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# ORGANISATIONAL LEARNING AND KNOWLEDGE ACQUISITION

## A case study of internationalising manufacturers of wood-based prefabricated buildings

Master´s Thesis
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# 1 INTRODUCTION

## 1.1 Internationalisation opportunities and challenges for manufacturers of wood-based prefabricated buildings

Geographic expansion is an essential opportunity for the growth and value creation of a firm. However, a foreign expansion strategy implies many particular challenges additionally to the ones which are related to the growth of small- and medium-sized companies on the home market. The knowledge and capabilities which were acquired for the business on the initial markets are often not appropriate for new markets (Lu & Beamish 2001, 566), hence learning and knowledge accumulation are central aspects in the course of internationalisation (Eriksson et al. 2000, 28). In this thesis organisational learning and knowledge acquisition in the internationalisation process of manufacturers of wood-based prefabricated buildings are investigated.

This group was chosen as example of entrepreneurial manufacturing-based companies, because it faces substantial challenges on its internationalisation path for various reasons. Even though successful examples of a large-scale commercialisation and also export business in earlier times exist, producers of wood-based prefabricated buildings traditionally have a strong manufacturing and engineering background and have operated predominantly on national markets. This seems to be standing to reason since the nature of the business, which is mostly concerned with constructing single-family houses imposes several challenges to internationalisation. Firstly, these companies traditionally started as small handicraft firms. Consequently, the education, training and the staff's experience in the field mainly concerns the home market. The branch is in general determined by small and medium-sized enterprises (SMEs) and not by corporations, which poses major challenges for these companies in their international expansion (Murhammer, telephone interview 2011). On the other hand, building customs and styles, customer preferences and building regulations are fairly location specific and often differ even within the same country. Technical matters are not a major challenge, once the product confirms with the technical admission in a country. Other challenges concern, for example, differences in the legal situation, language barriers or different mindsets (Murhammer, telephone interview 2011). Moreover, the houses need to be shipped and assembled at the construction site. For the final assembly, it is necessary that at least a part of the personnel speaks the local language (Gruber, interview 2011), which means the companies need to acquire knowledge concerning local regulation and market specifics, get access to sales channels abroad and thereby deal with differences concerning culture and languages.

Nevertheless, there is an increasing number of companies, which are sometimes also engaged in other construction-related business that underwent a fast growth process and successfully expanded their operations abroad. Wolf System, founded in 1966, began its foreign expansion process in 1968, and today it has 20 companies in 15 countries with 2500 employees in different construction businesses (Wolf System 2011c). The Elk Fertighaus AG, which started with its own production of prefabricated houses in 1979, is the market leader in Austria and also a major owner of the German Bien-Zenker AG. Today, Elk has licence partners in 20 countries and the whole group has companies in six countries (Elk-Fertighaus AG 2011b; Elk-Fertighaus AG 2011a; Elk International Export & Licence Division 2011a). One of the rare examples of the listed companies in this field is the Finnish producer Honkarakenne, which is specialized in log houses. It was founded in the 1950s and started to export to Japan in the early 1970s. In 1987, Honkarakenne was listed on the Helsinki Stock Exchange, and in the 1990s it established subsidiaries in Japan, Germany and France (Honkarakenne Oyj 2010). Moreover, the company has partners in over 30 countries and in more than the half of its turnover comes from international business (Honkarakenne Oyj 2011b; Honkarakenne Oyj 2011d).

It will be investigated how these companies overcame the above mentioned challenges and managed to successfully expand abroad through effective organisational learning and knowledge acquisition. However, even though the case companies are wood-based building manufacturers, the implications of this study should not remain limited to this branch. In the theoretical part, issues of organisational learning and knowledge acquisition will be addressed with regard to the internationalisation process of entrepreneurial companies, therefore the conclusions should be to a certain extent applicable for other entrepreneurial manufacturing-based businesses which operate on diverse local markets with their particular regulations and requirements.

## 1.2 The role of knowledge in the internationalisation process of firms

Modern organisations consider knowledge more and more as the most important source of competitive advantage. Thereby, the advantage does not stem from existing knowledge but from the ability to continuously create new knowledge and include it in products and services (Seufert et al. 1999, 183). Hence, the knowledge-based view was developed, describing the creation and application of knowledge as main reason of the existence of firms (Bierly et al. 2000, 596).

In the last decades, the interest in organisational learning in general, especially under the perspective of internationalisation, has risen (Johanson & Vahlne 2009, 1415). The literature on the process of internationalisation is dominated by two research streams, the stage-based approach and the international new ventures approach. In both approaches knowledge constitutes an essential explanatory factor (Casillas et al. 2009, 318). In the internationalisation process view international growth is perceived as a knowledge development process, whereby the company extends its knowledge while operating abroad (Petersen et al., 2008, 1099-1100; Eriksson & Chetty 2003, 674). Similarly, Casillas et al. (2009, 311-312) define internationalisation as a learning process, in which the firm departs from differing levels of existing knowledge to build up new knowledge based on its experiences abroad. Consequently, the knowledge is absorbed, accumulated over time through particular organisation routines. Thereby, business knowledge affects the competitive situation and the customers in particular markets, whereas institutional knowledge refers to the governance structures as well as the rules, regulations, norms and values in these countries (Eriksson et al. 2000, 29). The results of Eriksson et al. (1997, 352) imply that building up internationalisation experience concerning business as well as institutional knowledge is not connected to particular foreign markets, but constitutes a firm specific experience which is applicable in several markets.

Many challenges a market entrant faces, evolve from a lack of knowledge how business is done in the foreign country. Thereby, some of the regulations, customs and procedures, also referred to as objective knowledge, are explicit and consequently relatively easy to understand, implement or transfer. (Petersen et al., 2008, 1099-1100; Eriksson & Chetty 2003, 674). However, on a more profound level, *'how the game is played'* is affected by values and central cultural assumptions of the foreign country (Petersen et al., 2008, 1100). Regarding specific relations within a network, knowledge is acquired through *'learning by doing'*; thus, it is tacit and consequently difficult to transfer (Eriksson & Chetty 2003, 676). However, internationalisation is not only an issue of learning about foreign markets and institutions. Knowledge must be also acquired about the internal resources of the firm, i.e., what the firm is able to do under unfamiliar and new circumstances. This way it can be proposed that when expanding abroad, what kind of structures and routines should the firm create that match with its internal resources and competences and that can direct the search for experiential knowledge concerning markets and institutions abroad. More general, companies have to create a cognitive framework outlining the relevance of foreign market knowledge (Eriksson et al. 1997, 353).

Performing international business requires experiential learning which originates from accrued experiences of specific relations. New information a company acquires in these relationships facilitates better understanding of its business partners abroad and

learning how to cooperate effectively (Eriksson & Chetty 2003, 674, 676). For instance, a number a studies showed that a company may gain knowledge from its customers, which can be utilised in subsequently internationalisation activities (Chetty & Campbell-Hunt 2003, 799). The higher the experience regarding cooperation and acquisition of information within these relationships, the more the firm will be capable of understanding the usefulness of this information as well as the degree of its lack of foreign market knowledge (Eriksson & Chetty 2003, 676). Various procedures through which companies can obtain the required knowledge and expertise are investigated in the internationalisation literature (Chetty & Campbell-Hunt 2003, 799).

## 1.3 Definitions

Following, the major concepts in this study, wood-based prefabricated building producers and entrepreneurial manufacturing-based companies, will be briefly defined. Entrepreneurship as such refers to '*the act of new entry'* to an existing or new market with new or existing products or services (Lumpkin & Dess 1996, 136). Entrepreneurial orientation describes a company's top management willingness to take calculated risks, to strive for innovativeness and act proactively in strategic issues (Zhao et al. 2011, 293; Nummela 2004, 142; Zuchella & Scabini 2007, 75). It is associated with processes, practices and decision-making activities for accomplishing a new entry. Innovativeness relates to a company's propensity to pursue and encourage new ideas, experimentation and creative activities for accomplishing new products, services or processes. Taking the initiative in order to 'shape the environment' by inducing trends and even creating demand relates to proactiveness (Lumpkin & Dess 1996, 136, 142, 147). Two other dimensions comprise competitive aggressiveness, as market entrants are confronted with existing market players, and the propensity to act autonomously. Several bureaucratic layers or organisational constraints are hindering activities for new entry. Therefore, autonomy refers to the ability and motivation to act self-determined in order to pursue opportunities. (Lumpkin & Dess 1996, 139-140).

Similarly, companies which extend their activities to various countries in order to create value show a mix of *'innovative, proactive and risk-seeking behaviour'*, which defines International Entrepreneurship (McDougall & Oviatt 2000, 903). The term refers to *international new ventures* or *born globals*, a phenomenon which received attention from the beginning of the 1990s when the phenomenon of rapidly internationalising companies was introduced into the literature (cf. Autio, Sapienza, et al. 2000; Knight & Cavusgil 2004; Oviatt & McDougall 1994; Zuchella & Scabini 2007, 6).

The companies in this study are innovative and proactive concerning product development and marketing. Four out of five case companies are active in quite many mar-

kets and they had periods with a high pace in their foreign expansion process. Another commonality is that the companies all emerged from family-owned businesses which were founded either in the late-1950s, 1960s or in the early-1980s. Hence, all these companies were SMEs not a long time ago, and two of themstill fall under the SME-definition of the European Commission[1]. Furthermore, all companies are privately owned except Honkarakenne, which is listed on the Helsinki Stock Exchange. Thus, the term 'entrepreneurial' in this study refers to companies which show typical entrepreneurial characteristics and which emerged from, or still are family-owned businesses.

In this study, producers of wood-based prefabricated buildings refer to companies which industrially prefabricate either whole building-elements based on a wood construction, or single wooden wall-, ceiling- or roof components. Consequently, in this study producers of prefabricated houses with a wooden structure as well as log house producers are included. Prefabricated houses are buildings for which the building elements, in general elements for the walls, but often also for ceilings and the roof, are prefabricated in a factory. Thus, the parts need to be only assembled at the construction site, while installations are already installed in the prefabrication phase (BDF e.V. 2011; Baulexikon - Hausbau.net 2011).

According to the current version of the statistical classification of economic activities in the European Community NACE Rev. 2[2] which is used by Eurostat, wood-based prefabricated buildings fall into section C *'manufacturing'*, class 16.23 '*manufacture of other builders' carpentry and joinery'* which refers to *'wooden goods intended to be used primarily in the construction industry'.* This contains, for example beams, rafters, roof struts, glue-laminated and metal connected, prefabricated wooden roof trusses, windows, doors, prefabricated buildings, or elements thereof, predominantly of wood, e.g. saunas or mobile homes (European Communities 2008; Statistik Austria 2011).

Prefabricated houses can be built from different construction materials; however, most houses have wood constructions. In Finland, 88% of the prefabricated houses were wooden constructions in 2008 (Pientaloteollisuus PTT ry. 2009). In Germany, about 96% of prefabricated houses had wood constructions in 2004. The houses were either prefabricated industrially (66%) or in carpentry companies (30%). The remaining 4% refer to solid constructions (Baukurier 2005). In Austria, about 84% of prefabricated houses are made of wood, 9% of light-weight concrete, 4% of brick-walls and the remaining 3% of combinations of these materials (ÖFV 2011a). The majority of the buildings constructed by the case companies were single-family houses. For instance, approximately 91% of the buildings which were constructed by member companies of the

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[1] max. 250 employees, 50 m EUR turnover; (European Commission, 2003)

[2] Nomenclature statistique des activités économiques dans la Communauté européenne

Austrian Premanufactured Building Association[3] were single-family houses. The rest includes semi-detached houses, terraced buildings or apartment buildings (ÖFV 2008).

The construction of log buildings refers to the horizontal stapling of natural or processed logs. The buildings are braced through saddle notches or scarf joints in the corners. These constructions are known in Europe since the Iron Age and have been applied especially in regions rich in forests such as Scandinavia, Russian, the Alpine Region or the Bavarian Forest (Baulexikon 2011). Regarding the log house companies in this study, even though also larger projects are conducted, the majority of their buildings are single-family houses or summer cottages (see 5.2.2 and 5.2.3).

## 1.4 Research gap, research question and contribution

Studies on the internationalisation process of firms revealed that experience and the increase of experiential knowledge are crucial factors for the explanation of a company's internationalisation activities. However, even though many researchers focused their interest on this topic, several issues such as learning mechanisms or the influence of certain factors on learning in the internationalisation process still lack a thorough research (Blomstermo & Sharma 2003, 16). Also, Eriksson et al. (1997, 352) constitute that more research is required on the nature of experiential knowledge, the mechanisms for its accumulation and its transfer across countries.

Even though it is often argued that social and organisational networks effect the knowledge acquisition in companies (Argote et al. 2003, 577; Casillas et al. 2009, 319), it is rather unknown how the process emerges, and what kind of knowledge is provided (Casillas et al. 2009, 319). For this reason, more research regarding how informal networks influence the knowledge management process would be beneficial, as it is suggested in Argote et al. (2003, 577). Also Lyles and Easterby-Smith (2003, 650) conclude that networks and learning capabilities are considered as essential issues for future research by experts. Furthermore, knowledge transfer has significant practical consequences for companies who want to transmit their knowledge about routines to subordinated business units, their alliance partners or other network members. Moreover, from a practical point of view it is essential if knowledge has been transmitted and what enabled the transmission.

From the perspective of dynamic capabilities, a company's international expansion and connected processes can be most simply recognised as progressive knowledge accumulation (Knudsen & Madsen 2002, 493). Also Jantunen et al. (2005, 238) constitute

[3] Österreichischer Fertighausverband (ÖFV)

that it would be beneficial to investigate the connection between entrepreneurial orientation and intangible assets, for instance, organisational learning capabilities or a company's performance under the perspective of a changing market environment. Moreover, the integration of these distinct parts would contribute to the theory development in the field. In conclusion, a company's dynamic capabilities as well as a strategic orientation combining proactive, innovative and risk-seeking behaviour are essential factors influencing its performance on international markets (Jantunen et al. 2005, 237-238). Zuchella and Scabini (2007, 20) propose the development of a dynamic perspective of international entrepreneurship, depicting it as a process over time, in which organisations learn from international experience, modify and rearrange routines and capabilities according to varying market conditions and the necessity to manage new opportunities globally. Consequently, this calls for more research on which resources, procedures and capabilities foster international entrepreneurial orientation in various institutions. Particularly, the creation of organizational capabilities which support the internationalisation process still lacks investigation (Zuchella & Scabini 2007, 20-21).

This study will investigate the internationalization process of wood-based prefabricated building producers, which started foreign business, and consequently increased their focus abroad in a stepwise but sometimes considerable fast growth process. The topics in the study comprise the creation of organisational learning capabilities, the acquisition and transfer of experiential knowledge in the internationalisation process and the role of networks under the perspective of international entrepreneurship. In order to account of the gradual but also sometimes quick internationalisation steps, the Uppsala process model and the international new venture perspective are both outlined and compared in order to identify the patterns of learning and knowledge generation which fit best with the cases.

The following research question and sub-questions will be addressed in this thesis:

- How do prefabricated house manufactures develop organisational learning capabilities, acquire and transfer knowledge for their internationalisation?
- SQ1) What are the challenges in the internationalisation process with regard to the acquisition and transfer of experiential and codified knowledge?
- SQ2) How do the companies overcome these challenges and develop learning capabilities in the course of their internationalisation?

The questions will be studied based on cases of wood-based prefabricated building producers located in Austria, Finland and Germany. Thereby, the focus is put on the challenges and the development of learning capabilities in general. The study does not include a detailed description of which practices were applied on a company level. On the one hand, this was avoided for confidentiality reasons and on the other hand it is not required for achieving the aim of the study.

Details on the case selection are given in chapter 4.2.1. The study will contribute to the theory of organisational learning including different perspectives of internationalisation, namely the process view of internationalisation, the international new venture perspective and the network theory. By investigating the creation of organisational learning capabilities, the study contributes to the knowledge-based view of the firm and in particular to the dynamic capabilities perspective.

In the empirical part in chapter 5, different ways will be outlined, which wood-based prefabricated building producers took to internationalise. Further, it will be described, how they acquired and transferred the required knowledge and developed their learning capabilities over time. This should be helpful not only for companies of the same branch with the intention to internationalise, but also for companies from other manufacturing based businesses.

## 1.5 Positioning of the study

This study, which is concerned with knowledge acquisition and organisational learning in the internationalisation process of wood-based building producers as example of manufacturing-based firms, is based on the theoretical framework of the knowledge-based conceptualisation of internationalisation. As integrative approach it combines the traditional internationalisation process as well as the international new venture perspective, based on their commonalities in the knowledge-based view of the firm, which include two different types of knowledge. On the one hand market-knowledge, which is from central importance in the Uppsala model and serves to coordinate resources which are dedicated to a foreign market. On the other hand, it comprises also the more technical knowledge, which plays a crucial role in the international new venture perspective (Prashantham 2005, 40). In the process-based as well as in the international new ventures approach, knowledge represents a main explanatory factor (Casillas et al. 2009, 318). Market specific knowledge is supposed to be mostly acquired through experience on foreign markets, whereas knowledge about business operations is better transferable between countries. Knowledge may be either objective or experiential; however, internationalising experiential knowledge is considered to be the most essential kind of knowledge (Madsen & Servais 1997, 569).

By linking the knowledge-based view as extension of the resource-based view to the internationalisation approach of firms, the study follows the findings of Tuppura et al. (2008, 474), who state that it is essential to match a company's resources, its strategic approaches and internationalisation behaviour. Moreover, by stressing a company's unique resources and capabilities, the resource-based view guides research on international entrepreneurship as underlying principle (Young et al. 2003, 32).

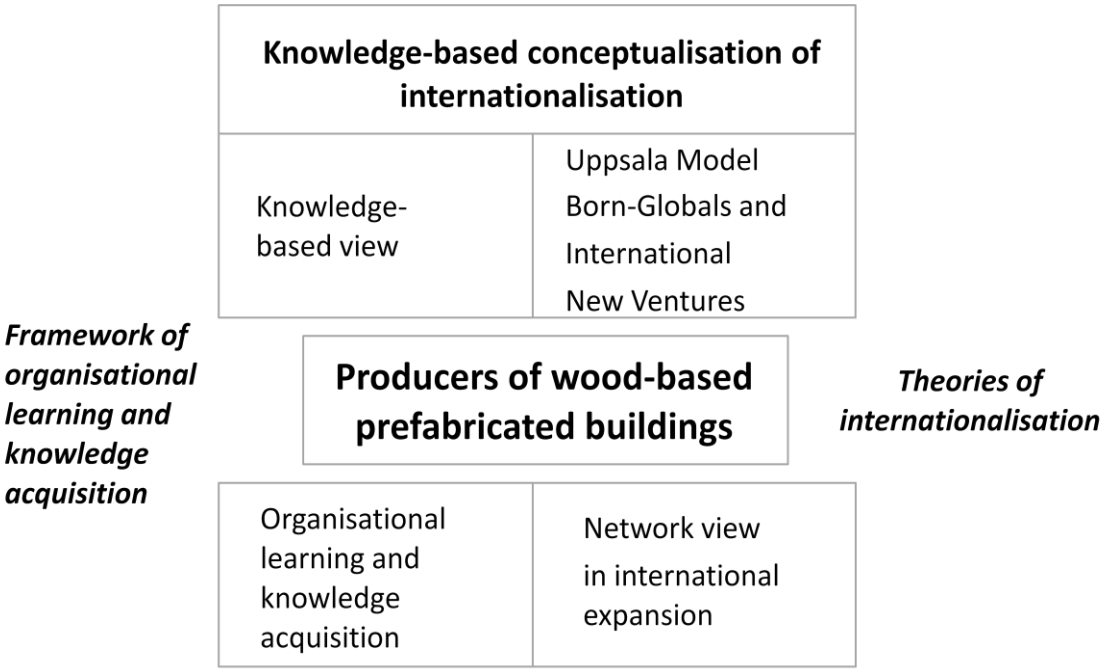


Figure 1 Theories and concepts in the study

Concerning foreign markets knowledge is often obtained through cooperation (Eriksson & Chetty 2003, 676). Moreover, learning through business relations is a particular facet of organisational learning. It has been demonstrated that the access to business networks offered the advantage of learning from other companies. Thereby, long-term business relations enable absorbing tacit knowledge from various members of the network (Forsgren 2002, 264). Therefore, the network view in international expansion is also considered in the study, which follows the findings of Madsen and Servais (1997, 571). They interpret the original Uppsala Model in a way that it needs to consider the network approach; hence issues, such as commitment, knowledge and current activities, cannot be studied only within the company, but need to be examined also in relation to other firms. The role of networks are also a central issue in the research on international entrepreneurship, since personal relations and interorganisational connections may support international new ventures which are confronted with a shortage of resources (Young et al. 2003, 33). Concluding, Chetty and Campbell-Hunt (2004, 64) state that in the traditional internationalisation approach as well as in the born global approach the role of business networks is highlighted. In order to provide a holistic view of the companies' learning process, topics as organisational learning, knowledge acquisition and transfer are also part of the theoretical framework of the study. An overview over the theories and concepts that will be covered is given in figure 1.

## 1.6 Structure of the study

This study comprises a literature review consisting of different theories of internationalisation in chapter 2 and a framework of organisational learning and knowledge acquisition in chapter 3. A thorough literature review is necessary at the beginning of a qualitative study to serve as guidance for developing the research questions and propositions. Thereby, the literature is used deductively by providing an introduction of the problem, illustrating the existing literature and contending a theory as an explanation for expected relationships (Creswell 2009, 27). A synopsis of chapter 2 and 3 including main issues of organisational learning and knowledge acquisition with regard to the central perspectives of certain internationalisation theories is given under 3.4. This serves as theoretical framework for the empirical part (see chapter 5). A description of the research approach, the process and an evaluation of the study is provided under chapter 4. The empirical part comprises a description of the development of this industry in 5.1 as well as a description of the case companies and their internationalisation process in 5.2. Subsequently, in chapter 5.3 a case analysis is conducted concerning the phenomenon of organisational learning and knowledge acquisition in the internationalisation process. Finally, in the conclusions the theoretical framework will be compared with the findings of the cases in 6.1, before managerial implications as well as limitations and a research outlook are outlined. The topics and findings of the study are summarised in chapter 7.

# 2 THEORIES OF INTERNATIONALISATION

## 2.1 Overview over different theories of internationalisation

Internationalisation refers to an activity on company-level in which the commitment in markets abroad is increased. This is influenced by occurrences such as rising market potential, easier access to world-wide markets, increased competition and a shortening of cycle times on international markets, which are linked to globalisation (Nummela 2004, 130-131).

A number of various theoretical concepts concerning growth processes of companies' international operations exist (Chetty & Campbell-Hunt 2003, 798). Approaches explaining the internationalisation of companies are frequently categorised in (one of) the following groups: the process or stages-model of internationalisation, the network theory and further resource-based, business-strategy-based and contingency perspectives such as the foreign direct investment theory or the transaction cost perspective (Tuppura et al. 2008, 474; Ibeh 2000, 439).

Process-based models have played an important role for understanding the dynamics in the internationalisation process of a firm (Eriksson et al. 1997, 337). Two traditional approaches are the Uppsala and the innovation model (U- and I-model), both termed as *stage models*, because they describe the internationalisation of a firm as a stepwise development (Chetty & Campbell-Hunt 2004, 59). Back in 1975, a model based on four different stages ranging from no conduction of export activities until the establishment of production facilities in a foreign country was proposed by Johanson and Wiedersheim-Paul (1975, 307). Several stages are passed through and the commitment at every stage is steadily increased (Chetty & Campbell-Hunt 2003, 798). The U- and I-model indicate both that the internationalisation of a firm is a slow and incremental process, characterised by the lack of knowledge about the markets abroad, risk-awareness and the perception of considerable uncertainty (Madsen & Servais 1997, 561). Thus, they can be considered as *behaviourally oriented models* (Andersen 1993, 212) in which experiential knowledge is a critical factor in the internationalisation process. As behavioural models of internationalisation, they are based on the theory of the growth of the firm and the behavioural theory of the firm (Eriksson et al. 1997, 340).

In innovation-related models internationalisation is described as an innovation for the firm as well as a method of learning (Brennan & Garvey 2009, 121-122). In these models export development is pictured in terms of an innovation adoption cycle or as a 'learning curve', which is affected by external and internal influences, such as unsolicited orders or ambitions from managers (Ibeh 2000, 440). With regard to studies about internationalisation processes of companies, Madsen and Servais (1997, 579-580) char-

acterise three different internationalisation patterns. One part of the companies follow an approach as described in the stages model, for instance, traditional exporters. Another group of firms leapfrog some stages from the incremental model:from being only a domestic seller they managed to engage in a foreign direct investment. The third group, identified as‘born globals',also described as international new ventures, global start-ups, high-technology start-ups or instant internationals, concerns small firms which venture abroad from their inception on (Zuchella & Scabini 2007, 108). However, the latter phenomenon is not restricted to high tech industries, but evolves in various markets comprising very different products (Madsen & Servais 1997, 580). A major difference between the U- and I-models and the born global or the international new venture perspective is the role of knowledge in the internationalisation process. In case of the stage models, knowledge is perceived as a barrier to internationalisation, since the acquisition of market knowledge or knowledge development as innovative process happens only gradually. On the other hand, for the born global phenomenon knowledge is a driving factor, as it is inherent in knowledge-based industries, and considerable investments in research and development are influential for an early and swift internationalisation (Brennan & Garvey 2009, 129-130; figure 2). Since the case companies followed in some cases a stepwise, but in other cases a considerable fast growth process, the Uppsala model, as a representative of a stage model and the phenomenon of international new ventures will be outlined as two seminal explanation models in more detail.

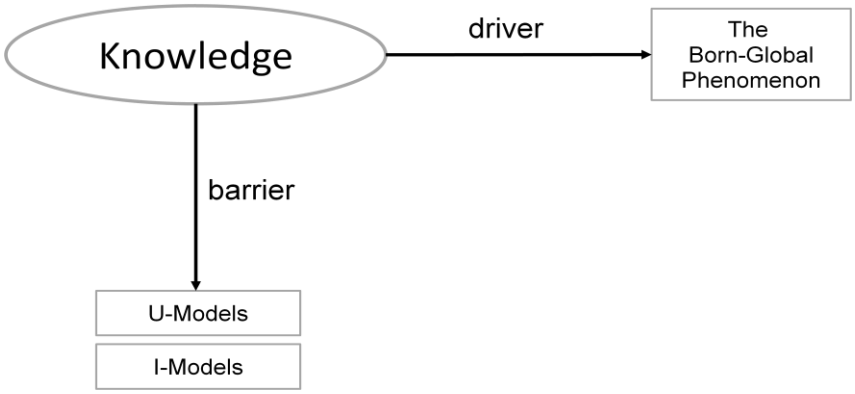


Figure 2 The role of knowledge in internationalisation (Brennan & Garvey 2009, 130)

The second explanation concept concerning *network theory* stems from industrial marketing and is concerned with network or relationship interaction. A system of various relationships between the company and customers, suppliers, competitors, and several stakeholders constitute the market in network theory (Ibeh 2000, 441). In the network perspective the importance of long-term connections between businesses, including personal ties, are highlighted, which were established on a certain market and are

supposed to influence the expansion of a firm's operations abroad (Petersen et al. 2003, 41). The reason is that firms in the business network not only serve as central source of information on foreign markets, but also as business opportunities (Eriksson and Chetty 2003, 676-677). This fact was also highlighted in the interviews with the case companies; hence, a more detailed description of the network perspective is given under 2.4.

A third stream of research refers to internationalisation from a *resource-based point of view*. Also, the *business strategy perspective*, the *contingency approach* and the concept of *international entrepreneurship* are comprised among this explanation approach. According to the resource-based perspective, several options, like the choice of the country of market, the market entry mode and product strategies are interrelated with a company's resources and capabilities. Companies will make their strategic decisions, based on their own different competencies, capabilities and competence gaps, which will consequently result in different options for growing and internationalisation (Ibeh 2000, 442).

A framework that describes internationalisation by means of six characteristics was developed by Welch and Luostarinen (1988, 39-43). The operation mode describes, how a company conducts business abroad, for instance, through agents, subsidiaries, etc. It also determines which sales objects are sold to which markets. Thus these three characteristics describe the kind of foreign activity, whereas the personnel of the company with its skills and experiences, finance and the organisational structure refer to the organisation's capabilities.

