast experience and network, which significantly shortens the go-to market process for Brodersen and has meant that Brodersen has been the first foreign company to successfully establish itself in Korea, where Brodersen would have “no chance” to establish a network as foreigners.

Brodersen has experienced high organic growth, and has not considered joint ventures or acquisitions, as it would require a resource commitment to streamline new partners and merge them into the current organization. In other markets, such as Britain, which is Brodersen’s

largest market, and Germany, there has not been an immediate demand for local presence, though CT recognizes that “you would experience increased sales, when you have a local sales network”. Here, “there is no language barrier; there is a similar culture; and there is no time zone difference”.

Brodersen has historically gone through Danish Embassies in different markets to set up meetings with potential customers and partners, as this ensures a high level of seriousness. Currently, Brodersen is using the embassies in the Middle East, as these are closed markets with a few public institutions that control a large part of the markets. This shortens the internationalization process significantly for Brodersen and opens up for contact directly to relevant companies.

Brodersen expects to establish itself in Britain during 2012, as the British water market is in need of large, new solutions, which are so big and costly that Brodersen needs a local British project manager in order to handle the increase in demand. Also, “there is no doubt that local presence is what brings sales” so Brodersen also expects to increase sales generally.

Brodersen’s sales process is based on “hot” leads generated from approaches through the website and “cold” leads, where LinkedIn is used to find the relevant employee in potential customer companies, and then contacted to establish a “form of contact”, which is good when going for big customers, as Brodersen needs to “open their eyes” and make its product offering visible to them.

When new, big opportunities are on the horizon, Brodersen is often contacted by agents or the like, who have knowledge about, and are constantly aware of, opportunities, and want “a piece of the pie” by acting as middle men for Brodersen and its potential customers. Brodersen does not subscribe to services, where you can be updated about new projects continually, as there is too much irrelevant information that needs to be screened, and Brodersen will recognize new opportunities without it. Brodersen has previously participated in messes, but they do not provide anything useful. Brodersen has a good reputation within its industry, and because customers generally renew their products every 10th year or so, Brodersen can track where and when there is a demand for new products from its customers.

As Brodersen operates in a niche market and has around 90% international sales, the entire organization is very involved in international processes, and technicians can easily visit and support the international offices. Brodersen follows “global trends and needs” by potential customers, as the demand for its products is similar across markets.

Brodersen conducts market analyses to determine where there is the “most value for your money” and “proof of concept”, and has chosen not to focus on countries like India and China yet, as well as big South American countries due to high trade barriers. Currently, Brodersen is entering the Chilean market, as there is a no tariff trade agreement with Denmark, in order to use that as its “home field” and branch out to the rest of the South American markets. If so, the same process of hiring a trusted, local country manager with experience and an

established network would be used, and CT has expanded his network during the last half year of dealing with the Chilean market.

## **Anne Dorthe Hermannsen, cBrain**

cBrain is an IT-company that specializes in producing software for casework in government departments.

There is currently a one-man operation in Boston, working part-time to build customer relations in the US. This is a person from Denmark, who has previously worked with the founders of cBrain and is now stationed in the US for work, and so that operation is a result of serendipity, which Anne Dorthe Hermannsen stresses. So far, the company has zero international sales or export of any kind.

cBrain is interested in the German market, and has joined Vitus to gain access to it. The aim for this particular market arose after executives from cBrain incidentally showed their software to senior officials in a German ministry, who found it appealing and potentially useful for their work.

Export is an important issue for cBrain, since their product is intended mainly for ministries, and that puts a natural limitation on the potential market in Denmark. However, since the sales process is complicated and requires a high level of trust, cBrain chose to approach the German market with the assistance of Vitus. With the Vitus program, cBrain gained the stamp of approval from the Danish Trade Council, which seemed to be an important sign of acceptance that would lend cBrain credibility and trustworthiness.

Furthermore, in this specific case the knowledge embedded in the embassy in Berlin could be helpful since many of the embassy's daily dealings are with people in the German government, and therefore the right terminology and business procedures are familiar. In advance of locating their first export market, cBrain evaluated and compared different options, looking for a market with a governance culture similar to the Danish one. They found that Germany was a fitting possibility. The export process is still at an early stage, and it is not clear how the export strategy eventually will be structured. Anne Dorthe Hermannsen expects it will be based on finding a local partner who can implement and support the software locally.

Currently, cBrain is trying to find a pilot customer that can act as an early trial, both to gain a local reference but also to find if a local partner would be sufficient to meet customer service and support needs. There are currently talks with a few potential partners in Germany that are chiefly a result of personal network connections with international IT- and accounting corporations.

The senior executives of cBrain have prior experience with international activities from a company they founded and sold, Maconomy. However, the target market for cBrain is entirely different and so there is a limit to how much can be carried over.

EU procurement rules pose a significant hindrance to SME's sales to public bodies in the entire Union because there are insufficient resources for legal work in smaller organizations. So far, it has not been an issue in Germany, where there has been no sales. When the issue arises, the solution is possibly to get a (better endowed) partner to produce the legal work necessary.

According to Anne Dorthe Hermansen, cBrain needs to be extremely flexible in their opportunity recognition process. If anything arises, they try to be ready to act on it. Similarly, if a project or a lead does not turn out the expected result, it will be abandoned as quickly as possible. They do not have the resources to doggedly pursue a strategic goal. Instead, they admit to being as opportunistic as possible.

At this point, cBrain does not have high expectations for its export project and would be satisfied to get a single pilot customer within the next year. They've assigned around 20% of sales and marketing resources to it.

The primary method for finding a pilot customer is currently to have talks on senior executive level with potential clients. The network of senior level civil servants in Germany is rather closed, and difficult to get into without any personal connections. Embassy personnel are reluctant to share their network contacts because they don't want to get too mixed up in commercial interests.

cBrain has not had much success with trade fairs, and do not see it as a valuable channel because there aren't any senior level officers at these events. Political strategies and intentions have an impact on opportunities. If there is a political ambition to go paperless, for instance, that impacts the demand for casework software in ministries.

While it is rather coincidental that cBrain has a sales person in the US, it is still within a reasonable cultural proximity to be viable. Had he been stationed in Asia or South America, it would not have been nearly as interesting. Anne Dorthe Hermansen states that cBrain holds resources to make a larger push into the German market, but that it would be a waste of money before there is a pilot customer at hand who can work as reference.

