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Development of the Internationalization Model for New Product by DECK Engineering OÜ.

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ABSTRACT

The central research question of this work is development of internationalization model for small Estonian engineering company DECK Engineering. DECK Engineering has been exporting company nearly from the start with export share reaching some years up to 90%. With regards to the process of internationalization it means, that company has already been internationalized. However, it does not have an internationalization model as such in place. So far, the internationalization of the company was intuitive, based on the active sales activities mainly performed by the company General Manager. However, and due to the fact, that company has started to produce own niche product, which can be sold globally, it now needs to have clear internationalization model, which would be based on the existing company capabilities. To find and create one, three mostly known internationalization models for SMEs, Uppsala, Network and Born Global have been researched and compared. As DECK Engineering has written business model, which was developed by key employees with the help of an external business consultant, it was decided to use it as a basis for development of the internationalization model.

It is action research paper, because DECK Engineering is in the process of developing internationalization model for its new products, which can be sold globally. The author of this thesis is working as General manager in DECK Engineering.

Keywords: Internationalization process and factors, SME, Uppsala model, Network model, Born Global model, business model

INTRODUCTION

Internationalization issues have long been considered in academic literature regarding large international companies solely. At that, internationalization processes of small and medium-sized enterprises were analyzed to a lesser extent (see, for instance, Oviatt and McDougall, 1994). Internationalization of SME is different form large corporations due to limited recources and capacity. Every SME tends to find its own way how to grow business. Multitude of the entrprises around the globe are working very hard to find their own unique value propositions, create business models, secure it's position in the niche, build efficient teams, create company culture and identity and in the end of the day to find it's own development path, which will lead them to the success. Nonetheless every firm is looking for it's unique proposition an set up, there are still a lot of things in common, which are being repeated from company to company.

Over the past two decades this situation has drastically changed. Nowadays three main theories of internationalization of small and medium-sized enterprises have been widely disseminated in scientific community. Variety of SME firms worldwide have been a subject for a multiple studies and researches. It won't be false to say that researchers from every country in the world have been making scientific research based on local companies to find out the practices and the ways they are growing own businesses. Based on these researches three major internationalization therories for SMEs have been developed. Uppsala model (Johanson and Vahlne, 1977), Network model (Johanson and Mattson, 1987), and Born Global (Cavusgil and Knight, 1996). Uppsala model as the oldest one among them has been revisited by Johanson and Vahlne in 2009 and adopted to the newest technologies and trends.

In this paper the central research question will be based on Estonian based SME, DECK Engineering. The need for an internationalization model for DECK Engineering has arised due to the development of new product – Instrument Deployement Unit (IDU). Company has ambition to sell it around the world, however it does not have a clear model how to make it. Considering small size and limited financial capacity of the company, it needs to develop an Internationalization model, which will be feasible in such a circumstances.

Internationalization model of the enterprise define strategic approach to the international expansion of the company. On other hand every copmany works and exists due to having its own unique value proposition, which is delivered by performing core activities to the targeted customer groups. It is called business model of the enterprise. When company decides to go abroad, it needs internationalization model, which would be supported by the business model and vise versa. Therefore, existing business model is an important piece in the process of creating the internationalization model and shall be analysed and considered in order to warranty, that expansion abroad will be done in line with business needs and capabilities of the company.

1. BUSINESS MODEL FOR SMEs

1.1. What is a business model?

The term Business Model has been used in scientific sources from the middle of XX century (see. for instance, Bellman et al., 1957 and Jones, 1960). Nevertheless, it has not been particularly recognized until 90s. Some scientists assumed that business models have become a special point of interest due to technological development (Osterwalder, Pigneur and Tucci, 2005; Zott, Amit and Massa, 2011). Such factors as knowledge acquisition, outsourcing and offshoring of commercial activity, global restructuring of the financial service industry and development of Internet and E-commerce have recently led to a substantial increase in awareness level regarding the business model concept in community (Teece, 2010; Zott, Amit and Massa, 2011).

Academic researchers often define the term Business Model in many ways as business models can be employed in different areas. They can play different roles depending on the context when it comes to addressing the questions raised by scientists. Thus, the term Business Model has not been clearly defined yet (Zott, Amit and Massa, 2011). Some researchers assume that the concept of a business model implies «the articulation between different areas of a firm's activity designed to produce a proposition of value to customers» (Demil and Lecocq, 2010). Other researchers state that a business model pertains to enterprise logic, working approach and establishment of the value for interested parties (Casadesus-Masanell and Ricart, 2010). Thus, the choice of a certain business model prompts the choice of an enterprise competing in the market and a clear operation logic as well as value establishment. A series of research considers a business model as a way to create the value to be tested on the market (Keen & Qureshi, 2006; Magretta, 2002).