The choice of the market entry mode is also crucial, since it deals with the question whether knowledge is rather acquired and transferred internally, or by means of business partners. Thus the issue will be addressed theoretically in section 2.5, as well as in the empirical part.

## 2.2 The Uppsala Model

### *2.2.1 Explanation of the Uppsala Model and underlying assumptions*

The most common one of the stage models is the Uppsala model (Chetty & Campbell-Hunt 2003, 798). Johanson and Vahlne (1977, 23) introduced a model explaining the internationalisation process of an individual firm, emphasising the acquisition, integration and application of knowledge about markets and operations abroad, and the subsequently deepening commitment to these markets. The fundamental concept of the model is that a lack of knowledge about foreign markets and operations is an essential hindering factor for the growth of foreign operations, and this required knowledge is primarily

gathered via operations abroad. Thus, the *perceived risk* is determined by the firm's knowledge about the foreign market. The higher the knowledge about the market, the lower is the perceived risk, which consequently increases the predisposition to invest in a foreign country (Forsgren 2002, 271). The results of Johanson and Vahlne (1977, 24) are based on several empirical studies at the University of Uppsala which revealed that Swedish companies frequently established their international operations in small steps

The concept of *market commitment* in this model comprises the amount of resources that is dedicated to a market, as well as the degree of that commitment. The latter factor refers to the extent of how easily resources can be shifted between different markets (Eriksson et al. 1997, 340). The acquisition of market knowledge and commitment of resources is conducted stepwise in order to minimise risks and to control uncertainty (Chetty & Campbell-Hunt 2003, 798). Thereby, firms are able to learn from their mistakes instead of being destroyed by them (Autio et al. 2000, 919).

The Uppsala model presupposes certain characteristics of knowledge that is central for the firm's internationalisation process. First, the essential knowledge is market-specific; it describes the way how business is done in a particular foreign country. Further, the knowledge is based on experience; it is acquired through business activities in a foreign country through learning-by-doing (Petersen et al. 2003, 39-40). The company that aims at acquiring experiences abroad must deploy foreign operations. This involves presence abroad including contacts with customers, intermediaries and other companies (Eriksson et al. 1997, 342-343). Carriers of the knowledge are individuals who acquired it through personal experience. Lastly, since this knowledge is personally embedded in the individuals, it is difficult to transfer it throughout the organisation (Petersen et al. 2003, 39-40).

With regard to the sequential internationalisation process, knowledge has two essential influences. First, the existing knowledge base affects the selection of a particular market, since firms will start their expansion in physically or psychologically close countries in order to reduce uncertainty and perceived risk (Casillas et al. 2009, 312). Hereby, *psychic distance* refers to all factors that prevent the flow of information between certain markets, such as language, education, business practices, culture or the level of industrial development (Johanson & Vahlne 1977, 24). The higher the psychic distance between home and the foreign market is, the higher are the difficulties with regard to collecting and deciphering information accurately (Eriksson et al. 1997, 341). Secondly, the firm experiences a progression through certain *stages*, for example, first the firm conducts export operations, then a marketing subsidiary is established and finally a production line. Thereby, it extends its involvement in particular countries starting from its first operations. With regard to this *establishment chain,* country specific knowledge is essential (Casillas et al. 2009, 312; Eriksson et al. 1997, 341).

Knowledge consists of objective and experiential knowledge. Thereby, *objective knowledge* is obtained through standardised procedures, such as market research, and can be easily transmitted between countries and reproduced by other companies. A crucial assumption of the Uppsala model is that objective knowledge is less important in the foreign expansion process. On the contrary, *experiential knowledge*, which is seen as major stimulus of a company's internationalisation process, is gathered through current activities, or learning-by-doing. This is a costly process, since collecting, transmitting and deciphering knowledge is bound to particular situations, but it is essential for the performance (Eriksson et al. 1997, 340-343; Petersen et al. 2003, 41).

### *2.2.2 Criticism of the Uppsala Model*

Processual models have been firmly criticised. The majority of these models follow the life-cycle process theory. Influenced by certain impacts, a firm advances from one stage to the next one, whereby all companies are following a similar scheme. Therefore, these models are rather deterministic, whereby internationalisation is triggered by an external or internal impulse to the firm (Nummela 2004, 131-132). An essential characteristic of the original Uppsala model is the simplifying explanation of international expansion of companies (Petersen et al. 2003, 37). Critics stated that this stage model is too deterministic and that the market entry mode is chosen more selective and dependent on the context (Johanson & Mattsson 1988, 309).

At one hand, the minor role of decision-making is criticised. It is assumed that reduced uncertainty through an increased level of knowledge results in more resource commitment. Thereby, decision-making is hardly involved with regard to knowledge acquisition and transfer. Further, decision makers are in general considered as fairly risk averse in the Uppsala model. However, generally the willingness to take risks differs considerably. Moreover, it was not proven empirically that managers who direct the internationalisation of firms are risk averse (Petersen et al. 2003, 42-43). In addition, the possibility that the risk of not investing in a market is considered is not reflected in the model. Firms may decide to invest in foreign markets even though they have a considerable lack of market knowledge, because the risk of not investing is deemed as even higher (Forsgren 2002, 271). However, Johanson and Vahlne (1977, 23) concede that for the moment they did not consider the attitude of the decision maker himself, or in a sense the characteristics of several decision situations; thus, the predictive value of their model is restricted.

Further, the main role of knowledge in the Uppsala model has been challenged in various studies. For instance, other significant factors, which were observed, were the ratio of sales revenue by operating unit costs, the market potential and the industry

structure. Today, knowledge is considered as an important but not the only factor for the internationalisation activities of a company (Petersen et al. 2003, 37-39). Under changing market conditions, acquired market knowledge may become outdated and consequently the perceived risk level may rise again or will not decline as assumed (Forsgren 2002, 271).

Moreover, it is also observed that growth strategies of firms are deploying more direct and rapid market entry modes as it is implied by this theory. Studies also found that companies leapfrog stages, and do not deploy gradual steps, as proposed by the stages approach. However, the model fits better, when companies were 'early starters' on less internationalised foreign markets, like at the beginning of the twentieth century, but it is less valid when firms and markets are already internationalised to a high extent (Johanson & Mattsson 1988, 309-310; Chetty & Campbell-Hunt 2003, 799).

Another critique refers to the fact that the required knowledge is supposed to be acquired by the employees of the company. The possibility that individual employees or teams with the required knowledge are recruited, which is a central issue in the explanation of the born global phenomenon, is not considered. Companies may try to access the experience of others, for example by imitating firms that are deemed to be market leaders or apply 'follow-the-client' strategies. Taking these 'shortcuts' may be less efficient than learning from own experience; however, by doing so companies may access foreign markets quicker and through different methods than expected by the Uppsala model (Petersen et al. 2003, 43; Forsgren 2002, 271). Further, the Uppsala model does not particularly implicate the opportunity to convert experiential knowledge into objective one. The codification of knowledge alters elementary characteristics of the economies of knowledge creation and transfer. Codifying knowledge involves high initial fixed costs, but enables the knowledge transfer to be accomplished under very low marginal cost (Petersen et al. 2003, 43-45).

However, simplicity is an essential strength of the Uppsala model. Through a very limited number of variables the internationalisation process of various firms could be appropriately explained (Forsgren 2002, 270). Further, in total the model was strongly confirmed for accentuating the role of market experience and commitment (Brennan & Garvey 2009, 121).

## 2.3 Born Globals, International New Ventures and International Entrepreneurship

### *2.3.1 Emergence of the phenomenon and definitions*

Since the late 1980s, a rising phenomenon received attention in the popular business press that was concerned with companies which acted on an international scale from their foundation on (Oviatt & McDougall 1994, 46). These firms, which expand abroad early after their establishment despite a shortage in financial, human or tangible resources, are occasionally referred to as international new ventures or global start-ups. By being innovative, utilising knowledge and their competencies they are internationally successful early in their development. The often used term *born globals* refers to business organisations that strive for an outstanding international performance by applying knowledge-based resources and achieving sales in various countries from the time around their inception (Knight & Cavusgil 2004, 124).

The rising amount of new literature on 'born global firms' created a contrast to traditional approaches of the internationalisation of the firm (Bell et al. 2001, 173). This new kind of internationalisation process contradicts the description proposed by the stage models, in which the acquisition of market knowledge and the associated reduction of uncertainty happen over time in a gradual process from country to country (Madsen and Servais 1997, 561-562, 568). Many researchers subsume under *international entrepreneurship* the study of *international new ventures*, *born globals* or *global start-ups* (Young et al. 2003, 32). Following definition of entrepreneurial behaviour considers international activities in comparison with corresponding activities in the home country and also includes entrepreneurial behaviour from larger companies, often referred to as corporate entrepreneurship, by excluding the determinants firm age and size:

> *International entrepreneurship is a combination of innovative, proactive, and risk-seeking behavior that crosses national borders and is intended to create value in organizations. (McDougall & Oviatt 2000, 903).*

Reasons for the rise of born globals comprise changes in the market environment, technological advances concerning production, communication and transportation as well as the availability of highly qualified workforce. An increasing specialisation in various industries has led to a rising number of niche markets. Thus, even companies in large countries have to deliver specialised products and components internationally in order to dispose of a sufficient market size, for example, in the high-tech market. Due to changes in production technologies, the manufacturing of small lot sizes became economically viable, which enabled specialisation, customisation and thus, serving niche markets. On the other hand, global sourcing strategies and international company net-

works are creating a widespread demand of innovative products. Moreover, the requirements of buyers are getting more and more similar (Madsen & Servais 1997, 565-566).

However, the use of information and communication technology is neither an obligatory, nor an adequate prerequisite for the fast foreign expansion process of born globals. Although it has definitely a supporting role, it is as well applied by companies following a traditional internationalisation approach. Trade liberalisation may also have increased competition on the home market as a consequence. Thus, companies may consider export business as a more attractive alternative than constraining themselves to the highly competitive domestic market (Chetty & Campbell-Hunt 2004, 74, 58). Especially, SMEs in small, open economies pursue this kind of rapid internationalisation. They aim at small but focused global niches, in order to avoid the threat of having to compete in a market which is considerable constrained geographically as well as concerning their business activity (Bell et al. 2001, 176). As financial markets became more internationalised, entrepreneurs are today able to obtain financial resources globally. The number of people who could gain international experience, for instance, through studying abroad, rose significantly in the last decades. This led to improved communication skills and cross-cultural understanding and, consequently, to a decreasing influence of the psychic distance with regard to new target markets (Madsen & Servais 1997; 565-567, 569). This confirms the findings of Chetty and Campbell-Hunt (2004, 72), who found in a case study on 16 companies in New Zealand that the first internationalisation steps were done in related countries with regard psychic distance such as Australia, Canada, the United Kingdom, and the United States. However, as the companies continued, they quickly expanded to less related countries. Thus, the influence of psychic distance was only of very short duration.

Existing knowledge and experience reduce risks and uncertainty related to new markets abroad. Further, referring to the concept of absorptive capacity (Cohen and Levinthal 1990; see 3.3.5), born globals are better able to absorb additional knowledge in the internationalisation process (Chetty and Campbell-Hunt 2004, 62). Hence, companies may pass over certain steps in the internationalisation process that have been recognised in the past, thus the internationalisation process may not even follow a stage development any more (Oviatt and McDougall 1994, 52). In any case, the role of the founder of a born global firm is essential, since he/she needs to have particular entrepreneurial capabilities and the prudence to forecast business opportunities globally that competitors overlooked (Chetty and Campbell-Hunt 2004, 63). Besides the entrepreneur also the company culture has a supportive role for the internationalisation. In older firms learning impediments may arise which hinder an effective expansion in new markets. In contrast, newer firms are better able to acquire the necessary capabilities for a sustained foreign expansion promptly due to their relative flexibility. Further, it is possible that

through an early internationalisation an ‘entrepreneurial culture’ is created which is determined by proactiveness regarding the perception and realisation of market opportunities abroad (Autio et al. 2000, 919).

Another framework explains the emergence of international new ventures by combining elements elucidating the existence of the traditional multinational enterprise (MNE) and elements from entrepreneurship and strategic management. Transaction cost analysis; the existence of market imperfections and subsequently the internalisation of some transactions explain the occurrence of MNEs. With regard to international new ventures, entrepreneurs have to find ways to control essential resources without having ownership, and they also have to gain, and maintain competitive advantage over time. Thus, a framework for the sustainable existence of an international new venture comprises four elements. First, economic transactions that are inefficiently controlled through market prices are *internalised* by an organisation. Secondly, as new ventures normally lack the required resources to own essential assets, they have to apply *alternative governance structures* to control them. Thirdly, for being an international firm, the company has to use some kind of resource or opportunity abroad, in other words some *foreign location advantage*. Thereby, for overcoming trade barriers or lack of knowledge concerning language, laws and business practices traditional MNEs may benefit from their size, whereas new ventures can utilise their knowledge which is easily transferable, once it is acquired. For example, they can create software which to be used in factories abroad (Oviatt & McDougall 1994, 53-56). Fourthly, in order to establish an international new venture sustainably, its resources have to be *imperfectly imitable* (Barney 1991, 107; Oviatt & McDougall 1994, 56). As knowledge is to some degree a public good, and as such, it can be easily transferred and reproduced for marginal cost, international new ventures have to find ways to prevent the expropriation of commercially valuable knowledge. This may be achieved through patents, copyrights, trade secrets, licensing contracts or network governance structures. As patents and copyrights are frequently infringed in some countries, secrecy is often the most efficient way to protect his knowledge. In networks, such as alliances with partner organisations, the sharing of rents and relationships within the network may control for economic opportunism (Oviatt & McDougall 1994, 56).

Madsen and Servais (1997) emphasise that it is important to trace the history of born globals beyond their formal establishment. The assumption of the Uppsala model that a firm pursues to achieve long-term growth at a low risk level may be considered as still valid. However, the founders of born globals may have gathered considerable international experience, market knowledge and networks from their prior work experience. Therefore, the decision for internationalisation does not need to be gradual and slow. Also, the level of market commitment might be rather moderate in case the country specificity of market knowledge is low, and sales and marketing channels are available.

Thus, the processes and underlying propositions for the internationalisation of born globals are not considerably different from the stages model. However, as basis for their gradual extension of business activities may not serve their geographical home market, but certain competences in a particular industry as, for example, their technology. Therefore, an evolutionary approach can provide an useful explanation for the internationalisation of born globals, wherein learning might be more associated with production processes, specialisation or interaction procedures, starting from certain core routines and capabilities as the company's 'genes' (Madsen & Servais 1997, 569-574).

There is considerable vagueness in the literature, in the operationalisation of born globals or international new ventures when it comes to the point in time of the internationalisation or to the extent of foreign activities (Chetty & Campbell-Hunt 2004, 65; Hurmerinta-Peltomäki 2004, 73). The operational definition refers to the achievement of foreign sales in the phase of start-up, when the company is at the 'new venture' phase in its life cycle. In practical research, companies were often considered as new ventures when they were six years or younger, in some cases eight years or younger. The threshold of six years is considered to be essential for the survival of new companies (McDougall et al. 2003, 69). Further, also the share of sales that needs to be exported to be considered as born global is not unequivocally determined. However, this variety implies that the definition of born global is more a matter of rough estimation than of an universal absolute (Chetty & Campbell-Hunt 2004, 65).

### *2.3.2 The role of strategy in the Born Global concept*

In contrast to the Uppsala model, which has been criticised for being for the minor role of decision making (see 2.2.2), in the born global approach the role of strategy is influential. The speed, as well as the direction of the internationalisation activities, is determined by the objective to obtain a prime position in a rising market or a market niche (Chetty & Campbell-Hunt 2004, 63). Thereby, the firm aims to benefit from first-mover advantages or to 'lock-in' new customers. Another reason relates to the exploitation of proprietary knowledge. Certain industry branches are determined by a fast technological change. Furthermore, it is often difficult to protect intellectual property or patents. Hence, companies need to optimally use the small windows of commercial opportunity and target global markets from the beginning on (Bell et al. 2001, 176).

One strategic alternative can be termed *'focus-and-grow' strategy*. Thereby, the company targets a particular market segment from a basically broader range of segments on the home market, and tries to grow globally by focusing its resources. Another strategic alternative can be called *'sow and reap' strategy*. Hereby, the firm tests various products as well as different markets, in order to select the most promising ones.

Thus, the internationalisation rate of a firm is coupled with the speed in which market experience can be acquired. This kind of experience-based learning is coherent with the traditional internationalisation approach. However, learning, as well as the underlying trial-and-error process, appears to happen much faster among born globals. Moreover, these firms also seem be more tolerant with regard to failure at the first trial (Chetty & Campbell-Hunt 2004, 74, 73).

Different conclusions were drawn from the focus on strategy in the born global concept. Rapid foreign expansion determined by a firm's strategy is not a novel occurrence as such, but to born globals it pertains from their inception on (Chetty & Campbell-Hunt 2004, 73). Another supposition states that the concept of 'born global' does not refer only to an organisational form, but it might be seen as a strategy that aims at raising the value of a company through foreign expansion (Bell et al. 2001, 186).

### *2.3.3 Internationalisation patterns and categorisations of born globals*

Certain occurrences, like evolving opportunities in markets abroad, beneficial exchange rates or worsening economic conditions on the home market, may promote a rapid foreign expansion. In contrast, unfavourable conditions may engender a stronger focus on the home market. Hence, 'epochs' with a high pace in foreign growth may be succeeded by phases of consolidation. Therefore, the top management's experience, commitment and attitude towards international expansion are crucial. The change of the owners or top managers also often leads to a change in the strategic orientation regarding internationalisation (Bell et al. 2001, 177, 186).

As stated in 2.3.1, there is no exact operationalisation of the born global concept available. However, in order to get a better practical idea on the phenomenon, certain categorisations in the literature on born globals or related concepts are briefly defined. Moreover, an example of incidents which led to a rapid internationalisation is given.

In a case study of Chetty and Campbell-Hunt (2004) the internationalisation history of 16 companies in New Zealand was determined and compared with the stage theory and the born global approach. Consequently, the firms were distinguished based on their market scope. *Regional firms* generate 80% of their sales in their home region, Australia and New Zealand, and less than ten percent in other countries. They start to export in a time range between 4 and 46 years after their foundation, which makes them a quite heterogeneous group. *Global firms* start their internationalisation also from a strong home market and market their products globally to up to 60 countries. Remarkably, their internationalisation began after 26 to 65 years after their inception. Conversely, *born global firms* have only a minor, or even none domestic market before they start their internationalisation. According to their own definition, the time span between the

foundation of the company and the first internationalisation steps amounted at maximum two years and 80% of their sales came from global markets. Regional and global firms had a strong position on their domestic markets before starting to internationalise, where they had proven the quality of their products and services. Even though for born globals, for which the domestic market was from minor importance in terms of sales (at maximum 10% of their revenue), it was also important to show presence on their home market for their international credibility. Both the traditional model and the born global model of internationalisation could be in part conformed. The early phase of foreign expansion can be subsumed in the regional firm category and largely confirms the traditional model. On the contrary, in a later phase in which companies aim achieving global reach, the pattern confirms largely the born global concept (Chetty & Campbell-Hunt 2004, 68-69, 71, 77).

In the study, the period of rapid growth is referred to as the *'the gusher'* (Chetty & Campbell-Hunt 2004, 64). This is the time span of three to four years in which sales is doubled every year. Thus, the international scope of the company increases dramatically. However, this involves considerable risks. A strong increase in workforce brings challenges to the company culture, as in smaller companies are often determined by strong internal relations, based on common knowledge and mutual trust. Newcomers are frequently unaware of established norms and the underlying beliefs. A lot of training is required and quality problems which may arise with the extension of the operations can threaten the firm's reputation (Chetty & Campbell-Hunt 2003, 806-807).

*'Rapid internationalisers'* may be categorised according to three different dimensions: the time span between the firm's inception and the internationalisation, the international outlook or scope and the firm size. Thus, according to a process perspective, rapid internationalisers can be subdivided into three different groups, depending on the level of activities they perform within a short time after their creation. *Instant exporters* conduct export operations soon after their foundation, *international new ventures* achieve already a higher level of internationalisation and *born globals* can expand their activities globally (Hurmerinta-Peltomäki 2004, 72).

In a study on the internationalisation of SMEs in the United Kingdom, Australia and New Zealand, about 30% of the companies did fit neither the stage- nor the born global models. They had internationalised very quickly, mostly between 2-5 years after the first step abroad. After this period almost two thirds of them exported over 50%. However, in the previous years of their history, they had not made attempts to internationalise. This internationalisation pattern was named as *born-again globals*. Reasons for the change in their company strategy were, amongst others, management buy-outs, whereby the new owners or managers had a greater international orientation. Some companies had in fact already stopped their operations or were in receivership. In other cases, the company was acquired by another firm, which resulted in a change of strategy. More-

over, the companies often obtained additional financial resources and got a better access to sales channels in new markets. In a few cases, a smaller, but more internationalised company was acquired, which promoted the internationalisation of the parent company. Some firms had to internationalise, because they had to recoup a large investment in an expensive technology, for which they had acquired the right of the distribution on certain markets. Furthermore, also certain forms of client followership happened. For example, a company followed its clients who expanded abroad to new overseas markets, or it is encouraged through new, already internationalised clients to venture abroad. In one case, an alliance with a client from the home country was formed for cooperation on foreign markets, in which the company could provide its expert knowledge. Thus, it can be stated that many of these 'incidents' originated from the companies' networks (Bell et al. 20011, 177-184).

## 2.4 Network view in international expansion

According to the network approach, the industrial system consists of companies which conduct production, distribution and use of goods of services, whereby the network is composed by the firms' relations among each other. Due to the division of labour, the companies are dependent and need to coordinate their actions, which is achieved through interaction with other companies in the network. Companies in the network have direct relations to customers, distributors and suppliers and indirect relations with their suppliers' suppliers, etc. Individual business transactions usually happen within existing relationships. In order to expand in a new market or a new network, a company has to establish new relationships. Since important transactions require the business partners to be confident in their counterparts' willingness and ability to fulfil their obligations, it takes time and effort to establish appropriate levels of commitment. Therefore, and because established network positions enable the company to get access to external resources, these bonds can be regarded as intangible *'market assets'* (Johanson & Mattsson 1988, 290-292, 295).

The network perspective focuses on the market in general, the relationships, linkages and cooperation of the firm, and competition as a cause of information exchange and on the atmosphere under which transactions are conducted. Hence, this approach is better able to represent an international environment which is global, linked and interdependent (Fletcher 2008, 955). The interdependence of companies in networks is higher in more tightly structured networks and looser in ones with rather weak bonds (Johanson & Mattsson 1988, 294).

In the resource-based view (see 3.2.1) critical resources and capabilities are controlled by individual companies. However, according to the relational perspective, they

might spread out beyond a company's boundaries. Consequently, it is possible to achieve productivity gains in the value chain, if the business partners are willing to conduct relation specific investments and integrate their resources in a particular way (Dyer & Singh 1998, 660-661). Thus, the relational or network view also contradicts the principle of foreign direct investment theories, which postulates that firms use their firm specific advantages internally in order to counterbalance their disadvantages. Conversely, the most beneficial partnerships use complementary advantages for the good of both partners (Etemad & Wright 1999, 5-6). Network ties have a positive impact on the firm performance, since they support information gathering and knowledge development through social connections, which enables the company to take risks and quickly benefit from market opportunities on the home, as well as on foreign markets (Zhou et al. 2007, 685-686). The importance of company networks increases, whereas the role of traditional company boundaries decreases. Resulting from this development, knowledge creation and transfer must be handled rather within networks than in traditional organisational structures which is also termed *'knowledge networking'* (Seufert et al. 1999, 180, 184). Especially small firms with a restricted resource base quite often seek assistance from their network, particularly when expanding abroad (Nummela 2004, 144). International new ventures or born globals rely on their personal contacts or business contacts from their earlier work experience, due to their short company history. However, certain relationships will become particularly important for their development and long-term survival and constitute symbiotic systems (Zettinig & Benson-Rea 2008, 356).

In order to be able to obtain competitive advantages in alliances, partners need to go beyond unspecific arm's length relationships. Relationships which entail competitive advantages require investments in relation-specific assets, substantial knowledge exchange, the combination of complementary but scarce resources or capabilities or lower transaction costs than partnerships of competitors, due to more effective governance structures. Relation specific investments refer, for example, to specialised equipment or a dedicated plant. Due to the fix costs involved, these investments are more likely if there are appropriate safeguards to cover the payback period (Dyer & Singh 1998, 662, 664). Complementary resources may comprise assets, competencies or capabilities which are not promptly available in factor markets. These might be, for example, expert knowledge or intangible assets, such as the reputation of a firm on a local market. This way, partnerships enable companies to take advantage of time compression diseconomies and capabilities, which are subject to a company's history (Oliver 1997, 707).

In practice, companies can analyse these networks in which current and potential stakeholders are involved. Thereby, they can identify partners who can help to obtain an 'insider' position on a foreign market (Fletcher 2008, 963). Similarly, Etemad and Wright (1999, 6) suggest that if a company seeks to get a quick access to a market, it is

not necessary to develop the required market knowledge on its own, but it may take advantage of other, especially local, companies. Hence, it can accelerate the process by overcoming a lack of particular resources, liability of foreignness and avoid excessive risks or the commitment of scarce resources. The internationalisation of a firm according to the network model implies the development of relations with partners in foreign networks. These might be relations with companies in national networks which are new to the company, referred to as *international extension*. It also might be a further development of existing relations or further resource commitments which is termed *penetration*. A third option denotes an intensified coordination of positions in separate national networks, called *international integration* (Johanson and Mattsson 1988, 296). Leveraging an existing relationship in an established market in order to proceed to new markets is also called '*bridgehead' strategy*. For instance, a supplier can enlarge its operations in a customer's country by acquiring knowledge from the customer, as well as successively generate new knowledge. Knowledge gathered from distributors in one country can be used to further expand to other countries. Eventually, a company might have conducted a fast expansion process in various countries which it would not have entered on its own (Chetty and Campbell-Hunt 2003, 799, 811). However, also the opposite might be the case. Partnerships might also constrain firms in their strategic decisions and their attempts to venture abroad, as a strong reliance on network partners may restrain entrepreneurial behaviour, for example, if they hold complementary assets (Tuppura et al. 2008, 484-485).

Depending on the degree of internationalisation of the firm and the market, four different situations can be distinguished. If the company, as well as its competitors, suppliers and other companies of the branch on the domestic and foreign markets, have only a limited amount of international relationships, it is termed as *'early starter'*. A company which is a late entrant on an already international market is a *'late starter'*. If the company is highly internationalised in a rather non-internationalised environment, it is called *'lonely international'* and in case the company, as well as the market are internationally interwoven the company is referred to as an *'international among others'* (Johanson & Mattsson 1988, 298-306, see table 1).

Table 1 Internationalisation and the network model (Johanson & Mattsson 1988, 298)

| | | Degree of internationalisation of the market (production net) | |
|---|---|---|---|
| | | low | High |
| Degree of internationalisation of the firm | low | Early starter | Late starter |
| | high | Lonely international | International among others |

Resources for knowledge development and modifications to the foreign partner play a significant role in the early starter situation. In empirical studies it was observed that companies deployed agents, rather than subsidiaries, which might be due to the fact that thereby the demand for knowledge development and adjustments can be minimised and the established market positions of the other company can be utilised, which implicates lower investments and lower risks. Conversely, the investment in a Greenfield project or an acquisition might improve the potential for knowledge development and market penetration. Companies that are internationalised earlier than their competitors may benefit from their market assets especially in tightly structured networks. For late starters the company size plays probably an essential role, particularly because close markets might be already occupied by competitors and new positions might be more difficult to create. Small firms might be able to become a niche player in a market, whereas this option is more difficult to accomplish for larger companies. They might establish joint-ventures or acquire another company which is associated with higher risks. In internationalised markets, international companies can benefit from existing relations regarding the market extension as well as market penetration (Johanson & Mattsson 1988, 298-304).

Finally, it can be said that the network perspective contributes to the research on internationalisation, as it puts forward that the environment influences a firm's internationalisation, since a network offers several linkages which can be utilised in various manners. Thus, by effectively utilising a network, SMEs are supported in their internationalisation (Nummela 2004, 138-139). However, this should apply for companies particularly for entrepreneurial firms, which are subject of this study.