## **Mads Martin Jørgensen, Colourbox**

At the very beginning of the interview, Mads Martin Jørgensen (MMJ) states that Colourbox's internationalization process is a lot different from other companies because it is a strictly online business. Initially, Colourbox was hesitant to participate in the Vitus program because the Foreign Ministry was viewed as an "old-fashioned, slow institution", but joined

the program anyhow. Through workshops, experience gained from other participants, and the assistance of the export consultant, Colourbox has prepared its products to an entry in the US market, and has also boosted online sales in the US.

Currently, Colourbox has local distributors in Norway, Finland, and Russia due to a large number of sales in these markets, and have previously had an office in Germany and a sales representative for the Benelux countries. The Norwegian distributor is a personal acquaintance (unspecified) and the Finnish distributor started cooperation with Colourbox “by coincidence”, but Colourbox was looking for a distributor at the time. Colourbox uses distributors to “branch out” locally and increase its customer base.

The US is an interesting market because it is the central market for online businesses and is moving fast. Colourbox is in the process of hiring a country manager for the US, as this ensures more control and incentive, and Colourbox wants to use experience from the US to improve its products. The job listing has been “sent out in [Colourbox’s] network” and posted on social media sites, where most employees have a strong, relevant network.

Colourbox is also focusing on the German market because “it is the 2<sup>nd</sup> largest market and is just south of the border”, and has several high profile customers already, which are used as reference customers. As noted earlier, Colourbox has had an office in Germany that was shut down because of unspecified employee issues. The current plan is to hire a country manager for Germany, who is based in the organization in Denmark.

When hiring a country manager, it is very important for Colourbox to know that the person can be trusted, and Colourbox uses networks “for everything, all the time, as much as possible, always, and all the time”. The primary responsibility of the country manager is to build relationships to and bring in “lighthouse/beach head” customers like CNN, Fox News, USA Today etc. To maintain relationships with German lighthouse customers, Colourbox has a German speaking employee in the office.

Colourbox only has one sales manager in the organization, who has experience with international sales, but the CEO also has some experience. MMJ does not have experience with international sales, but has international experience from working in Bavaria and San Francisco. Colourbox sees online sales as a global market, and does not focus on country markets specifically, other when based on “strategic considerations” as is the case in the US, where it is strategically important for Colourbox to be locally established; “if the product is good enough for the toughest market, it is good enough for any market”.

Local representation is important to Colourbox, both because of the subscription nature of some of their products, but also because closing deals and assessing customer needs is easier in person. Another reason that local representation is important, e.g. in the US, is time zone difference, which makes communication difficult.

The vision for Colourbox is to become the world's leading image provider; has the scale to provide images to the biggest potential customers in the US and Germany; and has grown significantly during the last years. Colourbox does not have specific goals for revenue based on international sales, but focuses on product pipeline management. Website and search engine optimization is very important for Colourbox in the marketing process, where the goal is to offer such a good product that there is no need for any contact to the customer.

## Hans Jørgen Nielsen, DGE Group

About 7-8 years ago, DGE bought a smaller company in Sweden, with the founders maintaining a 28% ownership share. This venture began in Calmar but expanded to Gothenburg later. Now, there are 20 employees in the Swedish subsidiary. The connection to the company came by chance, DGE talked to the director of it and they found similarities in their business models and market conditions in the two countries. Hans Jørgen Nielsen states that the connection and the project on a whole was a result of serendipity and not of preconceived strategic intent. The directors of both companies met at a conference.

The idea of having a Lithuanian subsidiary was an input from the Nordic Investment Bank (NIB), that was aiming to promote investment into Baltic countries. That subsidiary is owned 66% by DGE and 34% by NIB, and currently employs 6 people.

DGE has also been involved in Danida's Business-to-Business program (now Danida Business Partnerships). There is continued focus on possibilities here, with joint ventures in Vietnam, Ghana and Indonesia.

The market for DGE's services is stagnating in Denmark, since environmental standards there are improving. Therefore, export is an important goal to maintain growth. However, not all countries are equally well suited target markets because it is primarily "rich" countries that spend money on environment protection and remediation. Lately, Ukraine and Romania have allocated resources for these purposes, and are now potential new markets that DGE has set sights on.

Hans Jørgen Nielsen states that the company employs many highly skilled and specialized people, and that to keep them happy, motivated, and loyal to the company, it is necessary to keep getting new and interesting work (projects). That is another reason why internationalization is an important issue.

Polluted soil, ground water and air provide most of the revenue-generating projects for DGE.

DGE aims to be a sparring partner with their customers at an executive level.

Inogen network: International collaboration of environment consultants. Example: American company needs environmental report on Danish firm (before acquisition, for instance) and gets to a competent consultant in DK through Inogen.

- Danish sub: DKK 45 mill. rev.

  - Single international projects: DKK 9 mill. (Ghana, Malaysia etc.)

- Swedish sub. DKK 20 mill. rev.

- Lithuania sub. DKK 2 mill. rev.

The Malaysia project is officially closed, with possibilities for future projects but nothing particular in sight. Indonesia was ended because there weren't enough resources to keep operations going. Vietnam is in development, with a recently founded joint venture there to assist Danish and other Scandinavian companies expanded to Vietnam.

The Ghana project is about potable water, and came to be after a Ghanese Ph.D. student worked with DGE for 3 years. As a result, DGE is now helping to build wells in Ghana to provide drinking water. So far, it is not commercial, but if it goes well it might be developed further, and become a joint venture. So far, the project is a collaboration with Danida. It is a requirement from Danida that the Business Partnership Program is carried out with a local partner, and thus the joint venture is the preferred choice.

DGE's Vitus program participation was initiated when they were developing the project in Malaysia. Hans Jørgen Nielsen states that the company has previously not had much attention to the market aspect of its business, focusing primarily on its core product and competences. Working with the Vitus project has given deeper insight into the market-oriented aspects of DGE's business.

DGE's participation in Vitus was focused on south-east Asia as whole, and thus not on a single country.

Vitus itself has provided access to a useful network of Danish businesses that function as sparring partners, and has also been valuable in this way.