Researchers have a different point of view when it comes to business model functions. Some assume that business model helps managers, information system experts and external stakeholders to analyze architecture (Lambert, 2012) and operations of certain organization (Demil and Lecocq, 2010). Moreover, based on some research, business models should be considered as an architecture and structure describing a process of establishing and offering the value and its capturing

mechanisms (Osterwalder & Pigneur, 2010; Teece, 2010). Business model should also reflect manager opinions regarding what the consumers need and how they wish to get it. Managers should also know how entrepreneurs can satisfy these needs to get paid and profit from it (Teece, 2010).

Scientist have not clearly defined the key components of a business model (Gassmann, Frankenberger, and Csik, 2013). A choice of the key components varies for each company as companies may substantially differ (Cavalcante, Kesting and Ulhøi,2011). Nevertheless, most researchers employ a common denominator (Keen and Qureshi, 2006; Zott, Amit and Massa, 2011) despite of existence of different definitions of the business models and a choice of key components (Zott, Amit and Massa, 2011). Thus, for instance, business models can describe an actual part of business activity as well as its operation process and can be considered as a system with the value being the main and central component (Zott, Amit and Massa,2011).

Nevertheless, other elements representing a part of a business model can be chosen differently. Value proposition, market segment identification, value chain and its establishment, assessment of the cost structure, potential profit and competing strategy (Chesbrough & Rosenbloom, 2002) should be considered. According to other research, business model should include such four key components as key resources, value proposition for client and the profit formula. Combined, these components define whether an enterprise will compete in terms of price or product differentiation (Eyring, Johnson and Nair, 2009). Some researchers state that the key resources and processes are combined within the scope of a single component (Demil and Lecocq, 2010) therefore a business model should be shaped by three key elements such as resources and competences, organizational structure and value proposition. They also note that organizational processes should promote identification of the key elements of a business model that will most certainly vary for different enterprises (Cavalcante, Kesting and Ulhøi, 2011). Moreover, the same business model cannot be used to cover several important elements at once as they may require the use of several business models (Osterwalder and Pigneur, 2010).

1.2. Designing a business model

SMEs often face business model concept when they form it based on a business idea. This is the first step which is often called the establishing phase (Cavalcante, Kesting and Ulhøi, 2011).

Despite the lack of consensus on how to develop business models, there is a growing interest in further developing the concept and shifting the focus from theoretical to more practical approach implying the use of business models (Al-debei & Avison, 2010; Bouwman et al., 2012). However, a business model is a complex phenomenon that combines an enterprise strategy, technology capabilities, and an innovation process (Spieth et al., 2014), which as a result must become a functioning single whole (Magretta, 2002). Moreover, researcher provide practically no rules or practical guidelines for actual design of the business models (Keen and Qureshi, 2006). This matter complicates such a process since many components of the business model are interrelated (Faber et al., 2003). Some scientists have attempted to simplify the complex designing process of a business model. For example, they suggested to consider business models as stories explaining how enterprises function. (Magretta, 2002).

Thus, designing of a new business model might be considered as writing a new history, which makes the process of doing business simpler and more understandable for all the parties. Researchers also note that for the business models to be useful, they must be "reasonably simple, logical, measurable, comprehensive, and operationally meaningful" (Morris, Schindehutte & Allen, 2005). Despite the lack of practical guidelines or formal rules regarding this matter, available literature sources on business models offer some simple and understandable tools. Table 1 provides six different approaches to design of business models (based on the work of Eurich, Weiblen and Breitenmoser, 2014). The approaches considered include (1) Cases and Lessons, (2) Component-based Approaches, (3) Taxonomies, (4) Conceptual Models (5) Casual Loop Diagrams, and (6) Design Patterns.

Table 1. Approaches to Business Model Design

Approach to Business Model Design	**Features**
Cases and Lessons	Business model is described as a case. Description reveals the features used to design a business model.
Component-based Approaches	Business model is described based on a certain predefined set of components.
Taxonomies	Business models are classified based on predefined criteria. Typologies are created.

Conceptual Models	This approach is like a component-based approach. The differences lie in detailed description of interrelations and interdependencies between components.
Casual Loop Diagrams	Interactions within the model are described and a special attention is paid to business model mechanisms.
Design Patterns	Existing business models represent a base for designing the new one and can be used as templates or recipes.

1.3. Business model canvas

Business model canvas designed by Alexander Osterwalder and Yves Pigneur is a popular tool employed to design a business model, It is frequently used in practice. (Massa & Tucci, 2014; Spieth et al., 2014; Trimi & Berbegal-Mirabent, 2012). This tool is based on the Osterwalder's Business Model Ontology (Osterwalder, 2004) and represents its simplified version. Osterwalder and Pigneur (2010) designed business model canvas consisting of nine components (see Fig. 1) based on the literature review (Fritscher & Pigneur, 2010). This canvas demonstrates the process of capturing and offering the value by enterprises in a convenient visual form.