## 2.5 Market entry modes

An international market entry mode refers to an institutional arrangement which enables the access of a company's products, technology, know-how, management or other resources to another country (Root 1994, 5). For a swift internationalisation, the choice of the entry mode is essential (Chetty & Campbell-Hunt 2003, 64). Different market entry modes vary in the required resource commitment, the risks involved, as well as the level of control and profits. Principally, entry modes can be subdivided into ones which involve equity investment and ones which do not. *Equity modes* comprise wholly owned operations and joint-ventures including equity, while *non-equity modes* refer to contractual agreements and export. Managers might apply a hierarchical decision process for the selection of an appropriate market entry mode. First they decide whether to use an equity or a non-equity option, later on the particular entry mode is selected. Thereby, factors which influence the decision on the two levels may differ (Pan & Tse 2000, 535-536, 539, 547).

According to one explanation approach for the internationalisation of companies, the Uppsala model, foreign expansion is risky for companies due to political, cultural and market differences. To minimise risk, companies gradually increase their commitment in foreign business activities (see chapter 2.2). Hence, at the beginning, they engage in low commitment modes, such as exporting (Johanson & Vahlne 1977, 24; Pan & Tse 2000, 536). Table 2 shows a model of market entry modes at four different stages, which are determined by an increase in commitment, as well as the integration or the control over resources (Johanson & Wiedersheim-Paul 1975, 307; Blomstermo & Sharma 2003, 25).

Table 2 Characteristics of firms entering foreign markets (Blomstermo & Sharma 2003, 25)

| ***Entry mode*** | ***Form*** | ***Integration/Control*** | ***Commitment*** |
|---|---|---|---|
| 1. Wholly-owned subsidiary | subsidiary | high | high |
| 2. Partly-owned subsidiary | minority/majority ownership, affiliates, etc. | high/moderate | high/moderate |
| 3. Contract, alliances | relationship | moderate | low |
| 4. Market | exports | low | low |

However, also *exporting* may differ in commitment and knowledge in international operations. A broad distinction can be made between direct and indirect exporting. *Indirect exporting* involves the sharing of a considerable part of the profits with interna-

tional trade intermediaries. With the exception of the engagement of export management companies, it also limits the company's possibility to pursue its own market entry strategy, as well as the possibility to get feedback from the market. However, it has the advantage of low start-up costs and a low risk level, as it does not require investments in fixed capital. On the contrary, *direct exporting* implies higher risks and returns, it concentrates the marketing effort on the manufacturer's products, generally allowing a higher level of control regarding marketing (pricing, distribution,...), as well as a better protection of trademarks, goodwill or other intellectual property (Majocchi & Zucchella 2003, 253; Root 1994, 53, 57). Compared to other market entry modes, exporting has the advantage that shipping a ready product makes the transfer of the capability to manufacture the product redundant. This is especially from importance, in case it is difficult or sometimes even impossible to transfer, for example, tacit knowledge with other market entry options such as licensing (Luo 2000, 368).

Equity modes or a *foreign direct investment (FDI)* imply ownership and therefore also having the control of operations. More precisely, a traditional FDI is deployed by MNEs to transfer a multifaceted combination of assets, such as capital, patented and unpatented knowledge, management know-how and market access through local facilities which are under ownership control to a foreign country (Hennart 1989, 211-212). With regard to construction business, Chen (2008, 304) defines a market entry as permanent, if equity or ownership is involved, a strategic commitment to the market for a long-term expansion is made and supporting activities are involved, for example in a branch office or a joint venture company. Thus, the presence in the market including business development and other supporting activities would be maintained also if the business suffers a decline. High costs for adaptation, supervising performance and protection against opportunistic behaviour make the application of entry modes with a high level of control, such as a wholly owned subsidiary or a majority stake in a joint venture advisable. Especially, if the company's resources are information intensive, tacit and organisationally embedded, *internalisation* might be preferred. More hierarchical entry modes also increase the company's potential to obtain higher payoffs from the use of its capabilities in a new country. Whether a *wholly owned subsidiary* or a majority stake in a joint venture should be chosen depends on the extent of the required local knowledge. For this purpose a *joint venture* is an advisable option (Luo 2000, 365-368). Thereby, control must be shared with venture partners, where the level of control is dependent on the ownership split and the number of partners. In general, a wholly owned subsidiary has the lowest risk of unwanted knowledge dissemination. On the other hand, this option involves a high commitment of resources, which would translate in high sunk costs, if the company withdraws from the market which limits the strategic flexibility of the option (Hill et al. 1990, 118-119).

All the individual functions of a wholly owned subsidiary can be *'unbundled'* and contracted through the market. For instance, technology can be licenced out, plants can be managed via contracts, financial capital can be obtained via bank loans and marketing services can be delegated via distribution contracts. Examples of *contractual agreements* comprise licensing, franchising, management contracts, turnkey projects, production-sharing contracts, and international subcontracting (Hennart 1989, 212).

Following, the terms licensing, franchising, entry via projects as different contractual options will be briefly outlined, since they are conducted by the case companies or were mentioned in the interviews as potential options. In case of *licensing*, a licensor grants the control over intangible assets, such as patents, trade secrets, a trade name or the company name for royalties, for example, in the form of a lump-sum fee or a per-unit payment as well as the compliance to the terms of the licensing contract. This has the advantage that the licencee carries the most of the costs of starting up the business and operating on the foreign market, whereas, the licensor has to take care for the training of the licencee and monitor the licencee's actions. Another central advantage of licensing is that thereby import restrictions such as tariffs or quotas can be avoided. On the other hand, licensing, or also a joint venture, bears a higher risk of the knowledge of the company being expropriated by the partner (Hill et al. 1990, 119; Root 1994, 85-86; Teece 1982, 51-52). *Franchising* is a variety of licensing under which a franchisor licences a business system and proprietary rights to a franchisee. The franchisee acts under the trade name of the franchisor and has to follow the policies and processes the franchisor has determined. This has the advantages that a market can be entered quickly, with a uniform marketing approach, low capital requirements and low political risks. But it bears the same risks as licensing; a franchisor's profits are limited, he lacks full control over the countries' operations, potential competitors are created, and governments may impose restrictions on franchise agreements (Root 1994, 109-110). Chen (2008, 304) terms contractual entries, such as sole venture projects, joint venture projects, local agents, BOT/PPP/PFI projects[4], in construction business as mobile entries. In case of these kinds of *projects*, also when they often last for long periods, the aim is to conduct one particular project, and not engage in local business development. Conducting business on contract bases requires usually lower resource commitment. Thus, in case of a market downturn the company could more likely withdraw from the market.

In a transaction cost or internalisation perspective the question of foreign market entry mode is primarily concerned with the exploitation of a firm's capabilities or the protection of the rent potential whereas the organisational capability perspective addresses also the development of capabilities. With regard to ownership, in matters when the

[4] BOT: build-operate-transfer; PPP: public private partnership; PFI: private finance initiative

company has a strong knowledge base and disposes over the necessary routines, internalisation will be preferred, since it involves only insignificant incremental costs. However, collaboration is useful when a firm lacks the required knowledge in critical areas and cannot be acquired within a reasonable time or amount of cost (Madhok 1997, 41-43).

In general, governance structures which can be applied in alliances can be subdivided into agreements which require third-party enforcement, such as legal contracts, and agreements which are self-enforcing. The latter one can be formal safeguards, for instance, investments or financial hostages or informal safeguards referring to goodwill or trust. The first measures, for example in the form of specialised investments, create an economic incentive to engage in joint value-creating activities with the alliance partner, whereas personal trust or reputation decreases transaction costs as a result of bargaining or monitoring. Hence, self-enforcing agreements involve lower transaction cost than governance structures which necessitate third-party enforcement, since these are more costly to write, oversee and enforce, besides promoting value co-creation (Dyer & Singh 1998, 669-670). Similarly, '*bilateral governance'* implies the use of '*obligational contracting'* which indicates that the parties are conscious of the high value of an amicable relationship which outweighs potential short-term gains. However, as transactions become more specific, internal knowledge transfer or internalisation tends to be the more efficient solution whereas '*obligational contracting'* may fail (Teece 1982, 52).

# 3 A FRAMEWORK OF ORGANISATIONAL LEARNING AND KNOWLEDGE ACQUISITION

## 3.1 Knowledge-based view of the firm

In the knowledge-based view, knowledge as most crucial and strategically important resource, which is especially difficult to transfer, is serving as key factor for explaining a company's existence (Grant 1996, 110-112). Firms exist as social communities that enable the integration of individual and social expertise in valuable products and services through learning, as well as organising principles which are not reducible to an individual level (Grant 1996, 112; Kogut & Zander 1992, 384; Luo 2000, 370). A firm's knowledge comprises the competences of individual members, as well as the organising rules for the coordination and structuring of the relations of individuals, groups and members of a branch's network. Through coordination of individual and functional capabilities a firm's capabilities are created (Zander & Kogut 1995, 77). The eventual target of a company's activities is long-term survival and growth. Therefore, a firm must adapt to its environment in order to maintain its competitiveness and innovativeness. This alignment is a main issue of strategic management. Through learning a company can utilise its own organisational understanding, as well as the interpretation of the environment and consequently evaluate potential strategic options (Fiol & Lyles 1985, 804).

Different types of knowledge such as explicit and tacit knowledge have different potentials for transfer and storing, which affects the suitability of organisational design and the location of decision making authorities (Grant 1996, 120). However, organisations are not only means to transfer knowledge, but also to create knowledge or to learn (Kogut & Zander 1992, 384). By strengthening its knowledge-related abilities, a company may improve its output as well as its capability to identify opportunities and absorb knowledge (Autio et al. 2000, 921). The knowledge and capability-based view broadens the resource-based view, since knowledge functions as the main source of new value creation, diverseness and competitive advantage (Felin & Hesterly 2007, 195).

Following this, related theories of the knowledge-based view will be outlined. First, the *resource-based view* is described, which puts and internal perspective on firms while serving as predecessor of a knowledge-based perspective. Afterwards, the concept of *dynamic capabilities* is introduced, which deals with organisational activities for the modification of operating routines through learning processes (Zollo & Winter 2002, 340).

## 3.2 Positioning the knowledge-based view within related theories

### *3.2.1 Resource-based view*

On the contrary to other views in strategic management, such as the concept of Porter's five forces in the 1980s, that pictures a company's success as being determined by competitive factors, the resource-based view puts emphasis on the internal factors in a company, such as its capabilities and assets, as being crucial for its success (cf. Porter 1980; Teece et al. 1997, 510-511). The idea of describing companies in terms of their resources dates back to Penrose (2003)[5], but was rarely seized in the literature (Wernerfelt 1984, 171).

Environmental models, which determine a company's position with the focus on industry competitors, have two shortcomings. Firstly, it is assumed that all companies have identical resources and similar strategies. Furthermore, inequalities between companies could not be maintained, since resources are considered to be highly mobile and can be easily obtained on factor markets. However, the resource-based view assumes that there is heterogeneity with respect to the key resources within an industry, and these resources are to a certain extent immobile (Barney 1991, 100-101). In order to provide a company with a sustainable competitive advantage, resources, which may include assets, capabilities, processes, information or knowledge, must be *valuable, rare, imperfectly imitable* and the firm must be organised accordingly, in order to utilize the full potential of its resources (Barney 1991, 101, 105-106; Barney 1995, 50).

A resource-based view might serve as basis for decision making in strategy formulation. For example, which resources should be a basis for a further diversification, which resources should be developed, to which markets and in which order should a firm diversify, or which companies are an attractive target for a merger or an acquisition? Herein, the possession of particular resources such as machine capacity, technological leadership or loyal customers, impedes the competitors to catch up, since these attractive resources must yet be acquired by other companies (Wernerfelt 1984, 172-174).

When applying the resource-based view to entrepreneurship, essential issues comprise the recognition of opportunities, as well as the founder's ability to acquire and organise resources in order to transform homogenous inputs in heterogeneous outputs, which are competitive market offerings (Alvarez & Busenitz 2001, 770-771). Referring to international business, international knowledge and experience constitute resources which are valuable, unique and difficult to replicate and thereby distinguish successful

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[5] First published as Penrose, E. (1959). The Theory of the Growth of the Firm. New York: John Wiley.

from unsuccessful companies in international markets. The resource-based view also enabled to specify crucial resources for entrepreneurs. They cannot afford to compete on tangible resources as, for example, MNEs. Hence, they are more dependent on intangible resources. Thereby, the social capital, which is included in relations and networks, for instance, with the managers of other companies or governmental officials, constitutes an intangible resource which is difficult to copy, and thus represents for a start-up company an important competitive advantage (Peng 2001, 817-818, 820).

### *3.2.2 Dynamic capabilities*

The concept of dynamic capabilities depicts a firm's competitive advantage as arising from particular processes, formed by the company's specific assets, also including knowledge and complementary assets and the company's past development. Thereby, the approach extends the resource-based view, as it states that accumulating and possibly defending valuable resources might not be enough to generate a sustainable competitive advantage. Companies must give quick response, perform production innovations quickly and flexibly; furthermore their management must be capable of coordinating and rearranging competences internally and externally. Consequently, this concept suggests that a main emphasis should be put on the company's internal capabilities and competencies, such as identifying new market opportunities and improving technical, organisational and managerial processes in order to adapt to environmental changes (Teece et al. 1997, 509, 515).

Eisenhardt & Martin (2000, 1107) define dynamic capabilities as *'... processes to integrate, reconfigure, gain and release resources—to match and even create market change'*. Further, dynamic capabilities are organizational and strategic routines to attain new resource arrangements in a changing market environment. A process for integrating resources is, for instance, product development or the formation of alliances (Eisenhardt & Martin 2000, 1107-1108).

Capabilities arise by integrating the knowledge of various specialists, and they are connected to the creation of organisational competences and routines (Knight & Cavusgil 2004, 126). The term '*dynamic'* particularly addresses the issues of environmental change and corresponding adjustment through the ability to renew competences (Teece et al. 1997, 515). Dynamic capabilities are structured and enduring. If a company reacts to a sequence of crises through creative but unconnected solutions, it is not executing a dynamic capability (Zollo & Winter 2002, 340). Examples of dynamic capabilities refer to strategic decision making or to the copying, transferring and recombining of resources, such as knowledge, capital or manufacturing assets. Hence, dynamic capabilities represent specific processes to cope with particular technological, interpersonal and

organisational tasks; thus, also ‘best practices’ among different companies can be identified (Eisenhardt & Martin 2000, 1107-1108). Also the creation of value by seizing entrepreneurial opportunities and acting proactively, as well as maintaining this value through efficient strategic management, pertain to the concept of dynamic capabilities (Jantunen et al. 2005, 226).

The importance of certain competences has been already discussed earlier. In the short run, the price-performance characteristic of a product is important for a company’s success. However, in the long run, offerings of companies converge to certain standards with regard to cost and quality worldwide, which diminishes the products’ significance as source of competitive advantage. Thus, ultimately, it is essential not only to produce at lower costs, but to generate competences that allow to quickly combine production knowledge and technologies company-wide, in order to enable single businesses to give a fast reaction to new opportunities (Prahalad & Hamel 1990, 81).

Zahra et al. (2006) developed a model which separates dynamic capabilities from substantive capabilities, their precursors and consequences (Figure 3). Dynamic capabilities originate in entrepreneurial activities, which refer to the identification and exploitation of opportunities. These activities influence the selection or resources and skills as well as they support organisational learning processes for acquiring external knowledge, which result in the generation of an organisation’s substantive capabilities and its knowledge base (Zahra et al. 2006, 925). Substantive or ‘ordinary’ capability refers to the ability to solve problems or achieve a certain outcome (e.g. product development) whereas the dynamic capability refers to ability ‘*to change or reconfigure existing substantive capabilities’*, for instance, the way in which product development is done (Zahra et al. 2006, 921). Additionally, Winter (2003, 992-993) introduced the concept of *‘ad hoc problem solving’*, which is characterised by not repetitious, routine and especially not highly structured actions, in order to cope with current external influences. In contrast, a dynamic capability implies a *‘patterned activity oriented to relatively specific objectives’* (Winter 2003, 992).

There is an interplay between the organisational knowledge base and its substantive capabilities: an organisation can do what it knows, but meanwhile what it does also has an effect on its knowledge. Both influence the creation of a dynamic capability, which is required to cope with changes in the environment, as well as determine a firm’s performance, which has ultimately an effect on the selection of entrepreneurial activities (Zahra et al. 2006, 921, 926; figure 3).

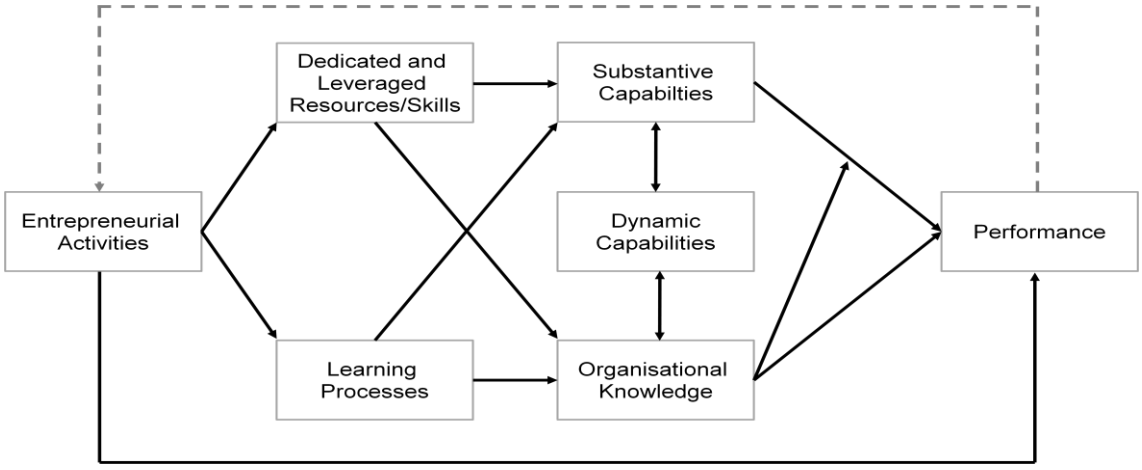


Figure 3 A stylized model of capability formation and performance (Zahra et al. 2006, 926)

However, the generation of dynamic capabilities does not automatically imply a better performance, since an unavoidable result of many trials to change the way things are done, are a certain amount of failures. Therefore, companies must be able to bear these errors and especially for new ventures a series of failures will trigger their ruin. But the mistakes can also serve as source for learning, and the creation of capabilities enables a company to take advantage of new resources or use existing ones in an alternative way. Thus, companies which strive for acquiring dynamic capabilities are less susceptible to be paralysed by maturity and stagnation, since they had allowed for strategic renewal, which also enlarges their number of options in the competitive environment (Zahra et al. 2006, 949-950). Furthermore, entrepreneurial behaviour in combination with processes facilitating organisational renewal may result in competitive advantage, especially in a changing environment (Jantunen et al. 2005, 223).

In order to successfully compete in new markets, other product categories or alternative ways of doing business, companies need to replicate or transfer and re-apply their capabilities in other organisational entities or business settings (Knight and Cavusgil 1996, 127). With regard to the role of dynamic capabilities in the internationalisation of MNEs, learning should constitute a central and visible element when expanding abroad, since *'... new knowledge development through internal or external learning provides the basis for organizational renewal and sustainable competitive advantages.'* (Luo 2000, 375). Hence, linking commitment to learning with a strong utilisation of capabilities increases the probability for a successful international expansion of a MNE (Luo 2000, 376). When studying export strategy from a dynamic capability perspective, a central issue seems to relate to the organisation of knowledge growth through the creation and termination of connections with international factor and buyer markets (Knudsen & Madsen 2002, 498). Generally, from an organisational capability perspective, the internationalisation of a firm is in effect a path dependent and incremental procedure,

whereby the process is dependent on a its past international experience (Madhok 1997, 43).

## 3.3 Organisational learning and knowledge creation

Every organisation that copes with a changing environmental setting should not only handle information efficiently, but also generate information and knowledge. Thus, as an important method for the explanation of an organisation's specific activities serves the analysis concerning its constitution and ability to handle information from its environment (Nonaka 1994, 14). In the following, a theoretical foundation of organisational learning and a classification of it are given. Afterwards, different types of organisational learning processes are presented. Subsequently, the conversion of tacit into explicit knowledge and vice versa, as means for organisational knowledge creation and the concept of absorptive capacity, is explained. Finally, the concepts of dominant logic and competency traps, including their risks concerning organisational learning, are illustrated.

### *3.3.1 Theoretical foundations of organisational learning*

Organisational learning aims at applying existing knowledge and integrating new knowledge into the knowledge base. Thereby, an organisation's competencies are enhanced and new ones acquired (Liu 2006, 145). It is not the same as individual learning, even though it only happens through individual activities and experiences (Argyris & Schön 1978, 9). Learning refers to a systematic change in behaviour or knowledge, influenced by experience. This description of learning refers to two different conceptions of organisational learning. According to *behavioural learning models*, learning occurs through a change in the combination of organisational routines and action schemes. In contrast, *cognitive learning models* stress changes in ideas, root-cause relations and cognition (Miner et al. 2001, 305). Referring to behavioural theories, organisational learning occurs by translating conclusions from history into routines that direct the behaviour. These *routines* comprise documents, rules, procedures, conventions, strategies and technologies of an organisation (Levitt & March 1988, 320). Routines include a relatively stable behavioural code, which is shared within an organisation and determine its potential actions, unless they are interrupted. Thus, they are important means of coordination in a dynamic environment (Knudsen & Madsen 2002, 488).

Organisational learning is therefore *history-dependent*. The behaviour of an organisation is rather guided by aligning procedures with situations, than by assessing options.

Thus, action is more influenced by what is considered as an appropriate solution, and less by logically determined alternatives. Consequently, past experience has a higher influence than anticipated future (Levitt & March 1988, 320). Similarly, a company's potential of future actions is determined by its knowledge that was gathered in a *path-dependent* process in its history. This characteristic of cumulative knowledge development is from high importance in the dynamic capabilities perspective (Knudsen & Madsen 2002, 486). Also, Teece (1982, 44) argues that *routinisation* of an activity is the most essential form of storing the operational experience of an organisation. Hence, routines serve as organisational memory, whereby experience in form of rules, processes, assumptions and culture, is preserved and accumulated over time despite of personal changes (Teece 1982, 44; Levitt & March 1988, 326). In order to apply organisational knowledge it is essential that the members know which routines need to be executed in particular situations (Teece 1982, 44). Further, organisational learning is *target-oriented*. The alternation of routines is based on the evaluation of past occurrences, especially with regard to intended targets (Levitt & March 1988, 320). Pure behavioural learning may only affect the routines of a company without altering shared mental models. Conversely, in cognitive learning reflection on shared mental models and assumptions could have taken place without affecting the current routines (Miner et al. 2001, 305).

However, *experience-based learning* implies structural difficulties. In contrast to experiments, it is difficult to draw causal inferences from real-life occurrences within organisational environments due to their complexity. Further, the experiences with regard to events which are complex and cause instability are often limited. Particularly in a rapidly changing environment, opportunities and risks occur, which are, taken by themselves, quite unlikely. Lastly, ordinary learning results in stable routines, and thereby limits the variations which are necessary for an effective learning process. These problems cannot be eliminated, but improved through introducing *variation* in the routines, and thereby reducing the susceptibility to local optima. *Organisational slack* may cause unintentional innovation. Other sources of experimentation may result from failures in the maintenance or the memory of routines or control failures. Also an imperfect socialisation of an organisational member and mistakes during the implementation or the execution of routines affect experimentation (Levitt & March 1988, 333-334).

Argyris and Schön (1978, 10) argue that human action and learning refers to knowing in the wider sense. Deliberate human action results from a cognitive basis, which is included in norms, strategies or assumptions about the environment claiming for general validity. Thus, human learning should not be comprehended as the amplification or the diminishment of behavioural patterns but as the creation, trial and rearrangement of particular knowledge. In general, deliberate human behaviour could be explained and predicted by a *theory of action*. The actual behaviour of someone is called *theory-in-*

*use*, whereas if he explains what he aims to do in a particular situation is his *espoused theory of action*. This might correspond with the theory-in-use or not. Norms, strategies and assumptions, for example, about the production process, distribution or marketing, are incorporated in a company's practices and constitute its theory of action about how certain procedures are conducted. In sum, these theories of individual activities signify a theory of action to accomplish corporate activities. Thereby, every member of an organisation creates his own image or representation of a company's theory-in-use. They constantly try to complete this image, adapt it when environmental conditions change and comprehend themselves and their own performance in the organisational context when they interact with others. Thus, it is the continuous intermingling and comparison of individual images in the interaction within the group which creates the organisations *theory-in-use* (Argyris & Schön 1978, 11, 14, 16).

### *3.3.2 Classification of organisational learning*

Organisational learning is discussed under different perspectives and dimensions. One distinction comprises four major types learning, from an individual perspective, a decision-support perspective, a management and organisational structure perspective and a corporate culture perspective (Drejer 2000, 211 see table 3)[6].

Table 3 Overview of approaches to learning (Drejer 2000, 211)

| | Individual dimension | Collective dimension |
|---|---|---|
| Formal dimension | Decision-support perspective | Management systems and organisational structure perspective |
| Informal dimension | Individual behaviour perspective | Corporate culture perspective |

The *individual behaviour perspective* observes the informal and unconscious behaviour of individual members of an organisation as well as their relations. The *decision support perspective* investigates the learning process of an individual under problem-solving situations involving the use of information technology and decision models. Collective learning influenced through organisational structures, management systems, formal

[6] Original Source: Neergaard, C. (1994), Creating a learning organisation. PhD thesis, Department of Production, Aalborg University.

management, operating and control processes, as well as reward schemes is addressed by *the management systems and organisational structure perspective*. The *corporate culture perspective* involves informal, social connections, collective routines and behavioural attitudes and models in an organisation. Thereby, corporate culture emerges from organisational learning processes and determines individual, as well as collective behaviour (Drejer 2000, 210). In this study a special focus is put on learning and knowledge acquisition from an organisational structure perspective. However, as in the literature often two or more of these perspectives are combined (Drejer 2000, 211), also in this study elements concerning corporate culture or individual behaviour, as well as preferences and opinions of individual managers, will play a role.

### *3.3.3 Different types of organisational learning*

Different types of organisational learning are distinguished in the literature. For instance, an organisation can learn through its own or from other's experience. Corresponding topics involve experimentation, trial-and-error learning, and refinement versus exploration, forgetting, knowledge sharing and knowledge generation. For example, *improvisational learning* involves particular problems and opportunities, as well as specific means or materials. It is connected to a particular place at a certain time. Further, knowledge creation is not the goal of improvisational activities; however, new insights may occur as ancillary results. The process is complete when the improvisational activity is conducted as such. This distinguishes it from *trial-and-error learning* where actions are conducted 'on-line', but the effects of activities are considered. Thereby, *behavioural trial-and-error* learning would imply that apparently successful activities might be simply repeated, whereas in *cognitive trial-and-error learning* based on the results new causal models or information would be developed. On the contrary, in *experimental learning* some kind of new knowledge was produced in controlled situations. Learning is conducted deliberately; it results from systematic experience, which is generated through the creation of differing situations (Miner et al. 2001, 305, 318-321).

Argyris and Schön (1978, 18) term a learning process in which organisational members react to environmental changes in a way that the organisational theory-in-use can be maintained as *single-loop learning*. This process involves a single-feedback loop that compares the outcomes of an activity with organisational strategies or assumptions. These might be modified in order to ensure that the organisational performance remains within certain limits given by an organisation's norms. The norms, for example, for quality standards or sales performance, are preserved. Thus, single-loop learning is predominantly concerned with how to achieve existing targets most effectively within a given framework (Argyris & Schön 1978, 18-19, 21). Similarly, learning within a given

organisational formation and existing rules refers to *lower-level learning*. This results in basic associations of activities and their consequences and is an outcome of replication and practice. It lasts only short time and is of minor impact (Fiol & Lyles 1985, 807).