There have been skeptics in the organization towards the international projects, because they demand resources from leadership. Most employees at DGE do not have international experience, with three exceptions, and the foreignness of their new markets. To overcome this, people who have been abroad get to tell about the experience in when they return, in fora where all employees come together (case in point: Christmas lunch). There is openness to integrate Danish employees into more international projects, but it is driven by the individual employee, and not by an expressed strategic intent. There are a handful of people who join all international projects, and then others join on basis of competence.

So far, doing joint ventures has been a success for DGE, and that experience weighs in when considering new international projects or potential markets. The cooperation has worked satisfactory, and it has been a benefit to have local partners that know of cultural and institutional obstacles and opportunities. These local partners in overseas countries (Asia/Africa) were found through Danida networks. Potential partners were screened from a list, but were selected based on meetings face-to-face. Hans Jørgen Nielsen states that building relationships is important, and that especially the director of DGE has been in demand by local partners because they want to see the person in charge. Also, the local partners' networks are valuable to find opportunities in the new markets, providing leads.

The Danida B2B process looks like this:

1. Visit phase: for about DKK 125.000, - general opportunities are researched.
2. Planning phase: for about DKK 500.000, opportunities are explored in detail, leading to a plan for the project.
3. Implementation: If the project is approved, this stage implements it for typically between DKK 3-5.000.000,-.

The project in Vietnam was a result of a contact made on a trade exhibition in Malaysia of Danish water technology. There, a Vietnamese company approached DGE, interested in doing a project with them. This was then supported by Danida. Hans Jørgen Nielsen states that this was also much of a coincidence, rather than a result of a strategic plan.

DGE is interested in finding and exploiting further market opportunities abroad. A specific goal in the near future is to expand to Poland. However, the biggest constraint is financing. DGE is interested in repeating the process that led to their incorporation in Sweden in Lithuania, but estimates the cost to be somewhere between DKK 3-4.000.000,-. This amount is not readily available in the organization, and other funding options are therefore being explored, for the process to be similar to the one in Lithuania. DGE needs an investor, and the NIB is not eligible since it is limited to non-EU projects.

The Lithuanian subsidiary is tasked with finding potential partners or acquisition targets in Poland. This is for practical reasons, since languages are close together and the Lithuanian employees have a more substantial network in Poland. In Hans Jørgen Nielsen's words, they are "closer" to Poland than the Danish HQ is.

Hans Jørgen Nielsen acknowledges that future growth should come from international projects. Total revenue is currently DKK 70 mill p.a. and is targeted to increase to DKK 100 mill. in 5 years.

With the experience DGE has gained in Ghana, it is possible that neighboring African countries will become target markets in the future, similar to the way the Lithuanian subsidiary is used as a stepping stone into Poland.

## **Mads Sigsgaard, Dybvad Stålnudstri**

Dybvad started its internationalization by selling freezers to the Norwegian fishing industry in the start of the 1980s, and then spread further after that. In the end of the 1990s, Dybvad identified its plate freezers as a niche product to be sold to food companies, and determined that they needed to operate on the global market, as the Danish and Norwegian market was too small to support its operations.

Dybvad has an indirect sales process as they sell to freezer/cooler installation companies, who offer support to end users. Recent international sales have been dominated by big projects, where Dybvad has had a large share of its revenue through its big, global partners, but is recently spread over smaller partners as well, which is based on relationship building to more partners, offering better support and conditions for payment.

Dybvad has a strong positioning in the market and stands for good quality and good support conditions/stability.

Dybvad has gained a lot of knowledge about its big, global partners and focuses on maintaining a good relationship with them, primarily through a bi-annual international cooler/freezer conference in Nuremberg. Dybvad spends a lot of money on conferences, both to maintain relations and to market themselves towards end-users. Dybvad is typically the only plate freezer producer present at the conference.

The end-user has the final say in the choice of plate freezers, even though Dybvad sells through a middle man. Additional to conferences, Dybvad markets itself toward end-users through advertising and search optimization.

Dybvad recognizes opportunities through communicating with its partner network and also customers. When Dybvad starts on a new project, there's a long project time, but they can handle several projects simultaneously. The EU has regulation that requires a replacement of coolers, and many producers prefer plate freezers as they increase their production capacity, which Dybvad is aware of and can expect many projects with existing partners. There is also a focus in the US on environmentally friendly freezers, and Dybvad has been contacted by both end-users and partners due to this. Hence, Dybvad does not really try to recognize new opportunities presently.

The sales organization in Dybvad is made up of 2 persons, which also influences its sales channel choice. Those 2 persons are the only people involved in the international sales process, and are the ones who are present at conferences. There is a dialogue in the

management team about international strategy and budgeting, but the sales persons do not share its specific experience. The two persons in the sales organization has prior international experience, but has limited use of their previously established network.

Dybvad has a focus on continuous optimization of its products and uses the feedback from customers and ideas/feedback from the production and service employees in this process through an open dialogue.

Dybvad has 3-4 global partners and “many” local partners. Dybvad has several, continuous projects with its big partners, where projects with local partners are more individually based.

Dybvad participated in the Vitus program in order to focus on Brazil, but its participation was coincidental, as Mads Sigsgaard (MS) had been on a trip, looking at Brazil with the agricultural and food organization, as Brazil is the world’s largest producer of food. Language and distance was mentioned as barriers. Dybvad had sporadic leads from Brazil earlier, but faced too high export tariffs, and was challenged by the fact that a different freezing technology is used in Brazil.

However, they see the difference in technology as an opportunity, as Dybvad’s technology is superior. Dybvad is advertising in Brazil and is planning to participate in a conference to make themselves visible. Also, they are using its global partner that is already established to “spread the word” of Dybvad in its network. They use test projects to sample its products to end-users. Dybvad expects Brazil to be the market with the most opportunities at the present, as there is a need for Brazilian food producers to update their current technology in order to stay competitive in the global market. Dybvad also uses conferences to gain insight in new opportunities in the food industry.

Dybvad is currently establishing a local presence in Brazil through a local agent, which Vitus could help them with. As an addition to a local agent, Dybvad is in the process of getting a formalized agreement with one of its global partners, who is already present in Brazil and South America, in order to break into the partner’s network and circumvent import tariffs, which is a huge barrier in selling to Brazil, as it increases prices for foreign companies like Dybvad.

Also, Vitus helped Dybvad in marketing itself toward key local partners. Vitus also helped Dybvad by conducting a market analysis of partners and customers, who can use Dybvad’s technology.