<table>
<tr><td rowspan="2">Key Partners</td><td>Key Activities</td><td rowspan="2">Value Proposition</td><td>Customer Relationships</td><td rowspan="2">Customer Segments</td></tr>
<tr><td>Key Resources</td><td>Channels</td></tr>
<tr><td colspan="2">Cost Structure</td><td colspan="3">Revenue Streams</td></tr>
</table>

Figure 1. Business Model Canvas Structure

Source: Osterwalder and Pigneur, 2010

Users of the business model canvas are usually given considerable discretion as to how interpret the canvas (De Reuver, Bouwman and Haaker, 2013). It allows them to easily design the business models (Fritscher and Pigneur, 2010). The use of the canvas leads to design of a simple and clear template for implementation strategy with interconnected and interdependent elements. (Al-debei and Avison, 2010; Osterwalder and Pigneur, 2010). The ability to fit description of enterprise's business logic to one page is the most attractive feature of the business model canvas (Fritscher and Pigneur, 2010). The basis of the canvas is a value proposition describing the consumer issues being solved by means of using the offered product or service and reasons why this product or service is more valuable than the alternative option (Fritscher and Pigneur, 2010; Osterwalder and Pigneur, 2010). The market segment, customer relations and distribution channels are analyzed together and shape the client side of the business model canvas (Fritscher and Pigneur, 2010). Key operations, key resources and key partners are required to provide an offered value proposition (Fritscher and Pigneur, 2010). Revenues reflect how many customers are willing to pay for the value of a product or service they are provided with, and how the operation is performed. Finally, the costs within the scope of canvas should closely correspond to the key ideas of business model in question (Fritscher and Pigneur, 2010).

2. MODELS OF SMEs INTERNATIONALIZATION

2.1. Uppsala internationalization model

The Uppsala Model, also known as Scandinavian or 'stage' model has been elaborated by Swedish researchers Johanson and Vahlne in 1977. Based on empirical data regarding internationalization of Swedish small and average-sized enterprises, the researchers designed the model explaining gradual and quite slow company internationalization process (Johanson and Vahlne, 1977). According to Johanson and Valhne, "the Uppsala Model focuses on the gradual acquisition, integration and use of knowledge about foreign markets and operations, and on the incrementally increasing commitments to foreign markets "(Johanson and Vahlne, 1977).

According to the Uppsala Model, companies begin gradual exporting once they reached a stable position in the domestic market. At the first stage, company exports own products using agent services. The company opens a sales office on the market and, possibly, at the final stage, begins to manufacture products in this country. The markets are also chosen gradually considering the cultural proximity (psychic distance) of the market to the company's domestic market.

The model implies differences between statistical and dynamical aspects of internationalization process within the scope of which the results of past decisions are used to make the next ones. Thus, current state of enterprise, which implies extent of commitment to certain market and level of knowledge of this market and related operations, represents important factor in internationalization process. Dynamical aspects within the scope of the model are represented by the decisions regarding extent of commitment and current business activity.