On the contrary, *double-loop learning* involves changes in the internal and external environment as, for example, demand, competition, regulations, or the employees' attitudes and goals. This requires an organisational learning cycle in which organisational rules themselves are subject to change. Incompatibilities in the applied theory-in-use, such as conflicting goals concerning growth and predictability of the business, result in an interpersonal or intergroup conflict. The conflict as such needs to be recognised, and in order to resolve it organisational norms must be rearranged and most likely also strategies and assumptions need to be modified. Learning will not occur in every case. If the conflict is simply fought out between groups without leading to a change in the organisational theory in use, learning did not occur. However, learning will comprise a course of inquiry in which managers tackle and solve the conflict. This is named *double-loop learning*, because deviations of the actual performance concern not only a company's assumptions and strategies regarding effective performance, but also the underlying norms as such (Argyris & Schön 1978, 20-23). Nonaka (1994, 19) argues that double-loop learning is conducted every day as organisations restructure their perspectives, frameworks or underlying assumptions regularly.

Fiol and Lyles (1985, 808) conclude that perceptions which are derived from *higher-level learning* have longer lasting consequences on the whole organisation. This occurs through the utilisation of heuristics, the improvement of skills and understanding. Thus, this is a more cognitive process compared to lower level learning, which is closer related with repetitive behaviour. The intended outcome is normally not a specific behavioural pattern but refers rather to the creation of a novel cognitive framework for decision making. Double-loop learning refers to certain kinds of organisational inquiry that resolve the incompatibility between organisational norms by either setting new priorities, or by rearranging the norms in combination with the organisation's strategies and assumptions (Argyris & Schön 1978, 21-24). In short, single-loop learning refers to learning within a given framework and double-loop learning concerns learning by modifying the framework (Bierly et al. 2000, 598).

In *deutero-* or *second-order learning*, which can apply for single- or double-loop learning, a reflection on the previous learning experience takes place, for example, what promoted or prevented learning? Further, new learning strategies will be created. For instance, an organisation learns how to restructure itself from time to time in order to be able to take advantage of new technologies. This refers to double-loop learning. The concept of *organisational learning curves* is associated with deutero-learning. Learning curves in manufacturing concern the primarily learning with regard to effectiveness and do not involve the resolution of conflicting norms regarding performance. Thus, they

indicate single-loop learning (Argyris & Schön 1978, 26-28). In the end, *wisdom* refers to an action-oriented concept with the aim to apply organisational knowledge in the planning, decision making and implementation phase or more widely to the application of knowledge for setting and achieving goals (Bierly et al. 2000, 598, 601).

### *3.3.4 The conversion of tacit and explicit knowledge and organisational knowledge creation*

In a long prevailing paradigm of organisational theory, an organisation was conceptualised as a system for processing information or solving problems functioning based on an input-process-output mode, according to a hierarchical order. Thereby, *information* refers to a sequence of messages, whereas *knowledge* results from the total information flow and is subject to the dedication and confidence of the person holding it. However, this view represents a rather static and passive role of the organisation. Under changing conditions handling information efficiently is not sufficient for an actively acting organisation, it also needs to establish knowledge and information (Nonaka 1994, 14-15). In order to create organisational knowledge, it is necessary that individual knowledge is shared and distributed (Inkpen 1998, 226). For sharing know-how and information a regular communication within small groups is required, which is often achieved through establishing a common language or code. As common organisational and technical knowledge is shared within a group, knowledge transfer is accomplished. This kind of knowledge could concern the question how certain organisational activities need to be arranged or who is the carrier of a certain information within the organisation (Kogut & Zander 1992, 389). A large amount of this knowledge, which is generated within the firm, is firm specific. Most of the explicit knowledge and all of the tacit knowledge is hold by individuals. The main distinction between tacit and explicit knowledge relates to the different methods how they may be transmitted between people or across space and time, as well as the ease of the transfer (Grant 1996, 111). *Explicit knowledge* or *codified knowledge* indicates knowledge which is communicable through formal, systematic language (Nonaka 1994, 16)[7]. Thus, it can be transferred without difficulties and is disclosed through its transmission (Grant 1996, 111). This might refer to general market knowledge in country reports (Eriksson & Chetty 2003, 674). On the contrary, *tacit knowledge* is disclosed through its utilisation and indicates practical experience, for example, know-how or proficiency (Grant 1996, 111; Virtanen 2010). It is action-

[7] Cited from Polanyi, M. (1966). The Tacit Dimension, London: Routledge & Kegan Paul.

based and dependent on a particular context (Nonaka 1994, 16)[7]. The perception, intuition and beliefs of the holder of tacit knowledge are strongly connected with his experience (Levin & Cross 2004, 1481). Tacit knowledge results from experiential learning, its formalisation and transfer is rather difficult (Levin & Cross 2004, 1479; Nonaka 1994, 16; Zollo & Winter 2002, 341). In case it is not possible to be codified, its application is a precondition that it can be perceived and acquired. This is a slow and expensive process with an uncertain result (Grant 1996, 111). *Cognitive* and *technical elements* are both components of tacit knowledge. The former refer to mental models of persons comprising their perceptions of the reality and ideas about the future. The technical elements relate to specific knowledge and skills with regard to particular contexts (Nonaka 1994, 16). In table 4, tacit and explicit knowledge are distinguished according to certain characteristics. Tacit knowledge is created on the spot, in a particular, practical context and shared between individuals through analogue, simultaneous interaction. Conversely, explicit knowledge concerns past occasions or objects and requires no actual involvement (there and then). It is created in a sequence and aims at establishing a context-free theory (Nonaka & Takeuchi 1995, 60-61). In short, knowing how something is done relates to tacit knowledge, whereas the knowledge about facts and concepts refers to explicit knowledge (Grant 1996, 111).

Table 4 Distinctions between tacit and explicit knowledge (Nonaka & Takeuchi 1995, 61)

| ***Tacit knowledge (Subjective)*** | ***Explicit knowledge (Objective)*** |
|---|---|
| Knowledge of experience (body) | Knowledge of rationality (mind) |
| Simultaneous knowledge (here and now) | Sequential knowledge (there and then) |
| Analogue knowledge (practice) | Digital knowledge (theory) |

*Organisational knowledge creation* is constituted through an *epistemological dimension* and an *ontological dimension*. The former relates to the distinction between tacit and explicit knowledge, whereas the latter refers to the level of social interaction. Knowledge is basically created on an individual level. An organisation leverages the individually generated knowledge, and retains it as a component of its knowledge network. By combining the epistemological dimension and the ontological dimension, four different procedures can be distinguished, how tacit and explicit knowledge is converted, which follow each other according to a ‘spiral’ pattern (Nonaka 1994, 15-19; Nonaka & Takeuchi 1995, 70-73); figure 4)

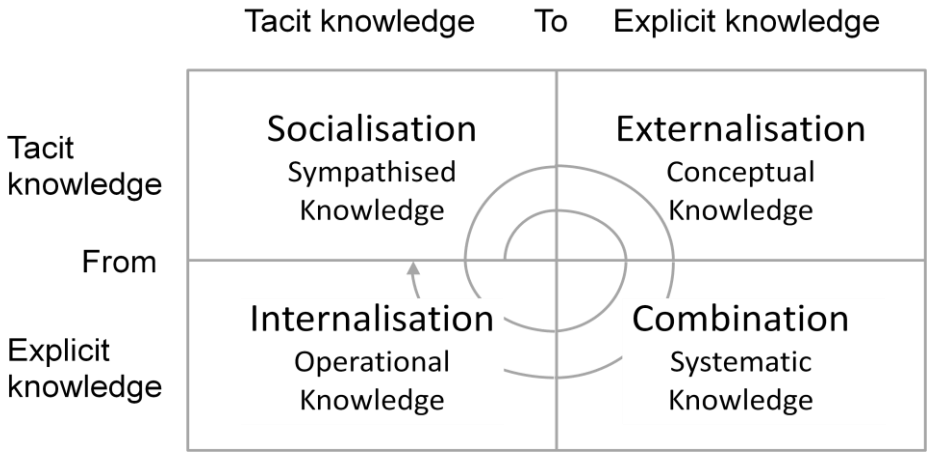


Figure 4 Modes of the knowledge creation (Nonaka & Takeuchi 1995, 71-72)

*Socialisation*, the first knowledge conversion mode, concerns the exchange of tacit knowledge between individuals. This can be achieved without the involvement on language. For example, an apprentice learns through observing, imitating and practicing his craftsmanship. The same principle applies to on-the-job training in business. The outcome of this process may be termed sympathised knowledge, which comprises shared mental models or technical skills. Experience is a key characteristic for acquiring tacit knowledge, whereby a certain extent of shared experience is essential in order to be able to understand each other's thoughts (Nonaka 1994, 19; Nonaka & Takeuchi 1995, 71).

*Externalisation* results in conceptual knowledge. The process refers to the verbalisation of tacit knowledge into explicit concepts through metaphors, analogies, concepts, models or hypotheses. These expressions are rarely perfect or complete. However, the differences facilitate reflection on the subject and communication between individuals. (Nonaka & Takeuchi 1995, 64, 71).

Through *combination* different fields of explicit knowledge are exchanged and combined, for instance through meetings, telephone conferences, the exchange of documents or the application of IT networks. By sorting or adding explicit knowledge, differentiating in into other categories or representing it in another context, new knowledge can be created. Formal education and training at schools, or completing an MBA degree are examples for this kind of knowledge creation. Combination creates systemic knowledge, for example a prototype or a new micro-merchandising program including different retail management method (Nonaka 1994, 19; Nonaka & Takeuchi 1995, 67, 71).

*Internalisation* relates to the conversion of explicit knowledge into tacit knowledge, showing some similarities with the traditional concept of learning (Nonaka 1994, 19). Shared mental models or technical knowledge which evolved through socialisation,

externalisation and combination of previous experiences are integrated in the knowledge base of the individuals in the form of operational knowledge, and turn into valuable assets for the organisation. Corresponding examples comprise project management skills or operational knowledge about production processes, new ways of using products or implementing policies. In order to enable organisational knowledge creation, the acquired tacit knowledge needs to be subsequently shared with other organisational members through socialisation, whereby a new spiral of knowledge creation is started (Nonaka & Takeuchi 1995, 69, 71). In short, knowledge creation depends on the establishment of tacit, as well as explicit knowledge, and particularly on the exchange between both kinds of knowledge by the means of internalisation and externalisation (Nonaka 1994, 20).

### *3.3.5 Absorptive capacity*

The capability to realise the value of new information, incorporate it and use it for commercial purposes, is termed *absorptive capacity*. Previous knowledge augments both the ability to memorise, as well as the ability to remember and apply knowledge (Cohen & Levinthal 1990, 128; Dyer & Singh 1998, 665). Thus, history- and path-dependency are influential in this concept. The positive effect of existing knowledge on learning may originate in associative learning; whereby occurrences are memorised by creating links with existing notions. *Learning* refers to the ability to acquire existing knowledge, whereas *problem-solving* concerns the ability to create new knowledge. However, both capabilities are so similar that it is not necessary to distinguish the forms in which they develop (Cohen & Levinthal 1990, 128-130).

The potential to realise and absorb knowledge of a particular alliance partner indicates a *partner-specific absorptive capacity*. This is influenced by the overlap of the partners' knowledge bases and the development of processes which maximise the frequency and intensity of the communication with regard to the sociotechnical system. The partner-specific absorptive capacity increases, as the individuals of the organisations get to know each other better, in order to know who knows what or where essential expertise can be found. This knowledge evolves often informally over time (Dyer & Singh 1998, 665). The term *relative absorptive capacity* refers to the learning capability in interorganisational learning in a dyadic relationship between a student and a teacher firm. Thereby, learning capability is determined by differences which concern the particular type of knowledge which is coming from the teacher firm, types of organisational structures and compensation schemes and the knowledge regarding organisational problems the teacher company is dealing with. If the teaching and the learning company have more experience concerning similar problems, then the student firm will be better

able to apply the novel knowledge commercially. Thereby, a distinction can be made into the knowledge content, such as scientific, technical or academic knowledge (*know-what*), the method of administering knowledge (*know-how*) and the reason or dominant logic for its commercial application (*know-why*). When studying interorganisational learning between pharmaceutical and biotechnological firms, it was found that a similar basic knowledge, similar compensation practices and similar organisational problems had a positive effect (Lane & Lubatkin 1998, 462, 466, 469, 474).

Similarly, Kogut and Zander (1992, 386) divide organisational knowledge into *information* and *know-how*. Information refers to facts, axiomatic propositions and symbols, which can be accurately transmitted if the syntactic rules for the decoding are known. In short, information indicates what something means, whereas know-how describes accumulated expertise concerning how something is done, which implies that it is acquired over time. For example, a company with several entities creates organisational rules for its capability development and transfer within the organisation through its experience (Zander & Kogut 1995, 78). Opposite to learning, knowledge that can be embodied in operational rules, manufacturing technologies or customer data is relatively recognisable (Kogut & Zander 1992, 384). Individual members who build the link between the company and its environment or who connect different subunits of a company influence the absorptive capacity of the firm. Considerable differences in the knowledge between the majority of the members of an organisation and providers of information from outside will lead to the establishment of ‘gatekeepers’ or ‘boundary-spanning’ roles. These individuals observe the environment and translate external information which is difficult to grasp for other members of the organisation. However, gatekeeper functions are less required, if the information is more related to the current activity. In this situation, gatekeepers may be used so that others do not need to examine the environment (Cohen & Levinthal 1990, 132).

Absorptive capacity can be also understood as a dynamic capability which companies deploy for the evaluation of their reservoir of knowledge as well as the knowledge streams. It has an effect on the kind of a company’s competitive advantage and its sustainability. This dynamic capability comprises a group of organisational routines and processes for the acquisition, assimilation, transformation and exploitation of knowledge, which are combinable and successive. Thereby, *acquisition* concerns the capability to recognise and obtain externally created knowledge that is essential for a company’s operations. *Assimilation* constitutes the analysis, processing, interpretation and comprehension of external information. Next, *transformation* involves the merging of existing and new obtained knowledge, which is achieved through including or removing knowledge or interpreting it in another way. Through *exploitation* companies can improve, expand and leveraging existing competences or generate new ones through deploying the acquired knowledge in their processes (Zahra & George 2002, 185-190).

For example, companies that are engaged in manufacturing operations themselves are better able to capture and use information concerning a certain product market (Cohen & Levinthal 1990, 128). With regard to the internationalisation process, the more experienced a company is in the acquisition of market knowledge through previous foreign ventures, the higher is its absorptive capacity. Thus, the picture about the required market knowledge will be more realistic (Eriksson & Chetty 2003, 677-678). However, whereas *potential absorptive capacity* (PACAP) enables a company to acquire and incorporate knowledge from outside, it is the *realised absorptive capacity* (RACAP) that indicates the company's ability to take advantage of the absorbed knowledge. It is proposed that the higher a company's exposition to dissimilar and complementary external knowledge is, the higher is the opportunity for the company to enhance its PACAP. The ratio of RACAP to PACAP is the efficiency factor η. As the ability to convert and exploit knowledge varies between companies, also the efficiency factor η differs. According to a proposition, the factor can be increased through means of *social integration*. The latter enhance the efficiency of the capabilities to assimilate and transform knowledge, while decreasing the barriers to share information. Companies which are able to realise and preserve a high efficiency factor are in a good position to improve their performance (Zahra & George 2002, 191-194).

### *3.3.6 Dominant logic and competency traps*

Few occasions in a company are perceived as completely unique or requiring systematic evaluation. Normally, they are handled within existing knowledge systems or schemas, which represent the manager's beliefs, theories and propositions and emerged over time, based on their experiences. These schemas serve for classifying certain occasions, evaluating their consequences and judging potential actions. They prevent an organisation from being paralysed by the need to systematically evaluate a huge number of unclear and uncertain circumstances (Prahalad & Bettis 1986, 489). *Dominant logic* represents a learned problem solving behaviour or a way of thinking that is shared as a cognitive map by a dominant coalition or the top management team of a company. It refers to a conceptualisation of decisions on business issues or the allocation of central resources concerning, for example, technology, product development, distribution, advertising or human resources. Dominant logic is inherent in schemas and therefore it can be considered as a knowledge structure, as well as a conception of management processes. However, these schemas may not represent the environment accurately in every case, especially under changing conditions. Moreover, a dominant logic may create the problem of preventing necessary flexibility (Prahalad & Bettis 1986, 490-491; Bettis & Wong 2003, 344-345). The management may assume that the future environment will be very

much alike the one in the past or the current one. The dominant logic can be perceived as local optimum in a state of equilibrium; however, it does not constitute a global optimum. Thereby, its inherent logic implies that before new learning can happen, the old logic must be unlearned in a way. However, the longer the old dominant logic has been used, the more difficult the unlearning process becomes. Therefore, time serves as a central explanatory factor (Bettis & Prahalad 1995, 10-11). Further, also the more successful a company was, the more difficult it becomes to change the dominant logic (Prahalad & Bettis 1986, 498). If the organisation is depicted as complex adaptive system with the dominant logic representing its current equilibrium, moving away far from the equilibrium enables it to notice differences with regard to the environment outside (Bettis & Prahalad 1995, 11-12). In other words, the approach through which an organisation tries to solve problems is changed as an answer to considerable difficulties or crises. Thus, a crisis as a trigger for change may function true to the motto: *'Why fix it if it is not broken?*' Moreover, the management must recognise that an inappropriate answer to a specific problem was caused by the current dominant logic. Now, space for new mental maps has to be created through the process of unlearning, which refers to the elimination of old logics and behaviours (Prahalad & Bettis 1986, 498).

Another malfunction with regard to learning concerns *competency traps*. These are maladaptive specialisations which can emerge when a positive performance is achieved with a process of poor quality. Thus, superior processes are not introduced. For example, in a phase of a technological development, newer processes might be superior to older ones. However, the organisation has problems to leave acquired competences behind (Levitt & March 1988, 322-323). Hence, competency traps entrap an organisation as they increase their competencies in activities which have a decreasing value for the environment (Liu 2006, 146).

A competency trap evolves, if there is an imbalance between the exploration and the exploitation of knowledge in an organisation. *Knowledge exploitation* refers to the utilisation and further use of competencies whereas *knowledge exploration* concerns the striving for new competences and leads to a variation in experience. Through exploitation incremental knowledge and modest returns are instantly acquired, whereas, the results of knowledge exploration are potentially high returns which are also uncertain and unpredictable (Liu 2006, 145). However, under some conditions exploration is a necessary predecessor for being able to execute knowledge exploitation and generate future returns subsequently (Zettinig & Benson-Rea 2008, 357). For example, the organisational learning process of a multinational enterprise which is internationalising its activities is comprising knowledge exploitation, as well as knowledge exploration (Luo 2000, 370).

An imbalance may have various reasons, such as striving for efficiency, limited rationality or path dependent factors (Liu 2006, 145). Zettinig and Benson-Rea (2008,

357) categorise an exploration behaviour which is focused on value creating and ingenuity as *entrepreneurial behaviour* in contrast an exploitation behaviour which refers to *managerial behaviour*. This is determined by more risk consciousness, incrementalism and optimisation. A first-mover in a market may be able to investigate new opportunities through initial learning. In time, companies gradually put the emphasis on a group of routinised activities of exploitation which consequently discourages exploratory learning. However, competitors may not be hindered by learning impediments and therefore can counterbalance the advantages of the first-mover (Liu 2006, 147-150; Luo 2000, 370). Focusing on core capabilities may implicate that these are turned to competency traps in the course of time. For example, leading organisations in established industries may be trapped by exploiting their current competencies and unable to realise evolving competition or renew their knowledge base in case of technological changes. On the other hand, when an organisation overemphasises exploratory activities without connecting the new knowledge and assets with the existing knowledge, it carries the cost of exploration but cannot benefit from it (Liu 2006, 147-149). In conclusion, organisations which manage to balance knowledge exploitation and exploration will be better able to adjust their knowledge base steadily through monitoring trends in their environment and integrating knowledge. Hence, competitive advantage can be achieved and competency traps are averted (Liu 2006, 150; Luo 2000, 370).

## 3.4 Organisational learning and capability development in the internationalisation processes of firms

### *3.4.1 Linking organisational learning, capability development and internationalisation theories*

Organisational learning is based on the establishment and alteration of routines, dependent on the firm's history and oriented towards targets (Levitt & March 1988, 319-320). Through organisational learning a firm improves its competences and acquires new ones. This happens through the application of existing knowledge, as well as the integration of new knowledge. Thereby, organisations play an influential role in the mobilisation of tacit knowledge which is held by individuals and the creation of knowledge through socialization, combination, externalization, and internalization (Nonaka 1994, 34). Conclusions from the past are translated into routines, which determine a firm's behaviour and potential future actions. Experience is accumulated and stored in the form of rules, assumptions, processes or culture. Routines are the most important way of storing organisational experience and a way to coordinate a company's actions

in a dynamic environment. Learning mechanisms affect the creation of operating routines, which facilitate the operational functioning of the company and the creation of dynamic capabilities. The latter represent a company's systematic procedures for altering its operating routines. Hence, learning procedures have a direct effect on operating routines, as well as an indirect effect through dynamic capabilities (Zollo & Winter 2002, 340). The creation of dynamic capabilities enables companies to use new resources or apply existing ones in an alternative way which is essential in the course of a company's internationalisation.

Comparing different types of organisational learning, it can be concluded that most likely trial-and-error learning, as well as improvisational learning will occur during an internationalisation process. Improvisational learning might occur as unexpected situations in a new environment may require ad-hoc problem solving which occasionally might cause new insights. Behavioural trial-and-error learning would imply that successful activities, for example, market entries deploying a certain market entry mode would be repeated. It could serve as an example for cognitive trial-and-error learning, if certain assumptions, for instance, about certain business practices or the management of relationships, were reconsidered after the results did not match the management's expectations. Experimental learning is less likely to take place as the actual business environment does not allow for systematic alterations of certain parameters within a controlled environment. If the learning processes refer either more to single-loop or more to double-loop learning is subject to the level of variation a company experiences on foreign markets. This will be elaborated in more detail under 3.4.2.

The issue of dominant logic is essential as the management's cognitive map, for example, about certain market characteristics or business practices, needs to be most likely to some extent adapted in the course of the firm's internationalisation. Recognising the differences in comparison with accustomed business practices, reacting flexibly to new circumstances and allowing for the required changes, as well as enabling the necessary unlearning process are important factors for a successful entry on new markets. Also the risk of competency traps or a mismatch between knowledge exploration versus knowledge exploitation are critical in the internationalisation of a company. As this process also involves high costs with comparatively low returns in the short run, exploratory market expansion activities need be in balance with the exploitation of business knowledge on existing markets (Knudsen & Madsen 2002, 495).

Companies usually start their operations on the home market. Correspondingly, the created routines and organisational structures are appropriate for this market and not receptive for information from foreign markets. As companies operate abroad, experiential knowledge is increased and their routines and organisational structures are adapted. The required structures and routines need to match the companies' internal resources and capabilities and direct the exploration concerning markets and institutions abroad.

This indicates that it is a rather complicated task to plan the internationalisation beforehand. It is not possible to create structures and routines previously. They need to be established steadily in the course of an organisational learning process considering the firm's capabilities as well as the requirements of the foreign market. (Eriksson et al. 1997, 342, 353) Further, also the transfer of important capabilities requires the reconfiguration of various competences abroad (Luo 2000, 368). Hence, in the preparation of a foreign expansion substantial rearrangements and the application of slack resources need to be considered (Eriksson et al. 1997, 353-354).

The process-based models describe the internationalisation of a company as a stepwise process. In these models the acquisition of market-specific knowledge serves as main explanatory factor for the internationalisation process of firms (Blomstermo & Sharma 2003, 19; Eriksson et al. 1997, 337-338). The required experiential knowledge is gathered through local presence and contacts with customers, distributors or other business partners. This is assumed to be a time consuming process, the management's attitude is risk averse and a large psychic distance between countries or cultures decreases the flow of information. Knowledge is acquired through personal experience and carried by individuals, which makes its transfer difficult. The commitment from performing export operations until operating production lines abroad is increased according to a certain pattern, the establishment chain. The core statement of the model is that an increase in market knowledge affects an increase in market commitment and vice versa (Andersen 1993, 216). In total, in the process model organisational learning is determined through the accumulation of experiential knowledge on an individual level in a slow process. As the way foreign business is conducted changes according to a particular sequence, also the theory of action as well as the theory-in-use of the company needs to be adapted frequently. This may also serve as an explanation for the slow development of the internationalisation process.

The kind of the required experiential knowledge varies depending on the type of industry. If the focus is more on the product as such, corresponding product knowledge is from higher importance. Whereas, when the offering comprises a considerable service content, market-related knowledge becomes more important (Eriksson et al. 1997, 345-346). Further, the acquisition of experiential knowledge about customers and the market, as well as knowledge concerning the institutional setting involves costs. Knowledge is accrued through activities abroad, and must be collected, transferred and decoded. Thereby, knowledge concerning customers, competitors and foreign markets pertains to *business knowledge*. This may be acquired through subsidiaries or through cooperative arrangements with agents and alliance partners. *Institutional knowledge* comprises knowledge about the institutional environment, such as the language, standards, laws and norms. Thereby, it is also crucial not only to know the written technical and commercial standards and laws, but also how these are applied in practice by different gov-

ernment agencies. Ultimately, accrued internationalisation experience influences business, as well as institutional knowledge. It reduces the risks which are associated with the internationalisation process and facilitates the acquisition of knowledge on internal and external resources and ways to combine them. Further, it does not relate only to particular countries. On the contrary, internationalisation experience is firm-specific and important for several markets (Eriksson et al. 1997, 340, 344, 348, 352; Eriksson et al. 2000, 36).

A company's resources are constrained in the early phases of its development, thus, in times of rapid expansion. In order to pursue a growth process under these conditions, the support through business relations may serve as sole solution to this problem (Chetty & Campbell-Hunt 2003, 805-806). Companies will search for partners with complementary abilities and resources (Madsen & Servais 1997, 573). Thus, business networks are from strategic importance, as they provide companies with external information and offer opportunities in foreign markets (Eriksson & Chetty 2003, 676-677).

In general, firms internationalise through the establishment of relations in networks, which is facilitated in three different ways. Relationships are created in new, as well as in existing markets. Further, through existing relations these networks are connected and integrated (Madsen & Servais 1997, 571). Hence, a critical resource in the internationalisation process of born globals is their access to networks, such as distributors, customers, suppliers or subcontractors. Long-term networks possess market and experiential knowledge that benefit born globals in a way that they do not need to wait in order to acquire the knowledge themselves. According to the Uppsala model, companies rely on intermediaries in their first internationalisation steps in order to keep the resource commitment on a low level. On the contrary, the born global approach proposes that networks need to be considerable extensive to enable a sufficient support for the company in various markets (Chetty & Campbell-Hunt 2004, 64). Thereby, born globals flexibly select, integrate and combine their constrained resource base of internalised knowledge with new knowledge from their symbiotic business partners. Within these cooperations exploration in the form of future business opportunities is exchanged against exploitation, which means the execution of current business activities with established business partners (Zettinig & Benson-Rea 2008, 363). First steps in new markets are considered to be innovative and exploratory endeavours which imply the expansion, alteration and enhancement of company resources and services. Correspondingly, this involves high costs and low short time returns (Knudsen & Madsen 2002, 495). The born global firm benefits through the cooperation in several institutional arrangements, as it gains legitimacy. Lacking organisational history and routines are counterbalanced through its eminent ability to adapt. Therefore, the company's situation and its networks at its start are crucial for its internationalisation (Zettinig & Benson-Rea 2008, 363).

In general, strong, long-term network-relationships facilitate the acquisition of market specific, tacit knowledge (Forsgren 2002, 264). Thereby, knowledge regarding relationships differs from general market information. Relation specific knowledge is acquired through experiential learning; thus, it is tacit and difficult to transfer (Eriksson and Chetty 2003, 674). Relationships may be either formal or informal. Besides enabling knowledge transfer they facilitate the conversion from individual into organisational knowledge (Inkpen 1998, 227). Hence, the attitude of decision makers towards internal and external relationships plays an influential role in the internationalisation process (Chetty & Campbell-Hunt 2003, 805). Concerning the repository of the knowledge, the Uppsala model concentrates on the individual firm and particular persons. On the contrary, the network theory puts emphasis on the business environment as a central descriptive factor (Petersen et al. 2003, 41). Models which focus on knowledge and network connections are also appropriate to explicate the internationalisation of born globals (Blomstermo & Sharma 2003, 740). However, also the original Uppsala model needs to take into account the network perspective in a way that issues, such as commitment, knowledge and activities carried out at the moment need to be analysed with regard to an interorganisational setting. Further, networks may reach beyond national borders. Eventually, the degree of internationalisation of an existing business network strongly influences the internationalisation process of a firm (Madsen & Servais 1997, 571).