At the present, Dybvad does not have any further goals for its process of establishing a presence in Brazil than to “break into the market”.

**Jørgen Læssøe, JLI Vision**

JLI Vision produces systems for production control based on vision. They design a system, buy the necessary hardware, and customize their software to fit the needs of the customer.

Jørgen Læssøe submits that the export JLI Vision has had is a result primarily of serendipity. So far, the company has connections and customers in the UK and Japan, and a few odd projects in other countries. The UK export stems from Jørgen Læssøe having a network there and experience with the culture through spending a few years playing rock music in London. Also, from working at the Jørgen Andersen engineering company, Jørgen Læssøe had professional acquaintances in the UK that proved useful for going abroad. Getting customers seemed like a natural first step after founding the company around 23 years ago.

In the beginning, JLI Vision used an agent in the UK who provided project opportunities. From one of these projects sprang an article about it, and about the technology used to make it possible. That sparked the interest of a Thai company, leading to JLI Vision making a project with them. The Japanese customer came after a project in Thailand, and is thus also a result of serendipity, rather than a strategic choice.

Today, JLI Vision spends money primarily on Google Ads and optimizing their website for search engines (Google). The company has never pushed to make a sale, or made any effort in that direction. Instead, they prefer customers to come to them based on recommendations and because the potential client has an actual need for the product.

JLI Vision participates in different trade fairs.

Revenue from international sales varies much over the years. It depends on how many projects from international customers come in in that particular time period.

Usually, new projects do not generate a lot of profit, and often no profit at all. What brings in money is recurring orders from businesses who bought into the JLI system. There are service agreements where JLI Vision provides regular maintenance and updating of installed systems.

Building relationships to Asian customers takes a lot of time, but can also be very valuable because they tend to be loyal.

JLI Vision's Vitus participation focused on Sweden. At the time, JLI Vision employed a full-time sales person, but that had not rendered any results. The Vitus program was seen as a final attempt to make a "push" sales effort, getting professional assistance from the Trade Council.

Jørgen Læssøe laments that the Vitus participants were very different, but pooled together as group nonetheless, getting the same broad information about international marketing and sales. In the end, that was not particularly helpful.

He concludes that the most successful strategy for JLI Vision is to stay visible on the market and keep making good products. Then customers will come to them. Nonetheless, he maintains that the best way to find out what works is to try different things.

Currently, 15 engineers are employed at JLI Vision, with most of them being recruited directly from technology institutes.

The sales process is typically that JLI Vision receives a request or an expression of interest in their product from a potential customer. JLI Vision then asks for more details on the project and makes a quotation. If the quotation is acceptable to the client, the project is initiated.

Jørgen Læssøe keeps an eye open for new opportunities arising out of, for instance, new factories being built, in industry publications and on the trade fairs he attends. He will sometimes contact these potential customers, but this rarely leads to an immediate sale. Instead, it may take a few years until such seed will come to fruition.

JLI Vision has built a reputation of being expensive and one of the best in the industry, and this Jørgen Læssøe finds satisfactory for attracting the right kind of new customers and maintaining existing ones.

JLI Vision has, before Vitus, bought bundles of export promotion from the Danish Trade Council to target the German market, but that has not rendered any results.

Jørgen Læssøe claims it is difficult, neigh on impossible, to build a strong customer network because their customers come from such diverse industries.

JLI Vision maintains an intranet where knowledge is shared, both about technical development and issues, but also about customers from overseas and how to handle, practical things to keep in mind when travelling etc.

## **Stig Bloch, Mensa Heating**

Mensa Heating is a small organization of 3 employees: Stig Bloch, Lars, and Hans Jørn. Mensa has Østjysk Innovation as investor, and has one of the board members involved in operations. In the production in China, there is between 50-100 product line employees, four office employees, and a Danish production inspector. In Mensa's three year plan, 90% of revenues is expected to be based on international sales.

Mensa's international sales began when they participated in the Spoga convention in Germany, and were the first to introduce their technology of heating systems under tables, and became visible in the market. However, SB and Lars realized that they did not have the needed experience with international sales and hired sales manager Hans Jørn, who is one of SB's friends' dad and has experience with international sales, as well as a large network with Danish retailers, which Mensa used to sell to the largest Danish retailers within a week of hiring Hans Jørn. Hiring Hans Jørn is described as a "coincidence", as Hans Jørn heard about Mensa Heating at the Spoga Convention.

It is important for Mensa to participate in the Spoga Convention; it is the most relevant and used happening to meet new distributors, and Mensa invites current and potential customers to participate in order to present new products for them.

Mensa has its production in China, which has resulted in copy products, but does not threaten Mensa as the products are far below Mensa's in quality. However, it is a minor issue when Mensa enters a new market where copy products are already being sold, as Mensa then has to "defend" its products. The scale of Mensa's production is not sufficient to handle extremely large, new orders, e.g. an order of 100.000 units, which would mean that Mensa would have to close down production for other distributors for a year in order to handle the order. Mensa chooses not to do so, in order to spread and minimize risk.

Mensa's strategy has been to use distributors from the start, as Mensa does not have the resources to handle agents etc. The distributors have contractual obligations to purchase a minimum amount, which lowers the risk for Mensa, and the contracts also define Mensa's role as being strictly manufacturer. When Mensa chooses a distributor, it is important that the distributor presents itself in a way that is ambitious, but realistic, and that Mensa trusts that the distributor can live up to its commitments. Furthermore, Mensa wants a partnership and continuous dialogue with the distributors, so they can "be in it together", and Mensa is inclined to help its distributors in a lot different ways, e.g. producing PR material. Also, Mensa uses the experience from different markets to introduce new ideas to other markets.

Hans Jørn's experience with international sales (and age) makes it easier for Mensa to negotiate and commit distributors to larger scale contracts than SB and Lars would be able to. Furthermore, Hans Jørn has market knowledge that opens markets for Mensa, e.g. Finland and Norway.

Their current distributor in Germany, Austria, Switzerland, and the Benelux countries is also someone that Mensa met at the Spoga convention. The distributor's network in these countries has "opened doors" for Mensa, as the distributor has introduced Mensa's products to numerous retailers.