Whereas the stage models describe the internationalisation process as gradual, according to the born global approach, internationalisation is conducted at a higher pace (Chetty & Campbell-Hunt 2004, 64). This has the reason that strategy plays an influential role for born globals, which often requires a quick internationalisation process. For example, a leading position in a niche market should be captured, first-mover advantages exploited or technological advantages utilised before they are outdated. As several markets are entered at the same time, business networks need to be enlarged much faster and the learning methods need to be different. In a more assertive learning strategy, experimentation and the search for solutions to actual problems are actively conducted and there is a higher tolerance with regard to first-time failure (Chetty & Campbell-Hunt 2004, 76). Eventually, the success of born global firms may be ascribed on their greater ability to innovate in new and dynamic environments, compared to older companies (Autio et al. 2000, 919). Further, companies with enhanced reconfiguring capabilities should be better able to take advantage of opportunities based on alternative combinations of resources and well-arranged processes (Jantunen et al. 2005, 228). Referring to the phenomenon of born-again globals, which suddenly accomplished a rapid internationalisation process after years of serving the home market, it can be concluded that they quickly created dynamic capabilities which enabled them to reconfigure their resource base to successfully compete in new markets. They may encompass the ability to

acquire necessary information on markets and business partners, build and extend relationships, establish alliances or manage contractual agreements such as licences.

As proposed by the literature on born globals, knowledge-intensive firms pursue a more proactive and better structured internationalisation approach. They show more adaptability with regard to the selection of market entry modes and internationalised faster, often growing on the home as on the foreign market at the same time. Conversely, 'traditional' companies act more improvised, reactive and opportunistically. The process proceeds in a more incremental manner and lasts longer. Target markets are closer to the home market concerning the psychical and geographical distance (Bell et al. 2001, 178). Generally, a high level of entrepreneurial orientation contributes to the recognition of business opportunities at an early stage. Further, an entrepreneurial attitude may also facilitate the creation of opportunities through own actions. Subsequently, in many cases new process, business models and additional assets are required in order to benefit from these opportunities. Thus, in a way internationalisation can be considered as entrepreneurial activity (Jantunen et al. 2005, 227-228). From the international entrepreneurship perspective, knowledge enables a better insight concerning the identification and utilisation of opportunities in a foreign market (Casillas et al. 2009, 311). In summary, internationalisation processes can be considered as the outcome of a combination of strategic judgment and strategic action, emerging developments, opportunities and obligations (Chetty & Campbell-Hunt 2004, 63).

### *3.4.2 Absorptive capacity and variation in the internationalisation process*

As in organisational learning, history- and path-dependency are also influential with regard to absorptive capacity. The history of born globals needs to be considered beyond their foundation, since their founders often already had international experience, skills in foreign languages and some cross-cultural understanding. Thus, their knowledge and experience may expand the network to other countries and open business opportunities (Madsen & Servais 1997, 567). Further, the psychic distance to foreign markets is also lower. Hereby, the concept of absorptive capacity can be applied, since existing knowledge enhances the ability to collect, memorise and utilise knowledge which benefits born globals in their internationalisation process. On the other hand, according to the stages model, in the early phases of a firm's internationalisation the firm has only limited knowledge about international markets, which restricts its possibilities to learn and take further steps. The closer the relation of a company's knowledge base and the foreign market knowledge, the higher is the applicability of the knowledge which can lead to a fast internationalisation process. Hence, a wider knowledge base positively influences a company's internationalisation process, because the likelihood that new

knowledge, which is needed under new circumstances, is similar to existing knowledge is increased (Eriksson et al. 2000, 30, 39). Further, partner-specific absorptive capacity refers to this capability concerning a particular alliance partner. With regard to alliances, partner-specific absorptive capacity can be enhanced by introducing processes that enhance frequency and the intensity of the interaction (Dyer & Singh 1998, 665).

The exposure to variation regarding the acquisition of experiential knowledge in the internationalisation process enables a double-loop learning effect. As the company experiences a wide range of business players and institutional environments its current views about the business setting are challenged by potential alternative options. Further, companies operating in various environments will be confronted with unexpected failures. Thus, they will be forced to evaluate their current strategies and practices. As a result of a reflection process, a company may modify its theory-in-use, as well as its strategy and organisational routines. It may also adopt alternative market entry modes. If companies experience only limited variation in their internationalisation process, for instance, it deals with a single product, technology or a single customer, the acquired knowledge on institutions and business practices will be also constrained. Consequently, this result in single-loop or lower-order learning processes (Eriksson et al. 2000, 30-32). In addition, a lack of variation has a direct negative effect on a company's institutional knowledge. With time, companies realise that the institutional environment is more complex than assumed. Rules and regulations may be differently applied by different agencies in different situations. Conversely, a higher degree of variation enables a company to handle various situations, which also decreases the costs of the internationalisation process. Further, companies which are exposed to various cultural environments may be better able to handle cultural differences between a current subsidiary and a new market (Eriksson et al. 2000, 30, 38). Variation during the internationalisation process also improves a company's routines and the ability to search for information on occurrences on different markets, and to collect and interpret information from several perspectives (Eriksson et al. 1997, 354; Eriksson and Chetty 2003, 32)

# 4 METHODOLOGY

## 4.1 Research approach

This study is based on qualitative methods applying *case studies* and an *exploratory* as well as *descriptive research strategy*. A *qualitative research design* aims to explore and comprehend the sense which is assigned by individuals or groups to social or human problems (Creswell 2009, 4). *Exploratory* research offers new insights in the research object, whereas *descriptive research* illustrates attributes of objects, people or organisations (Zikmund et al. 2010, 16). The use of *qualitative methods* emphasises an inductive style, the concentration on personal meaning and the capturing of complex situations. A key reason for applying qualitative methods is an exploratory research strategy. This is an appropriate approach when the topic or population being investigated are only scarcely described in the scientific literature, and it is the aim of the researcher to create an understanding of the problem based on the information given by the participants (Creswell 2009, 4, 13, 26).

*Case studies* are useful research tools in business studies when the research object cannot be easily studied outside its natural setting, and when it is difficult to quantify concepts and variables. The reason might be that there are too many variables which need to be included; hence, experiments or surveys would be unsuitable (Ghauri and Gronhaug 2002, 171). Case studies are empirical forms of inquiry, examining a contemporary phenomenon within its real-life context. Thereby the boundaries between the studied phenomenon and its environment are unclear (Yin 2003, 13). Case study methods are a systematic form of information gathering, about particular persons, groups, social settings, or events. The purpose is to understand the functioning of the object of inquiry. However, case study research goes beyond pure data-gathering; it is a methodological approach that encompasses different data-gathering methods, for example life and oral histories, collection of documents, in-depth interviews, or observation of participants. The approach can substantially vary in the content of inquiry, single individuals, as well as groups, or whole communities can be in the centre of interest. The concentration on a phenomenon should unveil apparent dependencies between different factors which determine the phenomenon. At the same time, case studies have the potential to uncover more concealed aspects that might be missed by other research approaches. Consequently, information derived from case-studies can be characterised by being profound, rich and detailed (Berg 2004, 251).

Thus, the case study approach appears to be a suitable research strategy, as the objective of the study was to develop a sound understanding of the phenomenon of organisational learning and knowledge acquisition in the internationalisation process of manu-

facturing-based entrepreneurial firms. Hence, the phenomenon should be investigated within its real-life context including different kinds of secondary and primary data, such as company webpages, business newspapers and interviews. This should allow for uncovering various aspects, reasons and dependencies which were not accessible to the researcher beforehand, but are essential for developing a comprehensive understanding of the research object.

Case studies can be subdivided in single- and multiple-case studies. Single case studies are conducted if the phenomenon is a critical, representative, unique, extreme, or revelatory case, which was not accessible to research before, or a longitudinal case, which is investigated over a period of time. However, this study is conducted as *multiple-case study*, as the phenomenon of organisational learning and knowledge acquisition in the internationalisation process is studied based on a selection of wood-based prefabricated building producers from three different countries. Multiple cases follow the replication logic which is analogous to those of multiple experiments. Thereby, it is tried to replicate findings in additional experiments under the same, or slightly changed, defined conditions. In multiple-case studies, attention must be paid to the case selection. If the cases predict similar results, this refers to a literal replication, in contrast if the cases represent contrasting results but for predictable reasons, this refers to a theoretical replication (Yin 2003, 39-47). The multiple-case study strategy was applied, because similarities of the actual phenomenon should be studied within the case companies considering certain differences with regard to the framework conditions, such as different countries of origins and consequently differences in the cultural background. Other differences concern their market entry strategies or applied governance structures for foreign activities, the time of the foundation of the company or the stage of their international development.

## 4.2 Research process

At the beginning of the research process, an *initial research question* was defined. This does not need to be particularly concentrated on an issue, but it provides the study with a research focus. As next step the *population* was defined, which is essential in case study-research since it delineates the potential objects of the study (cf. Eisenhardt 1989, 536-537). In this study the population comprises manufacturers of wood-based prefabricated buildings; a detailed description of the case selection is given in chapter 4.2.1. *Research methods* and *instruments* were defined; they comprise the study of secondary information, such as company websites and articles in the specialised press and primary information, such as personal and telephone interviews. For theory building usually different methods for the collection of data are combined, which also enables data trian-

gulation (Eisenhardt 1989, 537-538).

As next step, the *data collection* followed which usually coincides with data analysis in case study research. As first step secondary information was gathered on the companies, and based on this, interview questions were prepared. Next, the interviews were conducted, the results analysed and combined with the secondary information in a within-case analysis (see chapter 0). A *within-case analysis* should familiarise the researcher with a particular case before one starts searching for similarities between single cases (cf. Eisenhardt 1989, 538-541). Afterwards, the *propositions* were shaped in an iterative process by continuously comparing the observed data with the theoretical concept. Once *'theoretical saturation'* is achieved, that is, when new information gathered from additional cases or the improvement in the iteration from data and literature is minimal, the research process can be finalised (cf. Eisenhardt 1989, 541, 545). Sufficient similarities concerning knowledge acquisition and organisational learning approaches within the very differing cases could be observed to shape meaningful propositions; thus, theoretical saturation was attained.

### *4.2.1 Case selection*

The three main criteria for the case selection were that the companies should be in the prefabricated or log house business; they should have evolved from small, family owned businesses and successfully expanded abroad. Originally it was planned to include Austrian and Finnish case companies. However, Wolf System was originally founded in Austria, but meanwhile the company has two headquarters, one in Austria and one in Germany, which manage different geographical areas. Thus, the opportunity was taken to conduct one interview with a general manager of the German head-office. Moreover, it need to be mentioned that Wolf System is an affiliated group comprising different construction businesses, whereby the prefabricated housing business accounts for about 25 percent of the total turnover (Sailer 2006). In total, managers of five companies were contacted to take part in the study and all of them agreed to participate.

Honkarakenne Oyj is listed on the Helsinki stock exchange, the German Bien-Zenker AG is also a listed company, however, almost 90% of the voting shares are owned by the Elk Fertighaus AG (Elk-Fertighaus AG 2011a). Thus, Honkarakenne Oyj is the only publicly owned company in this case study. In all cases the companies are either producing log houses or prefabricated houses, whereas their offerings differ. Honkarakenne Oyj's products are log houses as residential homes, leisure buildings or for larger projects, for example, hotels. Lapponia House also sells conventional log homes, whereas their core product, Thermolog, is a modified version of a log wall construction containing thermal insulation inside. Besides this, they sell timber-frame constructions or hy-

brids of these structures. Elk, Wolf and Vario-Bau produce timber-frame-based prefabricated houses, Elk also log houses. The companies were founded in different decades of the last century. An overview over the case companies is given in table 5.

Table 5 Case companies

| ***Company name*** | ***Company headquarter*** | ***Business(es)*** | ***Founding date (first production of houses)*** | ***Annual Turnover 2010 in million EUR*** |
|---|---|---|---|---|
| Elk-Group (including Bien-Zenker AG) | Schrems, Austria | Prefabricated houses and log houses as single family houses and for commercial/public projects, hotels and motels | 1959 (1979) | 263 |
| Honkarakenne Oyj | Järvenpää, Finland | Log houses, also for larger building projects (e.g. hotels) | 1958 | 58 |
| Lapponia House | Vantaa, Finland | Wooden houses (Thermo log, log houses, timber-frame constructions, hybrid structures) | 1981 | 20 (2009) |
| Vario-Bau | Wiener Neustadt, Austria | Prefabricated houses as single family houses and for commercial/public projects (e.g. office buildings) | 1982 (1989) | 22 (2009) |
| Wolf System | Scharnstein, Austria and Osterhofen, Germany | Agricultural and industrial silos and reservoirs (concrete structure), construction of halls, prefabricated houses, nail-plates for wood connections | 1966 (1975) | 450 |

The cases are good examples to study different internationalisation approaches and histories, which started at different points in time. The owner and general manager of Vario-Bau, Ing. Josef Gruber, is at the same time president of the Austrian and the European Premanufactured Building Association, which offered the opportunity to interview him also concerning these functions.

### *4.2.2 Data collection*

Data about every firm were collected from different sources. The collected data comprise *secondary information* from company websites, their catalogues, business newspapers and personal interviews. The *semi-structured personal interviews* served as the main data source to study the phenomenon of organisational learning and knowledge acquisition.

In February 2011, the general manager of the Austrian premanufactured building association, Mag. Christian Murhammer, was contacted by phone to inform him about the study and get recommendations for case companies in Austria. Moreover, he was also asked for his expert opinion about the major challenges these companies face in their internationalisation. This should give a first idea concerning a main question of the study, so that the interview questions for the companies could be adjusted accordingly.

For the interviews in the companies an interview guide was prepared, based on the research questions and theoretical concepts covered in the outlined literature, the telephone interview and the results of the preceding bachelor's thesis (see appendix 1 and 2). The interview guide specifies the topics covered, as well as their order, wherein the topics might be covered on a more superficial level or more detailed as worded questions (cf. Kvale 1996, 129). Before each interview a research on each company was conducted, based on the company's website and information of business papers. Consequently, the questions were slightly adapted to consider company specifics as well as some additional questions concerning particular occurrences in the history, the company structure or financial figures were included.

The interviews were conducted as semi-structured interviews. Predetermined questions were asked in a systematic and consistent order. However, during this kind of interviews the interviewer is allowed, or even expected to deviate from the guideline and ask probing questions which go beyond the prepared material (cf. Creswell 2009, 80-81). The interviews in the case companies were conducted in March and April 2011 (table 6).

Table 6 Data interviews

| ***Company / Organisation*** | ***Place*** | ***Interview partners*** | ***Date*** | ***Duration*** |
|---|---|---|---|---|
| Austrian Pre-manufactured Building Asso-ciation | (Telephone interview) | Christian Murhammer, General Manager | 15.2.2011 | 20 min |
| Vario-Bau | Wiener Neustadt, Austria | Josef Gruber, Owner and General Manager and President of the Austrian and the European Pre-manufactured Building Association | 01.03.2011 | 45min |
| Wolf System | Osterhofen, Germany | Alois Konrad, General Manager | 03.03.2011 | 50min |
| Wolf System | Scharnstein, Austria | Josef Neuwirth, Head of Business Unit Prefabri-cated Houses | 04.03.2011 | 1h 5 min |
| Elk | Wiener Neudorf, Austria | Thomas Rieder, Head of Export & Licence | 08.03.2011 | 1h 10min |
| Honkarakenne Oyj | Järvenpää, Finland | Risto Kilkki, Senior Vice President Sales and Mar-keting | 01.04.2011 | 1h 32 min |
| Lapponia House | Vantaa, Finland | Kim Paasonen, Export Manager | 05.04.2011 | 2h |

Some weeks in advance, the companies were contacted via phone and a covering letter was sent previously to the interview partners explaining the content of the study and that it was conducted as master thesis project at the Turku School of Economics. Moreover, the background of the researcher was briefly explained, and a time estimation of 45 minutes to one hour was given. It was also pledged that the interview partners would receive a summary of the interview for approval in order to ensure that no sensitive information would be revealed. At Lapponia House originally two interviews were planned, but due to time difficulties only one could be conducted. However, Mr. Paasonen, the Export Manager, was so kind to take two hours for the interview. During the telephone interview only manual notes were taken. The interviews at the case companies were recorded, and manual notes were taken additionally.

Five skills a case study researcher should have comprise the ability to *ask good questions* and interpret the answers. As *good listener* he should not be confined by his own ideologies or preconceptions. He should be *adaptive and flexible* to new situations and *have a firm grasp of the issues* he studies. Finally, the investigator should be *unbiased by preconceived notions* in order to be receptive to contradictory evidence (Yin 2003, 59). Generally, the research interview is an interpersonal situation, wherein knowledge

is created through a dialogue, about a topic which is of mutual interest to both parties. In this situation the researcher has to bring the interaction beyond polite conversation or exchanging ideas. Therefore, it is important to create an atmosphere which allows the interviewee to talk freely about his experiences and feelings. This requires a balance between cognitive knowledge seeking and considering ethical aspects of emotional personal interaction (Kvale 1996, 125). All the interviews took place in a relaxed atmosphere with sufficient time. As the author has knowledge on construction business, business aspects could be treated from a practical perspective. Generally, the conversations which evolved were profound and all topics could be included. The interviews were conducted in German, except one at Honkarakenne Ojy, which was held in English. Afterwards, a literal transcript was drafted. This served as basis for a summary of the interview which was sent to the interview partners. The description of the case companies and their internationalisation process (see 5.2) is mainly based on secondary data from different sources which is occasionally complemented through primary information from the interviews in order to achieve a comprehensive description of every case.

### *4.2.3 Case analysis*

The actual phenomenon of organisational learning and knowledge acquisition in the internationalisation process of the case companies was studied based to a large extent on the semi-structured interviews. Certain steps, including several levels of analysis need to be followed in qualitative research in order to proceed from a specific to a general level. First, the data were organised and prepared for the analysis, which involved the transcription of interviews. Secondly, the researcher read through the whole set of data in order to develop an understanding of the general sense of the acquired information (cf. Creswell 2009, 185). Based on that, a summary of each interview was prepared. Next, as some issues covering certain topics of the interview guideline came up at some point during the interviews and not always in the particular order of the guideline, previously to the analysis, the contents of the interviews needed to be analysed and coded. *Coding* refers to the procedure of classifying text elements or pictures into categories and labelling these categories (Creswell 2009, 186). In this case, the text elements were sorted based on an operationalisation of the research question (see appendix 1 and 2). The following steps included a detailed description of the events in the research setting, and an outline of themes which cover the major findings of the study. Finally, these descriptions and themes need to be represented in a certain way, for example, as passages of narratives, and interpreted as well (cf. Creswell 2009, 186). The themes covered in this study refer to the subheadings of 5.3. These involve comparisons between the case companies on several issues which were covered in the interviews. The find-

ings of the cases are compared and interpreted considering the different internationalisation histories provided in 5.2. Chapter 6.1 contains the interpretations of the findings with regard to the theoretical framework, and in chapter 6.2, conclusions from the cases concerning managerial implications are drawn.

## 4.3 Evaluation of the study

*Validity* in qualitative research refers to the accuracy of the findings from the viewpoint of the researcher, as well as from the participant's or reader's perspective. Different procedures can be employed to enhance the validity, such as triangulation, a sound description of the research setting, stating the bias of the researcher, presenting also negative information and using peer review or external auditors (Creswell 2009, 191-192). Triangulation comprises multiple data collection techniques, multiple theories, multiple researchers, multiple methodologies or a combination of these variants (Berg 2004, 5-6)[8]. When observing a social or symbolic reality, every research method gives a particular sight towards the issue of interest. A combination of these different views, should give a researcher a more sound and comprehensive picture of the reality (Berg 2004, 5). Other methods to increase validity comprise, for example, the use of multiple sources of evidence, as well as the establishment of a chain of evidence, the application of replication logic in multiple-case studies or the draft of a case study protocol and the use of case study databases (Yin 2003, 34-38).

In this study, *triangulation* is the main method to increase the validity. Therefore, also negative or disrupting information is included in the case studies. Further, triangulation is accomplished by using primary data from interviews, as well as data from different secondary sources and including cases from different countries in the study to ensure to have a group of research objects representing a sufficient variety (sees 4.2.1). Moreover, in one company interviews were conducted with two managers who came from different offices, located in Austria and Germany. Concerning secondary information, it was attempted not to rely only on company data but to include also data from business magazines or newspapers. However, this possibility was limited to information provided in English or German, since the researcher does not have sufficient command of Finnish. Another limitation was that smaller companies do not provide much written information concerning the company history or their actual business, such as press releases, etc. Thus, the company descriptions especially of Elk and Honka are more comprehensive and include more secondary information. However, triangulation could be

[8] Original Source. Denzin, N., 1978. The Research Act, New York: McGraw-Hill.

conducted as the interview data were evaluated considering secondary data from different sources, as far as they were available.

In order to evaluate the quality of empirical social research designs, four tests concerning construct validity, internal validity, external validity and reliability can be conducted (Yin 2003, 33-37). *Construct validity* refers to the establishment of correct operational measures for the examined concepts. Therefore, certain tactics can be applied as the use of multiple sources of evidence, the establishment of a chain of evidence, or a review of the case study draft through key informants (Yin 2003, 34). These measures were applied in this study, as it includes primary information from the interview partners, as well as secondary information from various sources. *Chain of evidence* refers to the traceability of any evidence from the initial research question to the conclusion (Yin 2003, 105). Also this principle was followed, as the interview guideline was based on an operationalisation of the research question. Moreover, this operationalisation also served as basis for the coding and analysis of the interview data. Since a transcript of the interview as well as the research report was sent to the interview partners, also the last claim for increasing the construct validity is fulfilled.

*Internal validity* concerns the establishment of a causal relationship, whereby this is only a criteria for explanatory or causal, not for descriptive of exploratory studies. Hence, this criterion is not relevant for this study. *External validity* refers to the generalisability of the findings. In multiple-case studies this is achieved through applying *replication logic*, which is the case in this study, as the phenomenon was studied at similar companies which fulfilled certain criteria (see 4.2.1). *Reliability* is achieved, if another researcher could follow the procedures in the case study and come to the same result (Yin 2003, 34-37). This requires, for instance, a correctness of transcripts, and a consistency in coding and definitions (Creswell 2009, 190). Further, measures to enhance reliability are the documentation of the procedures, which were followed in research process, in a case study protocol, and the storing of the data in a case study database, that a later investigator can get direct access to the underlying evidence of the case study (Yin 2003, 34, 37-38, 102). As far it was possible, these criteria were fulfilled in this study. All the secondary material included in this study is documented and saved in a literature database. Further, all interviews were recorded and transcribed. However, for confidentiality reasons they are not accessible to other persons. Nevertheless, the correctness of the interview transcripts was confirmed by the interview partners. Further, the applied definitions and the operationalisation of the research question, which also served as basis for the coding of the interview answers, are outlined in 1.3 and in the appendices 1 and 2, respectively, and can be followed by other investigators.

*Generalisability* is in general somewhat limited in qualitative research, since its strength originates in the specific description and development of topics within the context of a particular setting. However, results can be generalized to a certain extent when

the findings can be applied to additional added cases, as in the replication logic in experimental research. Therefore, a detailed description of the problem, as well as a sound documentation of the case study and the applied procedures is necessary (Creswell 2009, 192-193). As far as the findings of the case studies in this study match with the theoretical concepts, generalisability is achieved to a certain extent.

# 5 ANALYSIS OF ORGANISATIONAL LEARNING AND KNOWLEDGE ACQUISITION IN CASE COMPANIES

## 5.1 Emergence of the wood-based prefabricated houses

In this chapter, the emergence of the industrialised production of prefabricated houses, based on wood, is outlined. As log houses for residential buildings are generally a niche product (Kilkki 2011), the industry development refers to houses which are mostly based on wood frame constructions. However, reasons for the emergence of the log house industry in Finland are briefly addressed.

The idea of prefabricating building elements before bringing them to the construction site is not new, elements of timber framed houses were cut-to-size beforehand already in the middle ages. Also in Japan, according to historical tradition, the first handmade, premanufactured cottages, which could be transported with two handcarts date back to the 12th century (BDV e.V. 2007, 6, 22). In 1494, Leonardo Da Vinci designed the *'Casa Mutabile'* a portable garden house, which was assembled from premanufactured elements (ÖFV 2010a; BDF e.V. 2011b).

In the 19th century, prefabricated building elements were used by settlers in Australia and the US, especially in the gold rush years, in order to save construction time (ÖFV 2010; BDV e.V. 2007, 22). Also first exports of these houses date back in this time. The London carpenter H. Manning first designed a portable cottage for his son who emigrated to Australia. Subsequently, an advertisement in the South Australian Record for *'Portable Colonial Cottages'* in 1837 proofed to be successful, since dozens of these houses were shipped to Australia in the following years (Housing.com 2011). In 1861, the American timber trading company, *Skillings and Flint*, patented portable houses that consisted of a few standardised panels, which could be easily assembled, disassembled and transported. Their biggest customer was the Union Army. These houses were probably also the predecessors of the portable buildings which were used by railroad workers who constructed the transcontinental lines (Stiller 1998, 748; Schweitzer and Davis 1990, 60). In Germany, barracks for military hospitals were built from premanufactured elements in 1807 in Königsberg. Premanufactured wooden houses were also shipped to German colonies (BDV e.V. 2007, 6).

At the turn to the 20th century, Gustav Lilienthal, the brother of the airplane pioneer Otto Lilienthal, developed prefabricated houses which were called '*Terrast'*- houses and used in welfare housing developments (BDV e.V. 2007, 9). In Austria, the first prefabricated house was presented by the entrepreneur Wenzl Hartl to the emperor Franz Joseph I. in course of a hunting fair in 1910. Today, this house still stands at the company headquarter of Hartl Haus in Lower Austria (Musterhauspark 2011). The world's largest

producer of prefabricated houses in that time was *Sears, Roebuck & Co* in Chicago. Starting from 1908 they sold prefabricated houses via a mail catalogue. Delivery and assembly was included in their offer. Until 1940, they sold over 100.000 houses in 447 different models which comprised one-room houses, as well as multifamily homes and multi-storey buildings (Housing.com 2011b). The *Federal Housing Administration* set up norms and guidelines and evaluated products in a technical report in order to provide the consumer with a basis for comparisons in the US. Due to the rising demand, 280 prefabricated house manufacturers existed in the 1940s and the share of prefabricated houses accounted for 25% (Stiller 1998, 750).

As one of the first architects in this branch, Frank Lloyd Wright designed the *'American System-Built Houses'* also known as *'American Ready-Cut System'* and co-operated with the construction firm Richards Company from Milwaukee between 1911 until 1917. He tried to provide a range of variants as large as possible instead of only a limited number of types following the approach that the elements should be prefabricate instead of the whole models. However, the venture was no commercial success (Housing.com 2011a). In Germany, the development of the industrial productions building started in the late 19$^{th}$ century (Stiller 1998, 750). As wood as a raw material was not affected by the economic crises after the First World War in Germany, it was used for the production of about 200.000 houses per year. These were partly prefabricated houses made in small-series production. One of the wood construction companies, Christoph & Unmack, had already a large export success during the 1920s (BDV e.V. 2007, 10-11). Also in Austria the first boom of prefabricated houses emerged in the interwar period. Thousands of prefabricated houses were built in the wider area of Vienna (Musterhauspark 2011).

In 1919, the architect Walter Gropius, who became the head of the *Grand Ducal School of Arts and Crafts* in Weimar, merged it with the *Weimar Academy of Fine Art* of which the *Staatliches Bauhaus in Weimar*, or in short *Bauhaus*, evolved (Bauhaus-Archiv/Museum für Gestaltung 2011a). It was based on the idea that the *building for the future*[9] should unite all artists in an ideal entity and as having handcraft as precondition for arts, the school should be gradually merged in a workshop (Bauhaus-Archiv/Museum für Gestaltung 2011b). Gropius dealt with large scale residential buildings and proposed the rationalisation of the construction industry. Thus, the idea of prefabricated houses and prefabricated construction was promoted. A number of housing projects was realised in Germany and later light-weight constructions in wood and steel were developed. Cost reductions should be realised via mass production, whereby the offer should not be restricted to standard houses but it should be based on a standard

[9] In German: 'Bau der Zukunft'

model which can be extended in form of a building block concept (BDV e.V. 2007, 12-13). One of Gropius' partners was Konrad Wachsmann and architect and engineer who was originally trained as joiner. He was involved in the development of machines for the prefabrication of wood houses. Two of Wachsmann's well-known projects are the so called *'Direktorenhaus',* a log house for the owner of the Christoph & Unmack AG, and a prefabricated wooden summer house for Albert Einstein. After his emigration to the United States he developed together with Gropius the '*Packaged House System',* a wood-based prefabricated house which could be assembled by five unskilled workers in less than nine hours (BDV e.V. 2007, 14-15). The architects were influenced by the principles of Taylor, which were successfully applied by Ford in the production of automobiles (Stiller 1998, 749).

The economic crises and the Second World War delayed the development of prefabricated construction in Europe (ÖFV 2010a). After the war, a rise in housing demand and increasing welfare promoted the development of the prefabricated house industry. For example, in Germany in the 1950s a number of carpentry companies transformed into industrial prefabricated house producers and the first show houses were built (BDV e.V. 2007, 24). In 1963, the first prefabricated house exhibition was opened, the industry receives rising attention in the media and large mail-order businesses begin to market the houses in their catalogues. Consequently, it benefits also from the building boom in this decade. The trend continued in the 1970s, when companies started to cooperate with savings and loan associations in order to provide financing for their clients (BDV e.V. 2007, 24-28). In the 1980s, the wood compound constructions were introduced which are used up to the present day (Musterhauspark 2011).

The rise of the log house companies in Finland was triggered by an increasing demand for cottage houses. An important factor therefore was the consequences of a structural change in the economy after the Second World War. Hundred thousands of people moved from the country side to the towns or emigrated, for example, to Sweden. From 1950 to 1975 the population in rural areas in Finland decreased by about one million people. These people were an important part of a group which wanted to spend their spare time in the countryside. This combined with an increase in the welfare level and legally regulated summer holidays led to a strong demand for summer cottages beginning from the 1950s (Jäntti et al. 2008, 11, 14)

Today the share of prefabricated houses in various European countries varies significantly. For example, in Germany the share is with 15% relatively low compared to the share in Austria of 33% or Finland with approximately 70% (BDF e.V. 2011c; ÖFV 2008; Pientaloteollisuus PTT ry 2011). The difference between Austria and Germany results, for example, from differences in the image of prefabricated houses. In Austria, continuous improvements regarding technology and building materials and the availability of a large variety of types of houses with a modular design resulted in an image

change, and led to the popularity of this kind of house (ÖFV 2010). In Germany, prefabricated houses used to have an inferior image in terms of quality (Menzel 2010; Heidler 2008, 1).

Over the years, the prefabricated housing industry organised itself in associations. For instance, the predecessor of the Association of German Premanufactured Building Manufacturers[10] was founded in 1961, A corresponding association in Austria was founded in 1979 (BDV e.V. 2007, 27; Musterhauspark 2011). In 2000, European Federation of Premanufactured Buildings[11] was founded, which represents the national associations of eight countries today. The federation promotes the competitiveness of premanufactured construction in timber, as well as transnational quality standards and conducts joint research projects (EFV 2011; ÖFV 2010b)

## 5.2 Introduction of the case companies

### *5.2.1 Elk*

This Austrian case company was originally founded by Johann Weichselbaum in 1959 as Ivo-International, a trading business for machinery and technical products, as well as the design and construction of production facilities. In 1970, the company began to import log houses from Finland which were sold under the brand name Elk-Haus. In 1979, an own production facility for prefabricated houses was established in Schrems, Austria, close to the border of Czechoslovakia. A reason for this location was the availability of cheap investment credits in this region due to the closeness of the Iron Curtain. In 1989, Elk began to produce its own log houses and stopped the import business. One year later the legal form was changed into a corporation, the ownership remained with the family Weichselbaum. In 2002, Elk acquired 78% of the German Bien Zenker AG (Haller and Schedl 2009, 55; Menzel 2010; Elk-Fertighaus AG 2011c).

The history of German company, Bien-Zenker, dates back to 1906, when a carpentry and sawmill were founded by Heinrich Bien. Since 1962, it is also in the prefabricated housing business. In 1994, the company was listed on the stock exchange in Frankfurt as Bien-Haus AG. One year later the the B.O.S.-Haus-Vertriebsgesellschaft was founded, which is a sales-cooperation with the German DIY trade chain OBI, which is marketing prefabricated houses under an own brand name. In the same year, a majority

[10] German name: Bundesverband Deutscher Fertigbau e.V.

[11] German name: Europäischer Fertigbauverband (EFV)

on the Bien-Haus-Hungaria GmbH in Budapest acquired, which eventually became wholly owned in 1998. In 1996, the company acquired the Zenker-Hausbau GmbH & Co in Michelstadt, Germany and the Zenker Hausbau GmbH & Co in Veitsch, Austria, which both belonged to the Philip Holzmann AG. A subsidiary in Slovakia was founded in 1999. Elk became shareholder of the Bien-Haus AG in 2001, has the majority since 2002 and today it holds 89,5% of the voting shares (Bien Zenker AG 2011; Zenker Hausbau GmbH 2011; Rieder, interview 2011; Elk-Fertighaus AG 2011a). Due to a strong decline in building permissions by 38% in Germany in 2008, the board of Bien-Zenker AG decided to close the factory in Michelstadt, Germany (EquityStory AG 2008).

In 2009, the founder Johann Weichselbaum who owned about 88% of the Elk AG left the company in the course of a management buy-out. His son, Erich Weichselbaum, and two other board members constitute the new management board (Frühmann 2009). For this purpose the D.E.I.N Haus Holding GmbH was founded, which holds 66% of the Elk AG (Elk-Fertighaus AG 2011b). In 2010, a licence for BOKLOK houses in Germany was acquired. The BOKLOK houses are sold through a partnership between Ikea and the Swedish construction corporation Skanska, which was started 15 years ago. The first markets were in Scandinavia and the UK. Between 300 and 400 BOKLOK-houses should be built by Elk's subsidiary Bien-Zenker in Germany per year (Menzel 2010).

The Elk-Group had 1500 employees, achieved a turnover of 263 m EUR, and had a production output of about 1600 houses, wherein in the factory in Austria 650 people were employed and a turnover of 129 m EUR was achieved in 2010. According to information of Elk, the company has a market share of 15% in Austria (Elk-Fertighaus AG 2010a; Elk-Fertighaus AG 2011a). Since 2002, it is market leader in Europe (Haller and Schedl 2009, 55). The group has four production facilities in Austria, Germany and the Czech Republic. Nine companies in Germany, Austria, Switzerland, Czech Republic, Slovakia and Hungary are wholly-owned or Elk has a majority stake. (Elk International Export & Licence Division 2011).

Elk has also a subsidiary in the Czech Republic, WindowStar s.r.o., which produces windows and house doors for the Elk but also for other companies. The company was originally established as a joint-venture with an agricultural cooperative during the communist era. The windows were sold to the Elk's factory in Austria. The acquired foreign currency was used to buy the used production line from the Austrian factory and install it on the Czech production site in Plana. Since 1989, also prefabricated houses are produced and sold in an own subsidiary in the Czech Republic. In the Austrian factory in Schrems a new production line was installed (Elk-Fertighaus AG 2011a; Rieder, interview 2011).

Besides prefabricated single-family houses which is Elk's core business, its product portfolio comprises log houses, various residential buildings, office buildings, public or commercial facilities. In order to manage larger residential building projects, a wholly-owned subsidiary, Elk-Projektbau GmbH, was founded in April 2010 (Elk-Fertighaus AG 2011c; Elk-Fertighaus AG 2011a; Elk International Export & Licence Division 2011b). In the same month, houses with passive house standard were introduced in the product portfolio and already amount 20% of the sales in in Elk's core markets Austria, Germany and Switzerland (Elk-Fertighaus AG 2010a). Besides its own distribution channels, in Austria Elk is also selling houses in cooperation with the DIY trade chain bauMax under the brand name bauMax Haus. In Switzerland, Elk also sells in cooperation with the trade chain Coop the Coop-Minergie-P-Haus (Elk-Fertighaus AG 2010a). An own department provides services as renovations, reconstructions, extensions and thermal renovation for existing customers (Elk-Fertighaus AG 2011a). Since 2006, Elk is also conducting building projects for hotels and motels. Six motels were already built in Germany and Austria (Elk-Fertighaus AG 2010). Thereby, prefabrication allows for short construction times with fix completion dates and prices and considerable lower costs, up to 50%. In 2010, a strategic cooperation with the Derenko GmbH, a specialist for designing and planning hotel projects, was signed to offer the customers a comprehensive service from the planning until the complete realisation (Elk-Fertighaus AG 2010b).

About 30% of the sales volume of the Elk AG is generated in Germany and Switzerland where Elk is directly distributing via own subsidiaries. In 2006, the Elk AG established a licence system which has meanwhile licencees in 20 countries. The majority is in Europe, other licencees are located in Angola, Nambia, Syria and South Korea. The most important markets in the licence system are Italy and Great Britain. In 2011, Elk was conducting some three to four storey residential building projects in the UK. Other important export projects comprised a 1000 m² residential area in Siberia, the house for the Austrian House for the Olympic games in Nagano or buildings for the State University of Tetovo in Macedonia (Elk-Fertighaus AG 2010c; Elk-Fertighaus AG 2011a). Generally, the licences refer to sales licences. Romania, Elk also licenced out the production. However, production licences only make sense if a large sales volume in the country can be achieved (Elk International Export & Licence Division 2011a; Rieder 2011). The total sale volume for the export over licencees was estimated to 3,7 m EUR for 2010 (Elk-Fertighaus AG 2010a).

### *5.2.2 Honkarakenne*

Honkarakenne Oyj is a producer of log houses which are sold under the brand name Honka[12]. The company was founded in the late 1958 in Lieksa, Eastern Finland, as a family business. Over the next years all five brothers of the family Saarelainen entered the company. At the beginning, the main business was sawing and the production of cottages from planed blocks. The first cottage was delivered abroad in 1962 to England. At Honkarakenne the first machine for industrial production of round logs for log houses was constructed and went into operation in 1963. Industrial production enabled an enormous increase in productivity compared to traditionally handicraft based manufacturing. At the same time, there was a strong increase in demand for summer cottages in Finland (Jäntti et al. 2008, 14-15).

In 1965, a sales office was opened in Helsinki and one year later the first show house in Järvenpää, where today the company's head office is located. Due to the increase in sales, the capacity in Lieksa became insufficient. Thus, in order to gain capital for the company's expansion, it was transformed in a corporation; however, the family lost the majority of the voting rights. Due to a disagreement with the majority holders, in 1967 a new company, Honkarakenne Ky was founded in Ikaalinen for planed blocks and log houses. The money came partly from an export order of saunas to England. However, subsequently the export business to Great Britain did not develop as expected, due to the high insurance rates for wooden houses. In 1970, the company was transferred in a corporation and in the same year an export corporation, Nordic House, was founded in combination with a sales office in Turku. Four years later, it was transferred to the head office in Järvenpää. Also in 1970, the company started export cooperation with Ivo-International in Austria. The houses were sold under the brand name Elk-Haus. The cooperation continued until Elk began with the log house production in 1989 (Jäntti et al. 2008, 16-17, 32-33; Haller and Schedl 2009, 55)

A new production for round logs was established in Karstula in 1971. One year later, with a prepayment for a big export order of 250 houses for Japan, the brothers could regain the control over the first factory in Lieksa. In the same year, export business to Germany started. To control the growth process of the company, the general manager at that time, Eino Saarelainen, introduced target oriented business planning, developed the domestic sales as well as export organisation and concentrated the marketing activities in the new headquarter in Järvenpää in the 1970s. In 1973, further investments were made in Karstula. Three years later, the log house production was transferred from Ikaalinen to Lieksa and in Ikaalinen, further on, carpentry goods were produced. After

[12] Both expressions Honkarakenne and Honka are used in the thesis interchangeably.

the death of Eino Saarelainen, his brother Reino became general manager. In 1978, Honkarakenne had become clear market leader in Finland. In Sweden, the first subsidiary was founded. However, diverse problems occurred, the business lacked profitability, and was eventually abandoned in 1985 due to a collapse of the Swedish housing market. Another sales office for Honka houses started in Toulouse, which was no subsidiary of Honkarakenne. While at the beginning, the company concentrated on the production of saunas and summer cottages, in 1978 a separate collection for residential buildings was created (Jäntti et al. 2008, 17-19, 25, 27, 33-34, 37).

In 1980, the decision was made to expand the factory in Karstula and concentrate the production there. Six years later, Honkarakenne began to intensify its efforts in Germany by participating in the Constructa trade fair which became the basis for nowadays sales network. In 1987, the company was listed on the Helsinki Stock Exchange in order to receive capital for its further international expansion. From 1986 to the end of the 1980s, the sales increased from 100 m FIM to more than 200 m FIM. Two additional factories were acquired. The first one in 1988 in Paltamo, Northern Finland, and in 1990, Honkarakenne took a stake in the company Finwood Oy in Alajärvi, which had developed a glued-laminated beam, providing technical advantages compared to ordinary logs. The company was fully taken over in 1995. (Jäntti et al. 2008, 20-21, 34-35; Honkarakenne Oyj - Teirikari, P. 2008; Honkarakenne Oyj 2010a).

At the beginning of the 1990s, subsidiaries were founded in Japan and Germany. It was the aim of the Japanese subsidiary to create a network of salesmen, import the products and conduct product development. The business had a positive start due to the gained experiences from the previous exports business. Germany soon became Honka's most important export market. In 1995, a subsidiary was established in Paris, based on the existing office of Finwood and Pierre Vacherand. Furthermore, after a phase of market analysis and trial sales on the US market, a subsidiary was founded in Tennessee. Ten years later, Honka entered also the Canadian market. In the US, the contracts with the sales representatives were changed into importer contracts and the subsidiary was closed down. Honkarakenne started cooperation with Rossa Rakenne in Russia in 1996. The company has sales offices in Moskow, St. Petersburg and since 2007 also in Perm. Today, Russia is one of the main markets for Honka. Later partnerships were also established in Kazakhstan, Azerbaijan and the Ukraine. In 1997, about 70% of the exports were sold via subsidiaries and the total share of foreign business amounted to 55%. Honka built Design Centres in Japan, France and Germany which should serve as reference buildings but also for supporting sales and technical advice. The Design Centres were opened in 1998 at the company's 40$^{th}$ birthday; one in the US had been already opened in 1996. (Jäntti et al. 2008, 34, 36-37, 39, 40-42). Over the years the company sold more than 70000 log houses world-wide and has become a market leader (Honkarakenne Oyj 2010).

At the end of the 1990s, it was realised that the company needed to concentrate its activities and decrease the number of locations in order to stay competitive. Thus, the equipment of the log frame production was completely renewed. In the year 2000, the recently modernised factory in Karstula was destroyed by a fire. However, this allowed for a complete redesign of the factory. In the same year, the factory in Ikaalinen was spun off into the PW-Windows Oy, one year later Honka sold the majority of the shares. Due to the shift of the market demand from solid wood beams to laminated beams and its remote location, the factory in Lieksa was shut down in 2005. In 2006, the plant in Paltamo became an independent company which produced agricultural buildings and standard models of smaller summer cottages with round logs. (Jäntti et al. 2008, 20-22, 47-78).

Today the company produces in two factories in Karstula and Alajärvi. Honka's main markets are Finland, Germany, France, Japan and Russia, and the company has subsidiaries in Germany, France, and Japan and partner companies in over 30 countries. Honka is active in various European countries, North America, Lebanon, the Middle and the Far East (Honkarakenne Oyj 2011a). The company has about 291 employees and achieved a net sales of 58,1 m EUR in 2010. Thereof, 47% came from Finland, 20% from the Central Europe, 10% from Japan and Mongolia and 23% came from other countries like the US, the CIS countries or Estonia (Honkarakenne Oyj 2011c). In terms of voting rights, today the biggest shareholder is the Saarelainen Oy, which holds 32,1%, while other shareholders hold at maximum 4,7% (Honkarakenne Oyj 2011).

Besides its core products, buildings based on round, planed and laminated logs, in 2008 Honka introduced a wall system, Honka Fusion, which is based on a non-settling massive wood frame, enabling a combination with other materials. This facilitates the construction of low energy houses, with a thermal insulation, whereby the outside as well as the inside can be plastered, panelled or covered by other materials. Thus, these houses can be also build where stone-covered walls are required (Honkarakenne Oyj 2009a).

Through conducting project business, Honka could occasionally receive important orders which created public awareness and supported their international expansion. In 1970, they sold a country house to Queen Elisabeth II, in 1981 Honka build the Levi-hotel which was the world's largest log house at that time, an in 2003 they received an order for a 4500 m² log-house in Sochi, Russia. In 2009, Honka built a neurosurgical clinic in Japan, consisting of a main-building with 1400 m² and separate patient rooms. Besides this, Honka won several housing fairs and was awarded of the president's export award in year 2000 (Honkarakenne Oyj - Teirikari, P. 2008; Jäntti et al. 2008, 48; Honkarakenne Oyj 2009).

### *5.2.3 Lapponia House*

The second Finnish case company is Lapponia House, which was established in 1981 in Kemi. The first house was delivered to Sweden in March 1982. This was due to the fact that the founder, Mr. Riihimäki had already gathered professional experience in the housing business in the Swedish market (Lapponia House 2011b; Paasonen, interview 2011). Lapponia offers different kinds of wood houses. Its main product, the thermo log house, has wall constructions which contains thermal insulation between an outer and inner layer of wood cladding. However, the corners of the house can be constructed as in the optic of a traditional log house. This construction was chosen as one of of the most significant product innovations by the Technical Research Centre of Finland (VTT) in 1997. It is also possible to order construction sets which can be assembled by the customer himself. Other offerings of Lapponia comprise traditional log houses, or houses based on a timber-frame structure. Building elements of the timer-frame structure and the Thermolog walls can be also combined to a hybrid structure (Lapponia House 2011a; Paasonen, interview 2011; Lapponia House n.a.).

In 2009, Lapponia's had a turnover of 20 m EUR and an export share of 50%. However, due the economic crises which had a particular effect on the housing demand in certain export countries, the turnover fell to 12 m EUR and the export share declined to 20% in 2010, but both figures are expected to rise again in the following year (Paasonen, interview 2011).

Besides Finland and Sweden, the company soon began serving also other markets, for example, deliveries to the Far East began already in the 1980s. A new factory was opened in Kemi in 1989. During the 1990s, Lapponia House was already exporting to 20 countries. In 1999, Lapponia entered the Russian market, which has evolved to a core market nowadays. One year later, a subsidiary in Germany was founded. However, this was later on closed again and currently Lapponia House has no foreign subsidiaries. Since 2001, Lapponia has also been active in Spain. Today, besides its core markets in Finland and Russia, Lapponia's main export markets are Norway, Sweden, Spain and Portugal. Since its establishment the company has delivered houses to about 30 countries (Paasonen, interview 2011).

### *5.2.4 Vario-Bau*

The Austrian company was originally founded in 1983 and renamed into Vario-Bau Fertighaus GesmbH in 1989. In the same year the production of prefabricated houses was established in Wiener Neustadt. In 1994, the company was relocated to an industrial area of the town where a new factory was opened. The factory was enlarged and

equipped with new production facilities in 2001. In addition, a sampling facility was opened, where customers can choose among different building and interior materials (Vario-Bau 2011). Since 2006, the owner and general manager of Vario-Bau, Ing. Josef Gruber, is president of the Austrian- and since 2010 also of the European Premanufactured Building Association (Meickl 2006; ÖFV 2011)[13].

Vario-Bau produces prefabricated houses mostly in low-energy or passive house standard. In addition, the company offers services as prime contractor from the planning to the realisation phase. Besides producing single-family houses, which account for about 70% of the turnover, Vario-Bau conducts building projects for companies, municipalities and private or public real estate developers, such as terraced houses, office buildings or kindergartens. In 2009, the company had 100 employees and achieved a turnover of 22 m EUR with the sales of about 200 buildings (Vario-Bau 2011b; Rischanek 2009).

The internationalisation process of the company started in the early 2000s. The first steps abroad started with a partner company, whereby Vario-Bau conducted the production, shipment and delivery of prefabricated houses. Through these activities a lot of country specific knowledge could be acquired (Gruber 2011). Since 2006, Vario-Bau is present in South-Tyrol in Italy via an own subsidiary with a model house. One year later, two other export collaborations were established in Italy and one in Switzerland. Further partnerships in Central Europe and Greece are planned (Vario-Bau 2011a). In 2010 ,Vario-Bau had an export share of 17% (Gruber, interview 2011).

### *5.2.5 Wolf System*

Wolf System was founded in 1966 in Scharnstein, Austria. The first constructions were silos and concrete reservoirs for agricultural purposes. The company started early to expand abroad. In 1968, a sales and planning office was established in Munich, Germany and in 1974 a subsidiary with an own production in Leutenheim, France. Wolf System started to produce prefabricated houses in 1975 in Scharnstein. Five years later a wood construction company was acquired in Osterhofen, Bavaria and the office in Munich was relocated there. Further expansion steps in the 1980s comprised the establishment of subsidiaries in Italy, Switzerland, Hungary and England. In the 1990s, Wolf expanded strongly in Central and Eastern Europe, e.g. in the Czech Republic, Poland, Slovakia, Russian and Croatia, but also further in Germany, France and to Tenerife. In

[13] German names: Österreichischer Fertighausverband (ÖFV) and Europäischer Fertigbauverbandes (EFV)

2003 and 2004, the prefabricated houses and wood construction facilities in Scharnstein were extended, the sales of prefabricated houses was expanded and extended in Germany, Italy and the Czech Republic and the production facilities in Hungary and Poland were enlarged. From 2006 on, Wolf System expanded further in to Lithuania, Latvia, Romania, Slovenia and the mainland in Spain, in Austria another concrete construction company was acquired. Further, the steel-manufacturing facilities were extended in Osterhofen and a production facility for wood and steel-manufacturing was established in Russia (Wolf System 2011). After the earthquake in L'Aquila in Italy, Wolf System gained a project to build 20 apartment buildings for about 1600 people (Werthmann 2009).

The product portfolio of Wolf System comprises silos and concrete reservoirs for agricultural purposes, but also for biogas plants and sewage plants. Furthermore, Wolf System builds halls for agricultural, industrial and commercial facilities and prefabricated houses as single family houses but also as office buildings, kindergartens and schools or as terraced houses or apartment buildings. Another business comprises the production of nail-plates for connections in wood constructions, a software to calculate and design roof constructions as well as presses to connect the wood joints (Wolf System 2011b; Wolf System 2011a). Today, prefabricated houses are sold in Austria, Germany, Hungary, Italy, Poland, Slovakia and the Czech Republic (Neuwirth, interview 2011).

Today the company has over 2500 employees (Wolf System 2011c). In 2005, the concrete constructions, silos and halls accounted for about two third of Wolf's turnover and prefabricated houses for about a quarter on group level. With the sales of 612 houses Wolf System was the second largest producer of prefabricated houses after Elk in Austria (Sailer 2006). In 2006, the whole group had a turnover of 372 m EUR and in 2010 of 450 m EUR (Leitner 2007; Konrad, interview 2011).

## 5.3 Case analysis

In this subchapter the companies are first compared in terms of their size and the development of their internationalisation. Afterwards, the motives and facilitators of the internationalisation process, as well as the challenges are explained, followed by their internationalisation approach. Finally, the process these different organisations conduct at foreign expansion is explained. Particularly attention is paid to the question, how they acquire necessary information and learn about new markets, how they train their own employees and their business partners and adjust their products to the requirements of foreign markets. For confidentiality reasons, particular processes and practices from certain companies are not revealed. This is also not required as it is the aim of the study

to outline which organisational learning and knowledge acquisition strategies and practices are applied by companies during an internationalisation process in general.

### *5.3.1 Company size, type of business and development stage of the internationalisation*

From the five case companies, Elk, Honkarakenne and Wolf System, were founded in the 1950s and 1960s, whereas Lapponia House and Vario-Bau were found in the 1980s. Thus, the cases represent a good basis for benchmarking and evaluating the companies' development in terms of turnover or internationalisation.

Wolf System, founded in 1966, is with a turnover of 450 m EUR and over 2500 employees the largest company; however it is a conglomerate business where in 2005 about a quarter of the turnover accounted for the housing business. Today prefabricated houses are sold in Austrian, Germany and five other Middle-European countries. Thus, the Elk group with a turnover of 263 m EUR and 1500 employees is the largest house producer in this study. The production facilities are located in three different countries and it is selling via own companies in six countries. Moreover, the Elk AG has licencees in 20 countries most of them in Europe. Honkarakenne is with a turnover of 58 m EUR and about 300 employees the smallest case company, which was founded before 1970. However, it is in the log house business, which is a niche product in the housing market, compared to prefabricated houses. The company has three foreign subsidiaries, thereof one outside Europe and partner companies in over 30 countries in Europe, Asia and North America. More than half of its turnover comes from international business and a third from outside Europe. Therefore, it is the most internationalised case company. Lapponia House, founded in 1981 and Vario-Bau, originally founded in 1983 with a turnover of 20 or 22 m EUR in 2009 are comparable in terms of founding date and sales volume. Nevertheless, their products differ; Lapponia House's main product is a wooden wall structure including an isolation layer which can look like a traditional log house, whereas Vario-Bau produces prefabricated houses based on a wood frame construction. The companies differ significantly in terms of their internationalisation; Lapponia House already sold their first house abroad, expanded to different countries abroad, also to the Far East already in the 1980s. During its history, the company has been exporting in about 30 countries and, in 2009, 50% of its turnover came from abroad. Vario-Bau's had an export share of 17% in 2010. Today the company has one subsidiary in Italy and a partner company in Switzerland and is further expanding in different countries in Middle and South-Europe, where it has been gathering experience since it started its internationalisation process in the 2000s.

### *5.3.2 Motives, facilitators and challenges for foreign expansion*

The main motives for foreign expansion were to expand with a competitive product on new markets, besides risk diversification through a wider regional spread. For example, to a foreseeable saturation in one market could be reacted by an expansion to new markets, or economic downturns could be better withstood by being present in more countries which are not all equally effected by a decline. Furthermore, first-mover-advantages in terms of higher profits were mentioned as benefit, as well as taking advantage of the development of the Eastern European market after the fall of the iron curtain (Konrad 2011; Paasonen 2011; Rieder 2011). The internationalisation process was in all cases initiated by the founders. Thus, their aspiration to grow the business internationally was the trigger of the development. In case of Lapponia House, the first house was sold to Sweden, where Mr. Riihimäki had already gathered working experience (Paasonen 2011). Mr. Kilkki characterised the founding brothers of Honka who already established the export business in Japan in the early 1970s as following:

> *'They really had the courage to see wide and to let the business grow. They were not too afraid of getting in international business. .... It's very much about the personality. If you can go to Japan and sell here and there without speaking the language, then you must be a certain type of character.' (Kilkki, interview 2011)*

It has also been always an issue for Wolf System to expand on the European market (Neuwirth 2011). Mr Johann Wolf Senior was often away on international business trips and establishing new contacts (Konrad, interview 2011). Also, in the case of Honka, it was an active and innovative network that created opportunities abroad. Further, the company has strong values which are based on its tradition as Finnish log house producer which started from Eastern Finland. These have been serving as solid basis for the foreign expansion (Kilkki, interview 2011).

The European technical approval (ETA)[14] was in two cases mentioned as being supportive for foreign sales, in one case it was considered as additional administrative effort (Gruber; Konrad; Neuwirth; Rieder, interviews 2011).

In none of the case companies it was explicitly considered as a risk to enter a new country. Risks were primarily associated with payment risks, which can be managed with appropriate measures. Expenditures for foreign ventures are rather considered as investments. If a large scale market entry with the opening of an own subsidiary and deployment of new staff would be conducted, this would involve risk. However, this is

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[14] The European technical approval is a proof of the suitability of a construction product according to the meaning of the Construction Products Directive (Deutsches Institut für Bautechnik 2012).

something these kinds of companies cannot afford anyway due to their size (Konrad; Neuwirth; Rieder, interviews 2011). Companies usually start with small investments and proceed depending on the market success (Gruber; Neuwirth; Rieder; Konrad, interviews 2011). Equity investments keep the risk on a low level and if a foreign venture does not succeed, it needs to be stopped (Konrad, interview 2011). Furthermore, it was stated that risk is a matter of risk appetite. It is up to the manager, how much risk he/she is willing to take. Generally, it is advisable to remain modest and realistic when planning new activities (Rieder, interview 2011).