Spain as a market has been opened due to another "coincidence", where SB was interviewed by a Spanish entrepreneur magazine where he mentioned that Mensa needs distributors in Spain and had 35 approaches by Spanish distributors based on that. SB "tried his luck" by doing this. Mensa has chosen a Spanish distributor, who will establish a new company, Mensa Heating Spain, and sell Mensa's products exclusively.

Certificates and approvals for the products are a barrier to enter a market, as it can close off a market, if Mensa is unable to get its products certified. Especially the US is "the devil's market" for certificates. It "often stops, hinders, and delays a process", and being certified half a year too late has prevented Mensa from a big order from Wal-Mart's online store.

Even though Mensa is strictly a manufacturer, private label question is out of the question, as the value of Mensa's brand is one of the top selling points for the products. Admitting adverts on their products is the closest Mensa will come to private labels.

Currently, SB is working on Hungary, Moldavia, and Romania through Josef, who does not meet Mensa's requirements for a distributor, but is used as an entry point for the three mentioned countries, and Mensa is drafting a distributor contract for him. Josef buys products through the German distributor and sells them on his markets, and is described as a "win-win" relationship.

SB is also working on the British market because Mensa has lost its distributor on the market, as it is being shut down.

It is difficult for Mensa to seek out new distributors, which has resulted in Mensa choosing a strategy of doing PR and exposure to make distributors take notice, and then react on approaches. SB is participating in "Enterprise Europe Network" in order to seek out new distributors, and has been in contact with a consultant from Eksportrådet, but SB is skeptical towards the benefits and usually declines offers to participate in similar events, as it has been a big time commitment without results when he has participated.

Mensa has won a "Young Entrepreneurship" award, but the participation in the contest is described as a "good exercise" by SB, but has not provided Mensa with a network or increased Mensa's visibility in the market.

In a long-term aspect, Mensa still does not plan on establishing its own sales offices etc., but will maintain its small organization and distributor driven sales. Mensa invests a lot of time and energy in the Danish market, which makes it difficult to focus on more markets, and SB sees the local knowledge and networks of distributors as a big advantage, even though "it is an expensive link".

## **Frank Bach Rasmussen, Nupo**

FBR is new in the job; he graduated from cand.merc.IB in February 2011 and was hired in August 2011.

Nupo's revenue is around 100 million DKK, where sales in Denmark account for around 90%+. Internally, 12 people are employed in sales/marketing and 20 people in production, packaging, and distribution, but Nupo also has external sales people and production in different locations in Europe.

Nupo was traditionally an inventor-driven organization with no real focus on sales, but new ownership (around 2001) changed this focus and established a more structured marketing process and Nupo brand.

Nupo has had limited sales in Europe: “A bit of sales” in Iceland, which functioned as a client in Denmark; Norway was mentioned as a “hyggeprojekt” as Nupo were contacted by someone who wanted to sell their products; Sweden is the same as Norway. Nupo have established themselves in Slovenia in 2011, but there has been no real strategy, sales have been driven by approaches. Slovenia is a strategically valid market to be established in, as Nupo can sell to a distributor and thereby spread sales to the Balkans, where the distributor already has a network. Nupo has been contacted by a distributor in Croatia because they have seen the product in Slovenia and since conducted research and concluded that they liked the design, history and clinical documentation from Nupo.

Based on the distributor contact in Slovenia, Nupo has become more strategically focused on internationalization during the last year, where FBR was hired to have a more focused internationalization process. FBR uses his knowledge and experience from his studies, e.g. Blue Ocean Strategy, when analyzing opportunities for new internationalization processes in new markets. Additionally, FBR has a personal drive for internationalizing the Nupo product, and Nupo as an organization wants to be flexible and open for change in their new focus on internationalization. Nupo sees internationalization as a strategic necessity for growth, and so far there has been little risk involved in international sales, but top management is aware of the risk and opportunities in India, and is willing to invest in the process as long as there is a possible pay off.

Nupo wants one big distributor per country/region, and are currently discussing the involvement of their Slovenian distributor in their establishment in the Balkans. Nupo focuses on few, but close, relationships in their distributor network, where the distributors’ network is the basis for the further establishment.

Nupo has very limited export sales currently, and are focusing on internationalization. Though Nupo has no concrete goals currently, they are in the process of establishing goals for international sales, markets, and time investment.

Nupo has chosen to participate in the Vitus program with focus on India. India was chosen based on an analysis, where there is a need for diet products and where Nupo is expected to go, but FBR then chose to focus on a Blue Ocean Strategy as basis for a new export market, which they have experience with from their establishment in Slovenia, which has given Nupo the confidence to do it on another market. FBR says that there might be more sense in trying it out in a smaller market, but on the other hand, “if you are going to do it, you might as well do it to the full extent from the start”. Though Nupo was determined to start a big internationalization process, they chose to participate in the Vitus program because they were inexperienced. Nupo focused on the BRIC countries due to growth opportunities and found big markets for their product, especially in India, where ~20% of the population is obese and a very large population, and has a large market for diet products based. Nupo already had contact to an Indian consultant firm, which was an important factor in choosing India as market, as they already were a part of Nupo’s network, and Nupo trusted the firm. Exporting

to India is blocked by a 50% export tariff, which has driven Nupo to determine the possibility of establishing production in India through a joint venture or strategic partnership. Nupo does not have a strategy that is set in stone, but evaluates and finds the best partner/distributor by speaking to them in person.

The commercial director of Nupo has limited experience with international sales, so the experience of Nupo is largely limited to the experience from Iceland and Slovenia. The CD and FBR are now responsible for the internationalization process, where FBR uses the CD's previous experience in his own process by asking the CD for advice and his experience from previous processes.

There is a good deal of knowledge sharing within Nupo, but mostly informal because the organization is so small. If Nupo had not participated in the Vitus program, which required a detailed go to market plan, they would not have much knowledge in written form.

The consultant firm in India was found in the CD's network, but more partners have been found through an analysis by FBR and in the network of the consultant firm, as well as through the Vitus participation. Currently, Nupo has a few potential partner candidates, whom they have already met in person. The strength of the consultant firm is its large network in India, and has been used in order to contact partner candidates.

FBR is responsible for market analyses, where analysis institutions, focus group studies, and relevant databases have been used to analyze the Indian market. There is no determined strategy for new markets, but FBR analyzes both distributor and market situation when approaches about the Nupo products are made. However, in India, there is a long term strategic mindset, where India can be used as a platform for further establishment.

In opportunity recognition, South Korea was mentioned based on no-tariff cooperation between them and Denmark.

The time commitment to the process in India is becoming bigger and bigger, and is consuming a lot of the time of the internationally minded employees. Nupo as an organization has accepted the new focus on internationalization, and is determined to support it strategically, e.g. by adapting the products to the Indian market. There is a lot of goodwill for internationalization in the organization.

## **Lisbeth Sejer, Powercare**

Powercare has international experience from being present on the Norwegian market for the last 12 years, and also some experience from Sweden. Powercare does not have offices in those countries, though it has been considered, as it is possible to handle most daily operations from Denmark, and Powercare simply have temporary local offices when needed.

However, Powercare conducts several customer visits and aims to maintain good relations within Scandinavia.

Currently, Powercare is establishing an office in Dubai in order to enter the Middle East, notably Dubai and Abu Dhabi initially, as these two city states are the most advanced and accessible, and then Qatar afterwards. Powercare has been advised by the Danish Embassy to establish a local office because local presence, and relationship building, is important in the Middle East. Powercare has chosen to enter the Middle East both because there is currently very low competition, but also because LS has recognized a desire from their candidates to be stationed there. Powercare first attempted to establish partnerships with British agencies that had contacts to the Middle East, but did not see it as a profitable business model as the British agencies demanded a large part of the profits. At the same time, LS used export packages from the Foreign Ministry to access market analyses of Australia and the Middle East, and recognized that there was a good market opportunity in the Middle East.

LS was unsure of how to enter the Middle East, as she was not sure how to establish Powercare in Muslim societies, and feared that the Mohammed crisis would still be a barrier for a Danish company. Thus, Powercare participated in the Vitus program with a focus on the Middle East. Here, an export consultant has been responsible for finding and having initial contact to potential partners for Powercare, which has resulted in Powercare already having contracts with a number of hospitals. LS notes that being supported by the Danish Embassy in the process has meant that Powercare has been immediately accepted as a serious company by potential partners.

Powercare is participating in the Arabian Health Mess, which is held a week after the interview, where Powercare will be supported by the Danish Embassy and Pia Olsen Dyhr, Minister of Trade and Investments, will also be attending. The timing of the mess is noted as coincidental by LS. LS expects to use the mess to get network relations with companies that are established in the health sector in the Middle East.

The office in Dubai will be run by a country manager, who has worked for Powercare for four years, has been involved in the internationalization process from the start, and has expressed a personal desire for going. Currently, he has no relations to the Middle East, but LS expects to hire a local employee as well to complement him.

The sales manager of Powercare has previous experience with the Middle East, but establishing an office in Dubai is described by LS as an entirely new and different process due to regulations, and LS will use the Danish Embassy and Eksportrådet as consultants in the process.

In Scandinavia, a lot of Powercare's business is based on a strong position and reputation, which is also something Powercare wishes to achieve in the Middle East. LS credits the participation in the Vitus program for being the reason that Powercare has already established

itself, and, additionally, Powercare has launched a new website and drafted PR material in Arabic.

LS says that Powercare “is not that careful, we are quick to act when we see a possibility”, and has experience with failing to establish itself on a market, which also makes Powercare more inclined to spread and handle risks. The idea to enter new market is usually created within the Powercare organization, where LS says that it is “based on knowledge and experience that is learned from others”.

Powercare uses its network to identify new market possibilities, and LS thinks that it is beneficial to use the Danish Embassies in markets, where there are no direct contacts, though it is an expense. Currently, network contacts are making Powercare focus on Singapore, Hong Kong, and China as future market possibilities, when Powercare has been established in the Middle East. LS believes that going through her network could be an advantage, but expects to go through a similar process as the Vitus participation. This cannot be done at the same time, as it is a huge investment of resources and time.

When assessing a market possibility, LS uses her network to get in contact with people, who have experience with that market.

Powercare does not currently store its experience from the internationalization process, but has detailed e-mail correspondence from the Vitus participation that can be accessed, and will summarize and store the experiences from the process and intends to use it for future market possibilities. Because of “exotic value”, a big part of the organization has wanted to be involved in the process, which has consumed a lot of resources.

## **Peter Bjaldby, Ropox**

Ropox has resellers in about 28 countries, mainly in Europe, Asia, North America and Australia/New Zealand. The goal of this process was export and trade, rather than establishment of local representations. Everything (almost) goes through resellers. These are typically identified through relations that Ropox-employees in sales and marketing have from prior dealings, or on trade shows/conferences. These trade shows are visited by companies or institutions looking for products of the type Ropox produces. (Medica Germany). In other words, this process has been highly reliant on existing networks and networking. The next goal, or level, in their internationalization is to focus more on specific national markets. One part of this is participation in the Vitus program, that is focused on Germany. This entails a full go-to-market and segmentation report for the German market. The different traditional approaches to setting up an office abroad were discussed and evaluated.

The German market was one of two markets that are now targeted, the other being Sweden. The Swedish market is interesting because it has many similarities to the Danish home market and the Norwegian market, that has already seen a substantial level of sales. In these markets,

it is primarily the public health care sector who is customer. The German market is the largest market in Europe, with the best economic situation. Also, it has proximity to Denmark. There is a reasonable (desirable) amount of public funds dedicated to this area of healthcare.

Peter Bjaldby has personal experience from InvaCare, the world's largest supplier of care products, and working in Germany. Ropox has a partner in Sweden (Stockholm) that works with construction projects preparing apartments for special care inhabitants. This is done through a new company, founded together with the Swedish partner. Current distributors in Sweden maintain sales of other (ordinary) products.

Ropox has been on foreign markets for the past 10 years. Out of Ropox' total revenue, 70% are from export.

Norway and UK are current major export markets for Ropox. In the UK, a third model is utilized. There, an English employee works independently as a sales rep, directly on contract with Ropox.

The Swedish project, with the new joint venture, is a result of an awareness of the market opportunity. There was no other company targeting that market in Sweden at the time of the incorporation of the Swedish joint venture. The projects often have a time frame of three years, and ordinary distributors are mostly not interested in having to wait that time to make revenue. The joint venture is to minimize risk, by splitting it between the Danish and Swedish companies. Also, there is a relationship with the Swedish partner that needs to be included. If Ropox enters the market alone, the Swedish partner would view it as competition, harming the relation. Finally, there is value in having a local partner that can handle practical issues that arise when dealing with local idiosyncrasies. Risk mitigation has been the deciding factor for deciding on a joint venture in Sweden.