It was stated in all cases conformably that the biggest challenge in a foreign expansion is finding the right business partners or the suitable employees. Since sales, as well as the realisation of building projects are managed locally, it is essential for the companies to have partners or own staff in the country with the necessary competence and motivation. Regarding this, in two cases it was mentioned that if the brand is well-known, the company is often actively contacted by others who are interested in cooperation (Kilkki; Rieder, interviews 2011). This widens the base of potential business partners, and might create opportunities in countries where the company did not actively plan to go. It was also stated that the best performing partner are often those who actively contact the company (Paasonen, interview 2011). Other characteristics or challenges which were mentioned relate to economic issues such as currency risks or recessions, lower average purchasing power, certain business practices, for example, long payment terms, legal issues such as locally much diversified building regulations as, for example, in Switzerland, or bureaucracy. However, today it is relatively simple to export to an EU-country, the export to other countries, for instance, in the Far East involves more bureaucracy (Konrad; Paasonen; Neuwirth, interviews 2011).

There are differences concerning technology and price level as well as relating to the process how single-family home projects are conducted. In certain countries, the houses are generally planned by architects. Then the production process needs to be flexible, so that the houses can be built according to the plans, because people there do not want standardised houses. Hence, the more adaptable one is, the faster he/she will proceed (Neuwirth, interview 2011). Besides being flexible, it is important to be patient and adhere to the export business over a longer period, because it takes time until a partner search is successful. Further, it is necessary to have a certain size, since the process requires resources. Moreover, it is often necessary to change internal structures and processes for the export business; hence one needs to be ready to make adaptations and follow them consequently. Thus, the decision to conduct export business should be taken carefully and the planning should be on a long-term basis, as it takes time until one is successful. If one would decide to withdraw after a year, this would be a sunken investment (Rieder, interview 2011). The issues of patience and consistency also apply to the foundation of a subsidiary. The processes from the establishment of a subsidiary

until sales start rising lasts two or three, sometimes up to five years. After one year an evaluation is not possible (Konrad; Neuwirth, interviews 2011).

Other factors concern language or cultural differences. The final customer needs to be served in the local language. Unanimously, it was stated that it is essential to have someone on site who speaks the language, understands the mentality and knows about the business (Gruber; Kilkki; Konrad; Neuwirth; Paasonen; Rieder, interviews 2011). Honka serves the Japanese market through a subsidiary to take into account cultural and language differences, as well as the time difference (Kilkki, interview 2011).

Since house kits are large in terms of volume and weight, the possibilities to ship them are an important factor for an expansion abroad. Within Europe and up to a range of 2000 or 2500 km, it is no problem for all case companies to ship the housing kits with trucks. Hence, in terms of transport the European countries are a potential market area for various companies, which produce wood-based buildings (Gruber; Kilkki; Konrad; Neuwirth; Paasonen; Rieder, interviews 2011). As soon as the housing kits need to be loaded in containers, constructions which can be fitted in closed containers, such as log walls, or Lapponia's wall construction, offer a clear advantage. Open-top containers are considerably more expensive (Rieder, interview 2011). Thus, in terms of transport also remote markets like the Far East can be served from a production base in Europe without problems, if the construction can be shipped un- or preassembled in closed containers. Further, it makes only sense to establish production facilities abroad if a certain sales volume is exceeded (Gruber; Neuwirth; Rieder, interviews 2011). In general, it causes less complexity and thus makes the adjustment to local requirements easier, if the installation and interior completion work can be also done abroad. Prefabricated houses are delivered in different completion stages. However, at least all elements under the wall cladding must be included in the production. Thus, companies, which deliver only elements of walls and can arrange completion work in the foreign country, have an advantage from this perspective.

The level of previous foreign experience differs. Mr. Riihimäki, the founder of Lapponia House as well as Mr. Paasonen had already worked as expats abroad also Honka recruited one sales director, in that case it was considered as advantage that he had lived as expat in the target country (Paasonen; Kilkki, interviews 2011). The other managers had gained experience in export business through previous functions or acquired it on the job. For example, in the cases of Honka or Vario-Bau, it was the founders who did not have previous experience in international business, who were driving the foreign expansion (Kilkki; Gruber, interviews 2011). Thus, foreign experience may be an advantage, for instance, in particular functions, when it is required to speak the language or have through understanding of the local culture. A driving factor for the international expansion seems to be the attitude of the founder or the mindset of the managers, influenced through the company culture.

### *5.3.3 Internationalisation approaches*

The internationalisation approaches and consequently the learning histories of the case companies differ. Generally, companies worked with partners, such as agents, importers, distributors, licencees and had or have subsidiaries abroad. However, none of the case companies founded a subsidiary for prefabricated houses or log houses without having prior experiences through export business in the housing market or through other businesses.

The development of Elk is somewhat an exception within the cases since it started as trading business, involving import and export business for machinery, technical products and later also log houses. An own production facility for prefabricated houses was established in 1979, 20 years after the companies foundation. Thus, Elk it was internationally active from its inception albeit not in the housing business. With this background the flexibility gained through the trade with Comecon-countries[15] was beneficial for the internationalisation as housing business (Rieder, interview 2011). Moreover, coming from a trading business, the attitude of the founder and the management was very sales oriented. Due to this sales orientation, Elk had high-quality catalogues, advertisements and an effective sales structure. This distinguished Elk from other more technically or manufacturing oriented firms. Thus, it was definitely a facilitator in the international expansion process (Rieder, interview 2011). Elk expanded through the establishment of subsidiaries and the acquisition of Bien-Zenker. The expansion outside Austria, Germany and Switzerland is conducted via a licencee system. However, the original plan was to establish a franchising system. By making Elk's know-how available for partners abroad, the success on the home market, which came also along with a high increase in the market share of prefabricated houses from a few percent to almost 40%, should be achieved also in other countries. Nevertheless, franchising was finally considered as a too rigid relationship with the partner companies. Therefore, the decision fell on the establishment of a licensing system, which ensures that the required quality is provided by the partner companies, but it leaves them enough individuality to fulfil the specific requirements of certain markets (Rieder, interview 2011). Nowadays the share of exports in markets outside Austria, Germany and Switzerland accounts for a few percent of the turnover of the Elk-AG in Austria. Thus, it can be concluded that establishing the sales of prefabricated houses in a foreign country is a time demanding process, which was generally confirmed from several interview partners. However, the strategy of taking small steps keeps the risk on a low level. Strategically developing a market with high investments also bears the risks of high losses (Rieder, interview 2011).

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[15] Council for mutual economic assistance

Also Honka, Lapponia and Vario-Bau market their houses via business partner besides some subsidiaries. Honka has three subsidiaries in Germany, France and Japan. Nowadays within the EU a subsidiary is not a necessity. However, it is beneficial to have a subsidiary to serve the Japanese market (see also 5.3.2). Honka builds direct relationships to importers. Obligations are regulated via a distribution agreement (Kilkki, interview 2011). Lapponia House distributes the houses via importers and agents. Thereby, a partner who fulfils the requirements and shows a good performance may serve as main-importer for a certain country and manage the business with the other importers and agents. A subsidiary in Germany was closed as the market did not develop as expected (Paasonen, interview 2011). Also Vario-Bau is selling via agents or partner companies. If the development in a country is positive the foundation of a subsidiary can be considered. Today Vario-Bau has one subsidiary in South Tyrol, Italy. Concerning the growth through acquisitions, it needs to be considered that it makes only sense to establish foreign production capacity if the existing one is not sufficient. Alternatively, a trading company might be acquired, but this can be also established by oneself (Gruber, interview 2011).

Wolf System markets its prefabricated houses through subsidiaries and also via sales agents who are locally managed. As sole case Wolf System follows as sequential process in their international expansion. Thereby, it enters a new country subsequently with different businesses starting with a niche segment, which is also requires least coordination effort with regard to other construction businesses. The original business and still main line of business of Wolf System is the construction of concrete silos and concrete reservoirs. This is niche segment with comparatively few competitors. Since in that type of construction business few crafts need to be coordinated it is relatively easy to manage. Thus, this is always the first business segment with which is started on a new market. Afterwards, the hall construction business is established. This requires already more coordination, but it is still a B-2-B market. As more experience is gained, Wolf System starts with the prefabricated housing business. This business serves the end-customer and has the highest coordination effort, since various crafts, such as electricians, plumbers, painters, etc. need to be coordinated. Moreover, this approach constrains the risk because as it is the last business at the market entry, it is not absolutely necessary to achieve high sales figures from the beginning on (Konrad; Neuwirth, interviews 2011). However, the growth process is very country specific and influenced by several factors, such as the local employees, the market, the purchasing power, the attitude of the people towards prefabricated houses and the price level. Hence, it is not possible to predict which volume will be reached ten years from now when a business is started (Neuwirth, interview 2011).

Wolf System acquired the site in Osterhofen in 1980 and in the 2000s another Austrian concrete construction company. However, this did not concern their prefabricated

housing business. Acquisitions are principally an option to grow, if the conditions are favourable. However, a licence system in the prefabricated housing business would require a higher degree of standardisation. Hence, it would not fit the requirements of Wolf System as their houses are individually designable. Moreover, the business should be rather managed within the company (Konrad; Neuwirth, interviews 2011).

As mentioned in the case descriptions in 5.2, Elk, Honka and Wolf System conducted larger building projects in foreign countries. Project business seems to be suitable approach in order to gain first experiences in the country. Further, it benefits the company as the project creates awareness and serves as reference object. For example, due to the building project in L'Aquila, Wolf System could gain much more orders in Italy. This reference object served as proof of performance and benefited colleagues also in other countries (Konrad, interview 2011).

### *5.3.4 Organisational learning, knowledge acquisition and the management of foreign expansion*

This subchapter comprises several issues of a foreign expansion process, including the management of the foreign business, the initiation of the expansion, information gathering, institutional support, the search and training of partners or employees and the adjustment of the houses, marketing and sales practices to the foreign market.

At Elk, Lapponia House and Vario-Bau the foreign business is managed via export managers; at Vario-Bau also the owning managing director is involved in export business (Gruber; Paasonen; Rieder, interviews 2011). Honka has five sales regions that are supervised by sales directors. One sales region comprises new markets (Kilkki, interview 2011). At Wolf System the foreign business is managed through subsidiaries. The prefabricated housing business is led by managers in the particular subsidiaries, who are also responsible to establish and manage relationships with sales agents locally. Based on a regional segmentation, the subsidiaries are assigned to the head office either in Austria or in Germany (Konrad; Neuwirth, interviews 2011).

The case companies start a foreign expansion differently. In some cases the company actively decides to plan the entry in a certain market in other cases they are contacted by interested partners. Contacts in a certain country may already exist or may be established via trade fairs. Sometimes there are unsolicited requests from customers in a certain market. In this case, it needs to be evaluated, if this would be just a single project, or is there actually a market (Konrad, interview 2011). Firms, who are interested to cooperate with Elk, may send a questionnaire which is available at the homepage (Elk building systems 2012). Earlier finding a partner was more an active search for Elk; nowadays many requests come from potential partners, as the company became interna-

tionally recognised and also due to the webpage (Rieder, interview 2011). Similar is true for Honka. The company is recognised for log houses or wooden houses and it has an extensive network with relations to many countries. Thus, it is not difficult to find potential business partners if the company wants to expand somewhere (Kilkki, interview 2011).

It is essential to have someone on site, either a sales agent or a partner company. One can start with a contact person, evaluate the market and attain the first sales. A local partner needs experience in the field, knowledge of the local building and of safety precautions and language skills. Having bilingual partners simplifies the communication on the construction site and helps to understand the local culture. Hence, someone is needed who speaks the local language; to cope with English is normally not sufficient (Gruber, interview 2011). Nowadays, it is important to provide a comprehensive service which means delivering turnkey projects and sometimes even additional services as, for example, maintenance (Kilkki; Paasonen, interviews 2011). Hence, it is important to have partners who are able to provide this service and can coordinate the necessary work locally with subcontractors. Ideally, the partner acquires a model home for representative purposes (Paasonen, interview 2011). Partner firms should have capabilities in sales, designing, in engineering and also in construction. This could be, for example, mid-size construction groups (Kilkki, interview 2011). Also essential is the reliability, trustworthiness and integrity of a business partner. A partner can be also a hindering factor if he is not doing what he is supposed to do (Rieder, interview 2011).

Besides trade fairs, ways to find business partners are through websites or web portals, advertisements in newspapers, or contacts from the building material industry (Gruber, Paasonen, interviews 2011). The partner search can be either active or passive. However, the best performing importers often approach the company actively (Paasonen, interview 2011). At Wolf System most managers of a subsidiary are recruited locally. Subsequently, it is their task to set up a local sales organisation including establishing and managing relations with local sales agents (Konrad; Neuwirth, interviews 2011).

At Elk, the application for a partnership requires the filling of a questionnaire and a cost estimate for the construction with local prices (Elk building systems 2012). The selection of a partner involves a mixture of explicit knowledge in files but also implicit knowledge. In a small department this can be easily handled. In the end, intuition and practical experience influence the decision (Rieder, interview 2011). Honka became more analytical in the assessment of partners and business opportunities with the time. A process was created, in which a letter of intent is set up with the potential partner. Included in this process is the draft of a preliminary business plan, a market analysis and treating certain issues on technical requirements and pricing. It is crucial that the candidate considers all these issues and there is an actual potential for business. The

growth path needs to be achievable for the partner. Subsequently, it is decided whether a distributor agreement is signed or not. The issue is decided centrally by the management group, since it needs to be ensured that the expansion step is reasonable from various points of views. For example, is it possible to meet local requirements in technical issues? Further, are the necessary resources available in different departments? Finally, does the expansion step support the company targets? To deliver the first houses involves a lot of work and cost. Thus, the country needs to provide an opportunity in order to benefit from the effort (Kilkki, interview 2011).

In the following, characteristics which are considered important in managing foreign activities are covered. However, depending on the organisational structure and the particular functions, the required characteristics differ.

Wolf System manages foreign business through subsidiaries; thus, management capabilities are essential. People are recruited locally as they need to understand the local language, culture and business customs. It is essential that the people are willing to take responsibility, have sales capability and local contacts. Further, they need to be comfortable with the company culture (Konrad, interview 2011). Regarding technical competence, the candidates should have some experience in the construction sector either in the technical part or in sales. They receive further training for their tasks at headquarters (Neuwirth, interview 2011). In order to build relations with new business partners, or stir networks of importers and agents, as in the case of Honka, experience in international business is important. The person needs to be socially flexible and able to cope with people in various markets. It is not a requirement that he or she comes from the construction sector, but the candidate should be able to influence the traders to develop the business (Kilkki, interview 2011). Knowledge of the local language and cultural flexibility are generally considered to be an advantage. Also sales capabilities, willingness to travel and the motivation to show interest in the business partners and their needs are essential (Konrad; Paasonen; Rieder; interviews 2011).

All companies provide some kinds of training to business partners or new employees to make them familiar with technical issues or administrational issues, as well as company processes. Wolf System provides new managers of foreign subsidiaries with a training which lasts about half a year at headquarters. The training is adapted according to the requirements while considering the background of the new employee (Konrad; Neuwirth, interviews 2011). Similarly is done at Honka, wherein a new manager needs to get acquainted with several issues during an internal period at headquarters. Further, in order to provide construction training to new business, partners' foremen are sent from Finland to assist in the construction of the first log houses (Kilkki, interview 2011). This is also done at Lapponia House, additionally informal sales training is provided to new business partners as well as briefings for price offer estimations

(Paasonen, interview 2011). Also, Elk and Vario-Bau provide trainings concerning sales, construction and interior construction (Gruber; Rieder, interviews 2011).

Either before actively searching for a partner or as the issue of a market entry has been raised through an interested firm, the companies conduct a market research. Various questions need to be answered before a market entry can be conducted, at first: is there an existing or a potential market for wooden houses; further, how large is the market and can it be served with the own product? In more detail, what is the annual number of private housing projects, how the buildings are constructed, what the price level and the general level of wealth is like in the country? Is the climate suitable for wooden buildings? How competitive is the situation especially with regard to wood-based buildings and how are wooden buildings regulated in the building regulations (Gruber; Kilkki; Neuwirth, interviews 2011)?

The attitude and approaches towards market research and particularly market reports differ considerable between the case companies. Getting information through personal conversation or via network partners was mentioned by all interview partners. Some managers find market reports useful, to get a first idea about the volume and structure of the housing market. However, others consider them useless or unreliable (Gruber; Kilkki; Konrad; Neuwirth; Paasonen; Rieder, interviews 2011). Further, even though market information on the housing business is often available, it does not contain information on niche segments, such as the log houses (Kilkki, interview 2011).

> *'A market report is comparable with a tourist guide. It provides a general overview, but you need to explore the country yourself with your particular questions.' (Rieder, interview 2011)*

Generally, it was mentioned that a mixture of personal contacts, reports and personal experience is used to get the required market information (Gruber; Kilkki; Paasonen; Rieder, interviews 2011). It is a long process to clarify several issues such as pricing, technical requirements, custom duties, etc.:

> *You can do a good jump into a country and see if something happens, but if you want to do it properly, it is quite a lot of work. (Kilkki, interview 2011)*

Most of the companies consider institutional support for foreign expansion useful, and use it at least occasionally. In Austria, it was mentioned by the managers that they use offerings of the Austrian Chamber of Commerce[16] more or less frequently. It provides information on particular issues concerning foreign business, additionally they provide assistance in tax and legal issues (Gruber; Neuwirth, interviews 2011). Further, they offer the possibility to join a group exhibition stand at fairs or to take part in fact-

[16] In German: Wirtschaftskammer

finding missions in several countries (Gruber; Rieder, interviews 2011). Both Finnish case companies use the services of Finpro, which is an association providing services for Finnish companies during different phases of internationalisation (Finpro 2011). In the case companies it was mentioned that they occasionally obtained country information or market reports or discussed export opportunities (Kilkki; Paasonen, interviews 2011). None of the companies in Austria or Germany used the services of consultancy companies (Gruber; Konrad; Neuwirth; Rieder, interviews 2011). With the exception of Finpro, also in the two Finnish cases consultancy services were used very rarely. Some small local consultancy services can provide connections to local businesses and sometimes approach the company actively (Kilkki; Paasonen, interviews 2011). Big consultancy services are considered too expensive to be engaged for market research (Kilkki; Rieder, interviews 2011).

Products are based on the technical standard of the home market, for example, the European technical approval (ETA) and ÖNORM[17], and then adjusted to local requirements (Gruber; Neuwirth; Rieder, interviews 2011).

In all cases it was mentioned that the knowledge on the local norms and building regulations, for instance, concerning fire protection, needs to be provided by the business partners or by the subsidiaries. Depending on the flexibility of the housing system the design is done centrally and the plans can be locally adjusted according to the customer's requests, while the planning is done locally. Sometimes the design process of the houses is coordinated with the local architects of the customers (Gruber; Paasonen, interviews 2011). The information gathering is an important, albeit quite demanding process, which makes the delivery of the first houses in a new market work- and cost intense. Thus, it needs to be carefully considered if a market is entered, otherwise the effort would not pay off (Kilkki, interview 2011). In summary, at least the structural planning is done in the factory in the home country, based on local information. The walls or components are produced and delivered to the site. The assembling of the house and the further finishing work is generally organised by local subsidiaries or business partners. This has the advantage that the local partner, who speaks the language, and is actually constructing the house, needs to assure that the requirements are met. Thus, the manufacturer need not be involved in the whole process.

Marketing issues such as design of catalogues or advertisements are generally managed in cooperation between the manufacturer and the partner company or the local subsidiary. Both marketing and advertising are conducted centrally in the head office of the manufacturer and adapted to local requirements, for example, of the subsidiary. Another option is that partners are provided with corporate identity instructions and design

[17] Austrian Standard

their material by themselves. In that case, it is normally checked by the manufacturer subsequently (Gruber; Kilkki; Konrad; Neuwirth; Paasonen; Rieder, interviews 2011).

Following methods were mentioned in the interviews as means for information exchange and coordination: budget planning, reporting, phone calls, e-mails and regular visits and e-meetings (Gruber; Kilkki; Konrad; Neuwirth; Paasonen; Rieder, interviews 2011). However, there are certain cultural differences with regard of communication methods. For example, reporting works very well in Germany but is not always followed in other countries, where personal communication appeared to be more effective (Paasonen, interview 2011). In general, a high emphasis was put on the importance of personal contacts. Business partners, importers or agents need the contact and the support in order to keep the business going (Kilkki, interview 2011).

The languages which are commonly used in all cases to communicate with subsidiaries or business partners are either the language spoken at headquarters or English. At Honka and Lapponia House also other languages are spoken in the company, for example, by the export managers (Kilkki; Paasonen, interviews 2011). People who need to deal with other businesses or the end-customer in the target county need to speak the local language. The local documentation of the projects is mostly not in English (Gruber; Kilkki, interviews 2011).

The approaches and the degree of formalisation of the procedures of companies, preparing for a foreign expansion, vary significantly. Wolf System conducts the expansion in a certain sequence of steps, starting with the concrete container business, then establishing the hall construction business and entering with the prefabricated housing business as last step. Thereby, it acquires market and technical knowledge, as well as contacts to business partners thanks to the earlier steps. Elk set up a questionnaire and asks for a cost calculation prior to an invitation where the issues concerning a potential partnership are discussed. Honka developed a more analytical approach over time, including a systematic study of the demand and the conditions in a potential market. Additionally, they demand from their partners to draft a business plan and address certain requirements, such as technical issues. At Vario-Bau a concept for the foreign expansion is drafted, based on a thorough market research (Gruber, interview 2011). Even though it is difficult to draw general conclusions from the cases, some assumptions can be made. How structured and analytical a company's approach is to a considerable extent depends on the management's attitude. Further, as the number of companies interested in cooperation, and subsequently the number of markets where the company could expand grows, they set up more structured procedures to evaluate the opportunities as the examples of Elk and Honka show. Following statement brings the idea maybe best to the point:

> *We are getting more and more analytical. Because it is an investment and we have to know (it); it is a necessity. It's better to know before. (Author: Before what?) Wasting money. (Kilkki, interview 2011)*

Based on the last paragraph, it can be concluded that generally previous foreign ventures resulted in learning effects, even though this was not explicitly stated in every case. For example, in principal the basic approach for a foreign market entry can be kept equal. However, then there are many specific characteristics, for example, concerning the legal regulations or the partnership. But it is possible to establish a basis by drafting a concept for the market entry. Further, it was mentioned that intuition and practical experience are determining factors in the partner selection (Gruber; Rieder, interviews 2011). Thus, experiences with foreign activities influence the approaches, how companies prepare for foreign activities as well as their decisions, for instance, concerning the selection of business partners.

# 6 CONCLUSION

## 6.1 Theoretical findings and contribution

The study sheds light on organisational learning and knowledge acquisition in the internationalisation process of manufacturing-based entrepreneurial firms. The case companies which were investigated are producers of wood-based prefabricated buildings. It could be shown that the idea of premanufacturing houses and shipping them abroad is almost 200 years old. The particularity of the study is that the case companies have a strong manufacturing and engineering background. Further, companies which construct family houses predominantly operate on national markets, which are determined by national norms and regulations. Considering this background, it was the aim of the study to get a better insight how prefabricated house manufacturers develop organisational learning capabilities, acquire and transfer knowledge for their internationalisation. How do these companies learn about the characteristics and requirements of various, and in some cases very distant markets, considering several challenges, such as differences with regard to culture, language or local regulations? The study also contributes to different theories of internationalisation, such as the Uppsala model, the network approach and the theory of international new ventures which were outlined in order to compare the firm's internationalisation approaches with these theoretical frameworks.

As proposed by the *Uppsala model*, the case companies acted indeed quite risk averse. At the one hand, it was stated that activities abroad were not associated with risks as such, in other words they were only connected to payment risks, which can be handled with appropriate measures. However, generally the companies deployed approaches which were supposed to keep the risk on a low level. Also low sales figures of the foreign business over a period of time would not pose a risk for the overall financial situation of the company company. In addition, a withdrawal from the market would be also possible without problems. In general, the concept of *psychic distance* seems to apply. Especially when the companies actively search for opportunities abroad, at first they rather target countries with the lowest cultural and geographical distance. However, if opportunities arise, for instance, through unsolicited offers for cooperation, for example, in the case of Honka and the Japanese market, or through connections in the company's network, also distant markets are targeted. The assumption that a market entry is conducted in a certain sequence of stages, the *establishment chain*, can be only confirmed to a certain extent. In fact, in all cases sales agents were the first means to sell products on new markets. Local production facilities are in general considered as useful option, if a certain volume is sold on the local market. However, this is only the case at Wolf System and Elk so far. Despite of this, the case companies generally de-

veloped their own methods for approaching new markets. Thereby, they show clear preferences for certain market entry modes. For example, Elk has set up a licensing system to manage the relations with foreign partners. At Wolf System the market entry is always managed locally through own employees who set up a subsidiary. Consequently, also the relations with sales agents are managed locally. Honkarakenne sells via importers who are managed through sales directors as well as through local subsidiaries. Thus, which *market entry modes* are applied seems to be mostly a matter of the management's experiences and preferences. For instance, at Wolf System *subsidiaries,* which allow for a higher level of control, are preferred. It was also stated that the necessity of having a local subsidiary is determined by factors such as differences regarding time and culture, particularly concerning the local language as well as local construction regulations. Today, in rather homogenous economic zones like the EU, subsidiaries do not offer the advantages as they do in distant markets as, for example, Japan. Applied governance structures are *contractual agreements* such as *licence contracts*, as in the case of Elk, and *distributor contracts* in the other cases. They allow for a moderate level of control and require only a low level of commitment (cf. Johanson & Wiedersheim-Paul 1975, 307; Blomstermo & Sharma 2003, 25). Additionally, it can be concluded that also *obligational contracting* is applied as finding suitable partners for well-functioning long-term business relations is considered essential.

The main finding of the study is that the market knowledge does not need to be acquired incrementally by own employees through a rather slow process. Therein, the findings clearly contradict a central assumption of the Uppsala model. In the examples, the companies either acquired knowledge through hiring local employees, as it was the case of Wolf System, or, like in all the other cases, the companies acquired the necessary knowledge on local conditions through *symbiotic relations* with partner companies (cf. Zettinig & Benson-Rea 2008, 356; figure 5).

| Knowledge, capabilities and resources for the target market | |
|---|---|
| International expanding house manufacturer | Local partner companies |
| Design and construction capability<br>Brand value<br>Marketing capability | Knowledge on<br>- local building regulations and other legal issues<br>- climatic conditions, building customs and customer preferences<br>- language, culture<br>Existing customer relations and access to local sales channels |

Figure 5 A model of gaining market access through symbiotic relations

In these cases, market access and knowledge on local regulations are traded for the companies' design and production capabilities, as well as their brand value. The latter is concluded based on the statements that as well-known brand, the company is more often actively approached by interested potential business partners. Thus, the manufacturing companies do not loose time by acquiring the relevant market knowledge by themselves, and thus, they do not need to commit their limited resources more than necessary. On the contrary, the business partners use complementary advantages for their mutual benefit (cf. Etemad & Wright 1999, 6).

However, at least the case of Wolf System confirms the gradual internal knowledge development as a market is entered sequentially with several business lines. After the initial market entry with the concrete construction business, experience and knowledge is developed internally through the construction of halls, before the market is finally entered with the prefabricated housing business as most complex business line (figure 6). Thus, this approach conforms to propositions of the Uppsala model with regard to the gradual knowledge development but not concerning the market entry with a subsidiary.