There has not been a discrete process of transferring experience (knowledge) from the Swedish to the German market. This is because Ropox perceive these markets as being very different from each other, based on differences in culture and institutions. Also, risk mitigation is again an important issue.

In Germany, a single vendor has been an important partner. But in the wake of this, they're now beginning to look for more vendors to build a partnership with, because current relationships are not deep enough, and not extensive enough. Now Ropox is beginning to generate leads individually, and pass them on to local partners in exchange for commitments to follow-ups and sales targets.

Leads are generated partly through databases that index building current and future projects, and partly through connections from the embassy, i.e. Vitus/the Trade Council. The official "stamp of approval" from the embassy is important as a door-opener.

There is a key account manager who is responsible for the German market, and Peter Bjaldby, who has lived in Germany for a number of years and worked in the home care industry.

However, there are not sufficient resources to be fully present in the market independently, and the middlemen are thus necessary to keep in touch with customers and make and maintain customer relationships.

Future revenue growth is projected to derive from export and export growth chiefly. The goal is to make the German and Swedish market generate the same revenue as the currently biggest markets Norway and UK.

BRIC markets have been considered, but the "exotic" element is a turn-off, and that simply makes it too difficult (resource-intensive) to make a serious attempt at it. The institutional and cultural barriers are too high, in other words.

Peter Bjaldby holds that due to the small size of the organization, any potential possibilities for market opportunities through personal networks have already been discovered and investigated. It has not been much apart from the two people in the marketing organization.

Currently, there is a trial of an hourly-paid sales employee in the UK to complement the one already working full time. Four months in, it shows promise, and potential to hire that second full time sales rep for that market. Peter Bjaldby thinks that Ropox generally is an organization with the resources and the mindset to go after market opportunities if they arise.

The Norwegian market is based on a large vendor there, HandiCare. This company was the gateway into the market and remains the biggest partner there. UK is a different story, with a health care market that is very similar to the Danish market. The market was chosen because of its (large) size, and the large market for care products. There, 10-12 vendors resell Ropox' products, with 3-4 accounting for 80% of revenue in that geographic market.

## Hugo Marqvorsen, SafeCom

The internationalization process of Safecom has largely been caused by a pull effect of getting HSBC Bank as customer in 2004 and the goal of the product, which was invented in 1998 in Idata, has been to export from day one, and already had international access. This created a natural need for an international export strategy, which focused on a high service level. In 2006, an office in the UK was established as it was the largest market, and Safecom needed local employees. The main geographical area is Europe and the biggest competitors are American, who are notorious for their inability to sell to Europe. It is a strategic point for Safecom to be present in the local markets in the main countries in Europe; Germany, France, and the UK.

Getting HSBC Bank as a customer was largely a coincidence; HM was meeting with HP in the UK where he overheard a conversation about HSBC visiting and HP did not have much to offer, so HM offered his product and was invited to present Safecom at the meeting, which led to an order from HSBC and was a prestige project. Due to the nature of Safecom's

product, there was a need for Safecom to find companies who were willing to be early adaptors in order to find references for the product, which happened with HSBC. It was “the right client at the right time” for Safecom.

Safecom was established when Idata went broke, and used the existing partner channel, where HP was an essential partner, and found 5 of the existing 20 partners believed in the product. 4 of these partners are still top partners for Safecom. These partners are solution integrators and value added resellers who continuously have the best results and that Safecom has the best business with. Establishing a new partner takes 12-18 months before the partner provides good business if they know nothing about the technology. HP is an important printer vendor partner who uses Safecom globally.

Lincoln University also became a client, so Safecom had a reference client from the educational system and the financial system early on, which boosted Safecom’s growth, which was achieved by mouth to mouth references and canvassing customers and partners through “hard legwork”.

Later on, Safecom became more structured in its market analysis, which was apparent in their approach to Germany, where they used export services from the Foreign Ministry, where an export consultant was used to contact financial institutions and used the letter head of the Foreign Ministry to approach 25 financial institutions, which resulted in a 50% interest response rate. HM calls the export services “relatively cheap resources to scan an export market” and has done the same in China, Singapore, and Hong Kong and will do it in France this spring as well. It has been used to achieve the highest response rate for the lowest price and has been very effective.

The establishment in Asia has been a pull effect from HSBC and other global, private clients. HSBC has introduced Safecom to a local printer vendor, which resulted in a partnership and later an office in Singapore was established with a local country manager and support office with 3 employees, which is expected to be expanded this year. Safecom’s strategy has been to “earn the money before we establish”. Safecom has an order from HSBC that entails all of the 23 countries in the Southeast Asian region.

HSBC and Nestlé are some of the partners/clients that are globally established and have pulled Safecom to new markets. Safecom has been very flexible and responsive towards the global partners/clients, especially towards early adaptors, which has resulted in Safecom being pulled to new markets even though they had no direct experience. HM mentioned the book “Crossing the Chasm” by Geoffrey Moore, which HM has used to reflect upon the experience of Safecom.

HM describes Safecom as being lucky and “at the right place at the right time” initially, but has become more and more structured and planning since then, but this was not appreciated by the CEO/owner and Safecom was based on opportunistic sales, but used Deloitte to establish a business plan for growth when he left in late 2011. Growth is expected to be from

85 million currently to 250 million in 2014, with 40-45% growth in 2012. Currently, around 4 million of the revenue is from sales in Denmark. The organization has become a lot more structured due to its employees and has enhanced team spirit. HM emphasizes that Safecom should be willing to change and open to opportunities as an organization as the market is continuously changing. Safecom has tight pipeline management of customer opportunities, and it is twice the size in 2012 as it was in 2011. Sales data is also used to forecast, and software solutions is printers are expected to increase from 20% of sold printers to 50% of sold printers, and with Safecom's market share, HM expects large growth potential the next three years. Safecom focuses on committing to the financial, public, and health care sectors, which has been welcomed in the sectors.