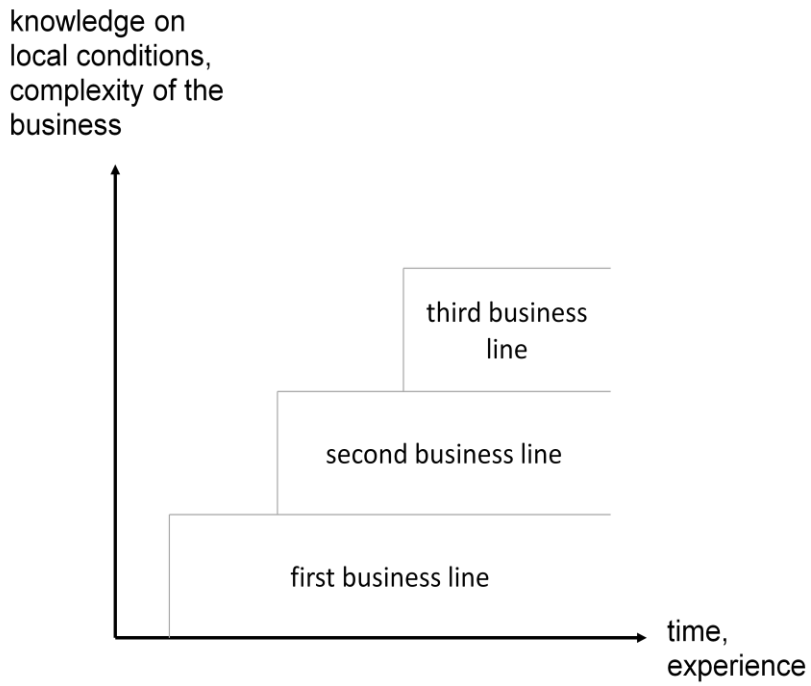


Figure 6 A model of a gradual internal knowledge development

In total, the study supports the influential role of company relations as suggested by the *network approach*. Through network partnerships, companies could gain the required 'insider' knowledge (cf. Fletcher 2008, 963). Network ties are supportive for information gathering and knowledge development, which enables companies to quickly benefit from business opportunities on the home as well as on foreign markets (cf. Zhou et al. 2007, 685-686). Especially in the case of Honka, it was stated that several opportunities for foreign business arose through the company's network. Therefore, the companies' network ties can be considered as valuable intangible market assets (cf. Johanson & Mattsson 1988, 295). Concerning the degree of internationalisation of the market and the firms, the case companies took a leading position in a market which is internationalised only to a quite limited extent. Thus, the companies can be considered as *early starters*. In this situation knowledge development and making adjustments for the cooperation with the foreign partner are essential. Further, also agents are rather deployed than subsidiaries as this minimises the need for knowledge acquisition and facilitates product adjustments within a short time range. Also, the established market position of the business partner can be utilised (Johanson & Mattsson 1988, 298). All these propositions can be confirmed in this study.

The case companies do not comply with the typology of a *born global* which have a strong emphasis on knowledge-based resources and generate sales in various countries soon after their inception. However, all these companies had been involved in some kind of foreign business or export activities early on or at least some years after their foundation. Hence, they do not comply with the typology of a *born-again global* either,

which suddenly internationalised after restraining on the home market over years. Elk emerged from a trading company which was internationally active early on, not as producer of wood-based houses though. Lapponia House exported its first house; therefore, it can be classified as an *instant exporter* (cf. Hurmerinta-Peltomäki 2004, 72). Honkarakenne exported its first cottage a few years after its foundation. Wolf System also expanded to Germany and France in its early years, even before the prefabricated housing business was established. At Vario-Bau, the time span from the first production of prefabricated houses until the start of foreign activities lasted more than a decade, which is the longest period among the cases. Therefore, it could be classified under the quite broad category of a *regional firm* as its main market is still the domestic market (cf. Chetty & Campbell-Hunt 2004, 68-69). However, all these cases show certain attributes which are distinctive for the phenomenon of *international entrepreneurship*. All companies were, and except Honkarakenne, still are family-owned businesses and the founders played an influential role in the internationalisation process (see 5.3.2). Further, the companies are innovative concerning their designing and production capabilities, they proactively approach international opportunities and are willing to dedicate resources to a certain extent to foreign ventures (cf. McDougall & Oviatt 2000, 903).

The concept of *dynamic capabilities* can be considered as suitable approach to study the internationalisation process of manufacturing-based companies, as it concerns organisational and strategic processes for the acquisition, integration and rearrangement of resources in a changing market environment. Organisational learning in the internationalisation process is based on the companies' and their members' experiences. Compared to learning through experiments, experience-based learning brings the difficulty of the need for causal relations to be ascertained under the background of a complex environment (Levitt & March 1988, 333-334). *Experimental learning* will normally not take place as learning happens, for instance, by conducting building projects or establishing partnerships within a particular environment, but not through systematic alteration of certain conditions. If successful approaches to solve problems, like how to acquire the information on local building regulations were repeated, it this would be referred to as *behavioural trial-and-error learning*. If new insights lead to the development of new causal models, for instance, how the design process of family houses is normally conducted in a certain country, it would be referred to as *cognitive trial-and-error learning*. *Improvisational learning* occurs as the companies need to solve several issues in the course of a building project within a particular setting abroad. Hereby, the companies gain new insights by working on problems, even though the primary goal is the finalisation of the project not knowledge creation.

*Double-loop learning* involves changes in the internal and external environment of the firm, like the change of norms, assumptions or strategies. The findings indicate that double-loop learning processes take place to a certain extent in the internationalisation

process of prefabricated house manufacturers. Due to differences in building regulations, languages, customer preferences or the way how the design and construction process of family houses is conducted in other countries, the companies need to adapt to these differences. Thereby, the more adaptable a company is, the faster it can proceed on a new market (Neuwirth, interview 2011). Also, Rieder (interview 2011) emphasised that it is essential to be willing to change established procedures in order to successfully conduct export business. The results conform with Eriksson et al. (2000, 30-32), as companies in an international environment are exposed to a wide range of business actors and institutional environments. Further, business abroad might also lead to unexpected failures. Both reasons can affect that established practices and assumptions need to be reconsidered and altered and thereby lead to double-loop learning effects. Further, local adaption often happens through cooperating with a local partner. Thus, the companies need to develop capabilities to evaluate potential business partners and subsequently manage the relations with them. Especially, at the beginning this seems to be done more intuitively. Elk and Honka, which have been longer on the market, developed more analytical procedures and formal business planning to evaluate the business opportunities with potential partners. Hence, if organisational assumptions or strategies are altered, as they are incompatible with the existing *theory-in-use*, double-loop or higher level learning occurs, which is a more cognitive process compared to lower level learning. Further, as stated above the companies generally developed their own approach how to expand abroad whereby they normally favour a certain kind of market entry mode. This indicates that managers develop a *dominant logic* how to pursue a foreign expansion process. As a present conception of management processes or a learned problem solving behaviour, a dominant logic eases decision making in a complex situation, such as a foreign expansion process. However, it bears the risk of preventing a required flexibility, or not taking into account environmental conditions appropriately and thus resulting in unbeneficial decisions. Deploying a wider *range of market entry modes* would implicate more *variation* and thereby positively contribute to the organisation's learning. On the other hand, this might induce too much complexity in the internationalisation process. Consequently, a higher amount of exploration could paralyse the organisation through the need of excess coordination. In conclusion, by developing and deploying certain approaches the companies seem to balance *knowledge exploration and exploitation* in their internationalisation activities and thereby avoid *competency traps*. However, through reassessing and further developing their approaches, the companies avoid inefficiencies and being bound to local optima by overemphasising knowledge exploitation.

*Personal contacts*, *experience* and *(tacit) market knowledge* are essential in the companies' internationalisation process, this conforms a central aspect of the Uppsala model. The majority of the generated knowledge is created in connection with a particu-

lar place and time and shared between the people through simultaneous interaction (Nonaka & Takeuchi 1995, 60). The case companies deploy various forms and strategies of learning and knowledge acquisition. Through first building projects, for instance, in the case of Elk, Honka and Wolf System, the companies could create contacts and gain first experiences on a foreign market. In contrast to Wolf System, where knowledge is acquired internally and through the subsequent establishment of business lines in subsidiaries, in the other cases the companies form partnerships. Thereby, experience is considered as essential for selecting the appropriate partners or supervising an international network of distributors.

As well as the formation of alliances or partnerships, also *absorptive capacity* can be considered as *dynamic capability*. It refers to processes which concern the *acquisition, assimilation, transformation and exploitation of knowledge*. The ability to comprehend and absorb the knowledge of a particular business partner is termed *partner-specific absorptive capacity*. As in most of the cases local knowledge comes from business partners in the target country, partner-specific absorptive capacity can be considered as essential success factor. *Knowledge transfer* happens partly through formal procedures such as budgeting, reporting or meetings. However, the importance of personal contacts was strongly emphasised by all case companies. Constant interaction happens through regular visits or e-meetings, phone calls and e-mails. This exchange of explicit information refers to *combination* according to Nonaka's (1994, 19) model of knowledge creation. Further, *routines* are taught to other organisations by providing them with *on the job training*, for example, by sending foremen to assist in the construction of the first houses, or in sales. At Honka and Wolf System new managers pass several departments during and *internal training phase* in which they acquire the necessary knowledge for their new task. Thus, the companies developed effective ways of transferring tacit knowledge through *socialisation* (cf. Nonaka 1994, 19). Finally, it can be concluded that companies which conduct business abroad attain successes and failures, and consequently they learn and improve their routines and administrative structures (Eriksson et al. 2000, 29).

## 6.2 Managerial implications

From a managerial perspective, the study describes, how family-owned companies, with a manufacturing-background operating in the housing sector, successfully establish business abroad. This is especially remarkable, as in this branch, a high level of local adaption and consequently knowledge on local conditions is essential. Further, these entrepreneurial companies do not have the resources to seek support from big consultancy services or engage in large investments. Two interesting strategies were found

concerning how the companies accessed the required knowledge and successfully expanded abroad. The more common strategy is that they do not carry out all activities in the target country such as planning, construction, interior finishing on their own but they delegate these issues to a certain extent to local partners. Thereby, the partner companies serve as source, for example, for local building or working regulations, they deal with the customers and organise the local assembling of the house. Hence, the manufacturing company can get access to new markets by complementing its design and manufacturing capabilities with the knowledge of the local culture, language and regulations of local business partners. In general, the establishment of local representations through distributors facilitates site-specific customisation. Thereby, the distributors' market knowledge and reputation is an essential part of the value proposition to the customer (Chetty & Campbell-Hunt 2003, 810). Further, the housing market can be considered very challenging, with respect to the various specifics concerning building regulations or the advice and service, which need to be provided for the end-customer. Thus, the conclusion can be made that this can be a viable strategy for various manufacturing-based companies which want to expand to new markets that require local adaptation. In this case, the learning of the company concerns the following main issues: how can a business partner and a potential market be effectively evaluated, and how should the work and the information flow be organised?

Market reports can give a first overview of a market, also consultancy services from institutions such as the Chamber of Commerce in Austria or Finpro in Finland can be helpful to get a first idea of a market or get some local contacts. However, for a thorough evaluation of a market, tacit local knowledge is required. Business consultancy services are considered as expensive and of limited value, if they do not come from the particular branch, since they need to be able to answer specific questions or establish contacts in the market.

Experience was also considered essential for selecting business partners. However, companies, such as Elk or Honka, who have been longer in export business also deploy some kind of formal business planning to evaluate a potential partner. This should ensure that the companies have a common perspective regarding future business and the company does not invest its time and other resources in unrealistic or non-profitable projects. Especially, the first projects in a country require a comparable high effort for acquiring the necessary information and coordinate the work with the business partner, which needs to be considered before starting a business. However, first projects are also a suitable way to gain experience in a country and establish contacts. Larger or prestigious projects also help the company to gain credibility and thereby support further expansion steps.

As the design and construction process of a house is quite information intense and also requires a lot of coordination, there is a continuous ongoing communication be-

tween the manufacturer and the local partner. This has a positive effect on the organisation's ability to learn from each other, since it facilitates the development of a common knowledge base, and thereby enhances the partner-specific absorptive capacity. Further, an overlap in an organisation's knowledge base, also referred to as *redundancy of information*, facilitates not only the sharing of tacit knowledge and the establishment of mutual trust, but also enables the organisation to deal with various contingencies (Nonaka 1994, 28-29). Applied means for communication and knowledge transfer are regular visits, e-mails, phone calls, e-meetings, beside budgeting and reporting. In order to transfer certain skills companies provide trainings for their partners, for example, sales training or sending foremen to teach the local assembling team. In general, *organisational learning in alliances* is influenced by the organisational culture, the extent of organisational slack which is already in place and the senior management's commitment to learning. In order to benefit from newly acquired knowledge, it is essential that experiences and mindsets are shared through training programs and efficient communication systems (Luo 2000, 373-374). In this kind of setting, which requires intense interaction with the business partner, the coordination effort can be decreased and the efficiency can be improved to a certain extent if clear processes are defined and responsibilities assigned. However, the design and construction process of a house cannot be fully standardised. Further, also the establishment of a common knowledge base, trust and the transfer of required skills will require a certain amount of time. This needs to be considered, when an internationalisation with a business partner is planned.

The second strategy which was observed concerns a *sequential market entry*. Similarly as in the *focus-and-grow strategy* (see 2.3.2) a company first concentrates on a certain business segment in its internationalisation effort which requires the least coordination effort and need for local adaptation. As the company gains experience it follows with other business segments. This strategy allows the company to manage the complexity during a market entry better and minimise its risk, since further commitments are made based on a higher knowledge level. Thereby, knowledge or market exploration is balanced with market exploitation, which makes it a powerful business and learning strategy at the same time. This also conforms with the dynamic capability perspective that postulates a dynamic evaluation of gains and losses and to maintain a balance between current and future capabilities (Knudsen & Madsen 2002, 497). When a market is entered with own subsidiaries, hiring employees locally has the advantage that they speak the local language, are familiar with the culture, and, depending on their background, know the relevant norms and regulations for the business. This approach may also have the advantage of lower labour costs. The required skills and knowledge can be acquired during an *internal training period* at headquarters. The latter is also a useful tool to train new managers or employees who were hired, for example, because of their international experience, but lack, for instance, the knowledge in technical is-

sues. However, also in this case sufficient time must be planned, since the hiring and training of managers and employees, establishing a subsidiary, getting the necessary systems in place and acquiring first market experiences requires time.

Hence, in every case the establishment of foreign business requires at least a mid-range time frame, as long it is not constricted to single projects, in order to reap the benefits. Further, also sufficient resources need to be provided. Another essential success factor is the flexibility and willingness to adapt the products but also the internal processes to the requirements of the foreign business. With regard to the choice of the market entry mode, it could be observed that companies usually deploy a particular approach in their foreign expansion process, which indicates that the decision is based on an underlying dominant logic (see 6.1). Before entering new markets also alternative options, such as acquisitions, the foundation of a subsidiary or certain kinds of contractual agreements, should be considered and evaluated in order not to miss beneficial solutions. This increases the flexibility and prepares the management for several contingencies.

## 6.3 Limitations and outlook

The study focused on organisational learning the internationalisation process of wood-based prefabricated building producers. Since the house construction business is a challenging business environment concerning the required local adaptations, the results can be also applied for other branches of manufacturing-based industries to a certain extent. However, it would be promising to investigate if and how companies form symbiotic relations with local partners in order to get access to local market knowledge and serve the customers in other manufacturing-based branches or also in other industries. Further, it would be interesting if in other branches, which are less complex in the completion stage and correspondingly require less particular market knowledge, a faster internationalisation process can be observed showing more similarities with the born global or the born-again global typology. Additionally, it would be worth investigating if multi-branch enterprises occasionally deploy a sequential market entry as learning and risk management strategy in the foreign expansion process.

It was shown that it is a long process until export operations or subsidiaries reach a certain sales volume. This was apparently due to the fact that most of the required market knowledge is tacit and its acquisition is correspondingly time consuming. Thus, from a managerial perspective it would be interesting to investigate, how this process could be eased and accelerated, for example, by clearly separating the manufacturing and the assembly process and improving the management of the interfaces between two business partners. Further, as the selection of an appropriate business partner is consid-

ered essential, more research is required on suitable measures and processes concerning the evaluation of potential business partners. One aspect which has not been covered in this study is the role of trust. This can be considered to have a crucial influence on the cooperation and the learning processes in the partnerships. Thus, more research should be conducted on the influence of trust in these kinds of symbiotic partnerships while providing examples how it is established.

The managers of those companies which have the geographically most dispersed sales regions stated that it makes it easier to be known in the market, and that they quite often have the opportunity to choose from potential partners. Hence, it would be interesting to investigate if these companies deliberately put an emphasis on brand building, or in how far brand building measures positively influence a company's internationalisation process.

# 7 SUMMARY

The study investigates organisational learning and knowledge acquisition of wood-based prefabricated building producers as examples of manufacturing-based entrepreneurial companies. Through geographic expansion a company can grow and create additional value. However, it also creates challenges as the existing knowledge and capabilities concern the home market. Thus, learning and knowledge accumulation are central aspects in the internationalisation of a firm. For this study, producers of wood-based prefabricated buildings were chosen as case companies, because this group serves as interesting research object for various reasons. The management and the employees have a strong manufacturing and engineering background and traditionally started with the construction of single-family and recreational houses, log houses, saunas and cottages on national markets. Further, the housing sector is characterised by national norms, regulations as well as local building styles. The companies can be considered as entrepreneurial since entrepreneurship refers to *'the act of new entry'* concerning new products, services or markets and it describes a behaviour which is characterised by proactiveness, innovativeness and the willingness to take calculated risks. Based on this background, it was investigated how these manufactures of wood-based prefabricated buildings develop organisational learning capabilities, acquire and transfer knowledge for their internationalisation. From a practical point of view it was revealed how these companies cope with language and cultural differences, manage to adjust their houses to local building regulations and meet customer preferences in distant markets.

The theoretical framework of this research constitutes the *knowledge-based conceptualisation of internationalisation* which combines the *traditional internationalisation process*- as well as the *international new venture perspective* based on their commonalities in the *knowledge-based view of the firm*. As extension of the *resource-based view of the firm*, the knowledge-based view depicts knowledge as the most essential and strategically important resource for a firm, which cannot be easily transferred. According to process-based models of internationalisation or *stage-models*, such as the *Uppsala* and the *innovation model* (U- and I-model), a firm internationalises by passing a sequence of stages, for example, from conducting export business until establishing own production facilities. In these models acquiring experiential knowledge is essential in the internationalisation process of firms. However, the process is comparably slow and incremental. The companies act risk averse and increase their commitment only as their perceived uncertainty decreases. Thus, these are *behaviourally oriented models*. The *international new venture perspective* describes the phenomenon of born globals, international new ventures or global start-ups which are companies who expanded abroad soon after their foundation despite a shortage in financial, human or tangible resources. In contrast to the traditional process models, knowledge is a driving factor in the interna-

tionalisation of these companies. A definition describes *international entrepreneurship* as a mixture of innovative, proactive and risk-seeking behaviour, which involves activities in foreign countries and aims at the creation of value (McDougall and Oviatt 2000, 903). Thus, the concept was selected as a part of the theoretical framework of this study, because the description fits with the observed behaviour of the case companies. Moreover, their international development often happened faster as it would be assumed based on the process model. Additionally, the *network theory* was chosen as a part of the theoretical framework as it describes the firms and various stakeholders such as customers, suppliers or competitors as a system of various relationships. These relationships are an essential source of knowledge and business opportunities, and thereby they have a central influence on the internationalisation process of a firm. In short, the study contributes to different internationalisation theories, such as the process based perspective, particularly to the Uppsala model, to the theory of international new ventures and the network approach. Further, by investigating organisational learning capabilities and knowledge creation the study also contributes to the knowledge-based view of the firm, particularly to the dynamic capabilities perspective and theories of organisational learning.

*Dynamic capabilities* are an extension of the knowledge-based or the resource-based view of the firm and can be considered as important link to organisational learning. According to this concept a firm's competitive advantage stems from certain processes which enable the company to arrange its resources in an alternative way in a changing market environment. Generally, capabilities are created through the integration of specialists' knowledge into organisational competences and routines. According to *behavioural learning models*, organisational learning occurs through the transformation of conclusion from past events into routines which guide the behaviour. *Routines,* comprising, for example, documents, rules, procedures, or strategies of an organisation, represent relatively stable patterns of behaviour which are shared between the members of an organisation. They constitute important instruments to coordinate an organisation's actions in a dynamic environment. In behavioural learning models, organisational learning is based on routines, dependent on an organisations history and oriented towards particular targets. On the other hand, *cognitive learning models* emphasise changes in cognition, causal relations and ideas.

The research is based on *qualitative methods* and an *exploratory,* as well as *descriptive research strategy* applying *multiple-case studies*. The case companies come from Austria, Finland and Germany and were founded between the late 1950s and the early 1980s. They are, with the exception of Honkarakenne, which is listed on the Helsinki stock exchange, still family-owned businesses. Their annual turnover ranges between 12 and 450 m EUR, whereby one Wolf System, the biggest company is a conglomerate construction firm, whereby the prefabricated housing business accounts for about a

quarter of their turnover. In this study secondary information was collected from company websites, company catalogues, and business newspapers. Further, seven *semi-structured personal interviews* served as main data source. The interviews with managers of the case companies were conducted personally in March and April 2011.

The managers named as *reasons* for the international expansion expanding with a competitive product in new markets, risk diversification, benefiting from first-mover advantages and benefiting from business opportunities such as the rise of the Eastern European market after the fall of the iron curtain. The founders were in all cases a driving force in the internationalisation process. Even though the foreign expansion is not considered as risk as such, the owners or managers keep the risk on a rather low level, for example, through equity investments or a development in small steps which conforms to the proposition of the Uppsala model. As biggest *challenges* finding appropriate business partners or suitable employees was stated in all cases. However, it was also mentioned that having a well-known brand makes the partner search easier. Other challenges which were mentioned relate to economic issues such as currency risks or recessions, lower purchasing power, long payment terms, legal issues such as locally diversified building regulations, or bureaucracy.

The major finding of the study is that it is not necessary to acquire the market knowledge internally in a rather slow process as proposed by the Uppsala model. Knowledge is acquired by either hiring local employees, as it was the case of Wolf System or through *symbiotic relations* with partner companies. Thereby, the manufacturing companies contribute to their design and production capabilities as well as their brand value. In return, their local partners provide them with knowledge of the market and local regulations; they manage the customer relations and often the assembling and interior finishing of the house. Thus, the study provides strong evidence for the propositions of *network perspective*. In these cases, when companies cooperate with business partners, certain kinds of *contractual agreements* such as *distributor* or *licence contracts* are used. Generally, each company has its own approach which kind of governance modes or which combinations it applies, for instance, subsidiaries and distributor contracts. However, gradual knowledge development in a *sequential internationalisation approach* could be noticed in the case of Wolf System. After a market is entered by establishing a subsidiary for the concrete construction business, experience and knowledge is gradually acquired internally. Later, the market is entered with the hall construction business as second step. Prefabricated houses follow as last business line, since they are the most complex building projects as various different crafts need to be coordinated and the end-customer is served directly. With regard to a gradual knowledge development this approach conforms to the Uppsala model.

In the course of the companies' internationalisation, *improvisational learning* occurred as problems and new insights are gained. However, the focus lies on solving a

particular issue related with the foreign business, learning occurs in a way as side effect. *Behavioural trial-and-error learning* happens if activities prove to be successful and are repeated. *Cognitive trial-and-error learning* occurs if new gained insights, for instance, how the design and construction process is usually organised in a country, lead to the development of new causal models or assumptions. *Double-loop learning* happens as the companies are exposed to a wider range of business settings and actors abroad, or may experience unexpected failure which affects that they need to reconsider and change their current strategies and business practices. A further indicator of double-loop learning is that *adaptiveness* concerning the product, but especially with regards to business practices and internal procedures, is considered as a crucial success factor. An exposure to limited variation, which does not result in changes of strategies or assumptions or the organisation's *theory-in-use,* would refer to *lower-order* or *single-loop learning* processes. As companies usually deploy a certain approach when entering a new country, assumably the decision is based on an underlying *dominant logic*. A dominant logic is a learned problem solving behaviour and eases decision making in complex situations. Thus, as companies deploy certain approaches they might try to control the complexity in the foreign expansion process by balancing *knowledge exploration and exploitation* while avoiding *competency traps.* However, considering and evaluating alternative options increase the flexibility as it prepares for various contingencies. Further, beneficial opportunities may be discovered.

*Experience, (tacit) market knowledge* and *personal contacts* are considered essential in the internationalisation process. This conforms to a central assumption of the Uppsala model. Through close cooperation with the business partners and regular interaction, for instance, via phone, e-mail, e-meetings and personal visits, the companies facilitate knowledge transfer. Thereby, *absorptive capacity* can be considered as essential dynamic capability, which enables the *acquisition, assimilation, transformation and exploitation of knowledge.* An overlapping knowledge base, also referred to as *redundancy of information,* eases the sharing of tacit knowledge, increases mutual trust and the ability to deal with various contingencies. *Tacit knowledge* and *routines* are also transferred by means of *socialisation* such as internal training periods for new employees or to business partners in the form of sales training or by sending foremen to construction sites.

Finally, the study opens promising issues for further research. For instance, the formation of symbiotic partnerships in foreign expansions should be also investigated for other branches of manufacturing-based businesses or other industries in general. Further, it would be interesting how this process could be eased an accelerated. In addition, it could be examined whether sequential market entry in multi-branch enterprises is a commonly applied learning and/or risk management strategy.

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# APPENDIX

## APPENDIX 1 Operationalisation table

| ***Research question*** | |
|---|---|
| How do prefabricated house manufactures develop organisational learning capabilities, acquire and transfer knowledge for their internationalisation? | |
| | |
| ***Subquestions*** | ***Topics in the interviews*** |
| SQ1) What are the challenges in the internationalisation process with regard to the acquisition and transfer of experiential and codified knowledge? | Reasons, motivations and resources/knowledge for the internationalisation |
| | Challenges in the internationalisation process (technical matters, language barriers, differences in mentality, cultural differences, legal differences, market environment/market access, finance) |
| | Risk perception and its change during the internationalisation process |
| SQ2) How do the companies overcome these challenges and develop learning capabilities in the course of their internationalisation? | Acquisition/sourcing and management of explicit and tacit knowledge in the internationalisation process (private/institutional support, staffing/training) |
| | Application of governance structures, cooperation for knowledge acquisition, and -management |

# APPENDIX 2 Interview Questions

| | |
|---|---|
| SQ1) What are the challenges in the internationalisation process with regard to the acquisition and transfer of experiential and codified knowledge? | What were the major challenges in the internationalisation process (building regulations, legal differences, language differences, culture...) ? |
| | What were the motives? |
| | What are the challenges or restrictions when shipping prefab houses? |
| | How did the risk perception over time change when expanding abroad through the gathered experience? |
| | Did managers already have foreign experiences from previous occupations? |
| SQ2) How do the companies overcome these challenges and develop learning capabilities in the course of their internationalisation? | What is general the approach when expanding to a new country? |
| | What were the main steps so far in the internationalisation process? |
| | Why do you export via partners / found subsidiaries / licence you product? |
| | What are important characteristics to manage foreign activities? In other words, what are you paying attention to when recruiting managers for businesses abroad? |
| | How do you find suitable partners or staff? |
| | What kind of training do your partners, new employees receive? |
| | How do you adjust your product to the requirements of the foreign market? What are the main information sources? |
| | Do you adjust your marketing and the sales methods to the requirements of the foreign market? - If yes, in what sense? |
| | How is the foreign business managed in the company? |
| | How is the work organised between you and the partner company/subsidiary/sales agents/local experts (e.g. architects,...) (concerning marketing/PR, sales, assembly – What is done locally, what does the home company)? |
| | How is the information exchange with your partner(s)/subsidiaries organised? |
| | Which language is used e.g. with the partner company, the employees of the subsidiary? |
| | What kind of market research do you make and what are the sources of information? |
| | How important is written information (market reports,...)? |
| | Do you use support from institutions (e.g. Chamber of Commerce)? - If yes, what kind of? |
| | Do you use support from consultants? – Why/Why not? |
| | Could you benefit from previous experiences abroad in the further expansion process? If yes, in what sense? |
| | Do you develop a roadmap or follow certain guidelines when expanding abroad? |

| | |
|---|---|
| Additional questions (depending on the company) | Questions concerning the organisational structure of the company. |
| Additional questions (depending on the company) | Questions concerning the company figures. |
| | How is/are the export business/new subsidiaries financed? |
| | Do you send managers abroad? |
| | How do you prevent risk of exploitation of knowledge through partner companies? |