Safecom should be as close to the end-customer as possible as fast as possible in the sales process and focuses a lot on getting the possibility to meet with the end-customer. Workshops with potential customers are extremely effective sales channels. Due to the technology of the product, it is important to have local employees, who have cultural and local market knowledge. Offices should be located in key markets and can then be used to branch out regionally. HM's network is used when hiring new country managers, who then work with his network to find employees locally, which also happened in Singapore. The country manager in France was found through LinkedIn. Country and regional managers have an overall budget and are responsible for the daily operations, which is what HM wants from them, though there is still frequent strategic communication across the organization.

In Germany and the UK, Safecom has established daughter companies and are currently establishing one in France as well with 100% ownership by Safecom. An office in the US has been put on hold due to organizational restructuring, but will be further looked into during 2012. Currently, Safecom has 3 employees in the US.

HM has previous international experience with technology sales, where he was technology expert who sold together with a salesman and later became responsible for selling the Safecom product in 1998, where the primary markets were the US and Asia, so he had no experience from European sales. HM has a limited network in Asia, which has not resulted in sales. However, in the US and Europe he has had a large network that has been used.

“if you have a technological background and an interest for sales, then it's a very good combination, particularly in a start-up company that deals with technology, because then you can make it on your own a long way down the road”

## **Brynhild Vinskei, Xstream**

Xstream is currently established in Norway, Sweden, and Poland while the headquarter remains in Denmark. The biggest customers are in Norway. In spite of this, there is currently investigations into closing the Oslo and Stockholm offices and maintain all Nordic operations

from Copenhagen. The plans are not final, and the decisions have not been made yet. Many customers are media groups (conglomerates), and since these have international contacts, especially with their sister organizations in Scandinavia, Xstream sold to Norwegians and Swedes since their early days.

The CEO of Xstream, who founded the company, did not have a network in that industry beforehand.

About 80% of revenue comes from customers that are not Danish, and the industry as a whole aims for global growth, and not so much national markets. Also, the Danish market isn't particularly large. The product is flexible, and can be used by large media groups for content delivery, and so there is no reason to restrict sales to any particular countries.

Xstream sees its industry being at a significant stage, with a general breakthrough into mainstream media in 2012 and 2013. This notion is based on the buzz in industry fora, and is a general sentiment.

The Polish subsidiary is a result of the Vitus program. Poland was chosen based on a judgment of the competitive situation. While Germany also was considered, this market sees much heavier competition and would require more work and resources to enter successfully. In Poland, there are fewer competitors and is seen as a place with more possibilities. Also, Warsaw is central in Eastern Europe and is expected to function as a stepping stone for going forward into neighbor countries.

In spite of Xstream's product functioning largely independent of location and geographic boundaries, the company prefers having a local presence in the markets they target. This is because trust is an important component of maintaining the ongoing relationship that is at the foundation of Xstream's product. The service they provide is delivered on a continuous basis, and only for as long as their customers want to stay around. The sales process requires many meetings, and it would be very expensive to constantly travelling abroad for them. Finally, Xstream finds it valuable to be able to call themselves a "global" company.

The entry into the Polish market was preceded by an investigation of potential markets. It was the partners from the Vitus program who suggested Poland as an alternative to Germany. Brynhild Vinskei and Frank Thorup (CEO) then travelled to Warsaw for meetings with several potential local partners that had been found by the Danish Trade Council in Poland. Also, Xstream had looked for contacts in their network on LinkedIn. The purpose was also to see if there were potential clients that would justify an entry. As this was the case, it was decided to venture on and Xstream hired a local country manager to bring in customers. At the initial stages, Xstream in Poland operated without local partners but recently some have been added. These are partners that also operate internationally, and are thus not limited to that market.

At this point, there are 20 employees in the Warsaw office. Another reason for choosing Poland is that there is better access to qualified IT developers at lower cost than in Denmark. The country manager runs the office rather autonomously, but the CTO and COO in Denmark maintain control and responsibility. Also, there is daily cooperation between Danish and Polish developers.

Xstream's CEO has international experience from Unilever marketing, and Brynhild Vinskei has experience from European organizations. However, there has not been directly transferable experience. Instead, there has been openness to do things in different ways, and being flexible along the way.

These two persons have been primary in the internationalization process, and the only ones really involved in it. Recently, a sales director has been hired to help out.

The next market that Xstream might target is Canada, where they soon will explore opportunities in more detail. This is partly because Xstream wants to be a global company, and partly because Canada bears resemblance to countries in northern Europe.

Leads in Poland are generated primarily through the industry, i.e. trade fairs and conferences. Also, Telenor is a huge customer in Scandinavia, and one of the world's largest telecommunications companies. It is expected that the international rollout of this service will grant new market opportunities since references and reference customers are important in the industry.

Brynhild Vinskei acknowledges that it is difficult to manage all the different opportunities in the international market. The way they cope with it is to focus on special solutions, OTT (over the top content delivery) that appeal to a narrower segment of customers that are very large telcos which can bring in substantial revenue but also require a lot of work. This allows for openness and flexibility when acquiring new customers, that can be in countries outside the normal scope of Xstream.

Time and resource constraints are the prime limitation of Xstream's international expansion. Since the market is changing rapidly, it is difficult and thus risky to identify what countries to enter with a permanent local presence. Therefore, the process also relies on where most new customers are coming. For example, if two new customers are found in the Middle East, it would be feasible to open an office there, but that is hard to see in advance.

Norwegian customers are very advanced, and have thus served as lead users that demand the latest features and technical developments from early on.

Xstream has tried to integrate the new employees in Poland by inviting them to work in the Copenhagen office and work for three months at the outset of their employment.

The sales process is divided between following up on leads that contact Xstream (or by using Google Analytics as a tell-tale) and by pursuing customers in segments of strategic interests.

The latter would currently be the OTT segment. The former is more of a historical or path-dependent method, where the latter is what has later been identified as the way ahead for future growth.

The market for streaming media is not easily indexed because new ones constantly are joining.

Xstream's customers are large software companies like Cisco and Accenture that provide solutions more standardized and typically more expensive, but that they have the advantage of well-known and respected brands. Xstream, on the other hand, delivers a more flexible and integrated solution at a lower cost, according to Brynhild Vinskei.

Market opportunities are rarely publicly known in advance. Instead, Xstream needs to contact potential customers and present their solutions.

Within the industry, people do know each other. This is particularly the case in Norway. There is collaboration among competitors and businesses that produce specialized solutions within similar categories, but with different requirements and presentations. Case in point: Content delivery on iOS, where an independent developer produces the application and Xstream delivers the media stream.