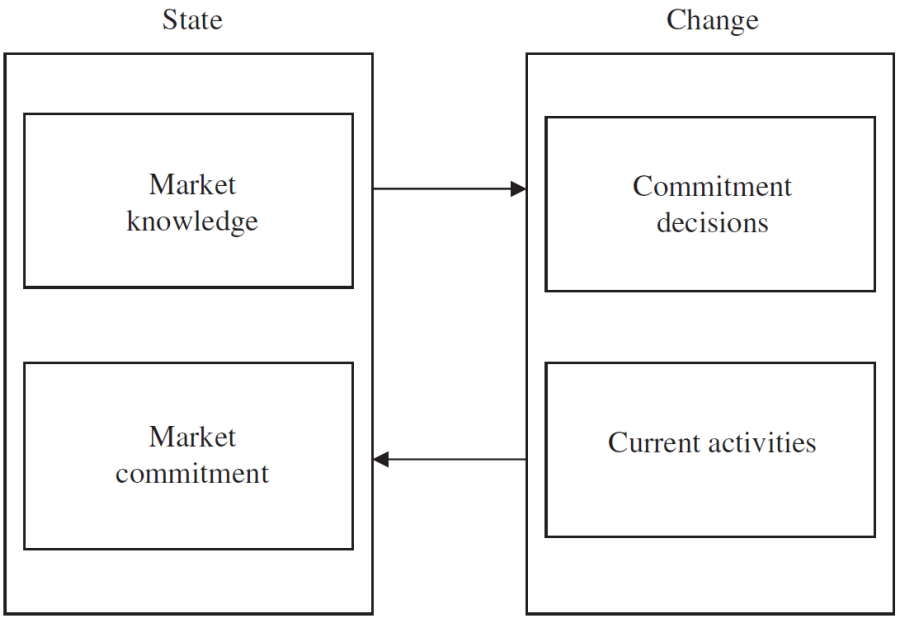


Figure 2. The basic mechanism of internationalization: state and change aspects

Source: Johanson and Vahlne, 1977: 26

Figure 2 shows visual representation of basic mechanism of internationalization according to the Uppsala model. It is obvious that the level of accumulated market knowledge and extent of commitment to market-related activity are attributed to decisions regarding commitment and state of current activity, which, in turn, define the level of accumulated market knowledge and extent of commitment. Thus, according to Johanson and Vahlne, "the state of internationalization affects perceived opportunities and risks which in turn influence commitment decisions and current activities" (Johanson and Vahlne 1977).

2.1.1. State aspects

Market commitment is represented by two factors such as amount of used resources and complexity of search for alternative ways of using resources. It also depends of how difficult it is for an enterprise to use such the resources for other purposes, which implies commitment extent. For example, assets placed on a certain foreign market can be considered as one of the involvement factors. The more specialized resources are in a certain market, the higher the degree of involvement whereas an amount of resources used in the market can be considered as the level of investment in this market.

Market knowledge is information about markets and related operations that is available to employees of an enterprise and includes both a general view of market operations, such as, for instance, marketing tools, and specific knowledge of a certain market regarding cultural features,

investment climate etc. These factors further conduct of international activities. Specific market knowledge is acquired during operating and conducting business in foreign markets and can often be applied to several markets. Practical experience is extremely important in international activities as it enables evaluation of practicability of every specific market while general view of market operations only makes it possible to assume possible available opportunities. Market knowledge is directly related to an extent of commitment to the market. Considering knowledge as a resource, a higher level of awareness results in a greater commitment extent. Since the acquisition of practical experience in foreign markets requires considerable time, market involvement will gradually increase.

2.1.2. Change aspects

Current activities are the main source of practical experience in foreign markets. As a rule, manifestation of the results of current activity comes with a delay against the decision-making moment, and usually the company can draw some conclusions based on regular activities, which in fact represent an increasing level of involvement in activities on a certain market. In this regard, the Uppsala Model implies that the more complex and varied are the offered products, the greater will required volume of regularly performed operations be and, consequently, the greater is market commitment.

Commitment decisions imply decisions on the use of certain resources in international operations, which are made with possible alternative uses in mind and considering the opportunities and difficulties associated with a certain market. The possibilities and difficulties of the market are estimated based on the current market activities and related experience of the enterprise, that is, they depend on the scale and type of the company's activities in a certain market in question. Market operations occurs in uncertain conditions, and therefore the level of involvement in the market occurs gradually. It is possible to decrease the level of uncertainty if the company has enough resources, market conditions are quite stable, or the company has skilled enough to do the business in similar conditions. Thus, decisions on the level of involvement are made based on ideas about the level of uncertainty and market opportunities. The latter implies gradual market involvement and slow acquisition of knowledge of foreign markets.

In general, according to classic version of the Uppsala model, internationalization process is slow and requires time and repeated processes (Hollensen, 2011).

2.1.3. Uppsala model revisited

Despite the great popularity of this model in academic community, it has been subjected to substantial criticism (Hollensen, 2011). Some scientists noted that the model is too deterministic and limits the range of possible options for the development of the internationalization process (Reid, 1983; Turnbull, 1987). Moreover, the model does not consider relationships between different markets, and it is not applicable for enterprises and industries with a great degree of internationalization (Hollensen, 2011). In response to criticism, Johanson and Vallne reviewed and augmented the model, emphasizing the importance of business networks and enterprise relationships as a key to success in the internationalization process (Johanson and Vahlne, 2009).

According to the improved model, companies represent the part of business networks and interact in between. Business networks contribute to the process of internationalization and limit it, as well. The model suggests that strengthening the position of company in network results in internationalization. Existing business relationships have a significant impact on the choice of geographic markets for business. In addition, they influence the choice of market entry as they enable identification and use of the emerging opportunities. It is very important to identify the opportunities, and this process is closely related to knowledge acquisition and market involvement. Discussing the renewed model, the authors argue that acquisition of new knowledge about foreign markets is possible not only based on international experience of a certain enterprise, but also with an experience of all the members of business network in mind. To establish the opportunities, an enterprise must create strong links to the network to access information available to the network members exclusively.

Johanson and Vahlne divide the variables into static and dynamic ones, which are already known from the original model (Fig. 3). Variables affect each other, that is, the current state affects dynamic processes and vice versa. Thus, the model describes dynamic and cumulative learning processes as well as the processes of building trust and involvement in the network. For example, a greater level of knowledge can influence these processes both in a positive and negative way. It is also possible that a company or its partner will face the situation that may decrease an extent of involvement or completely end the business relationship.

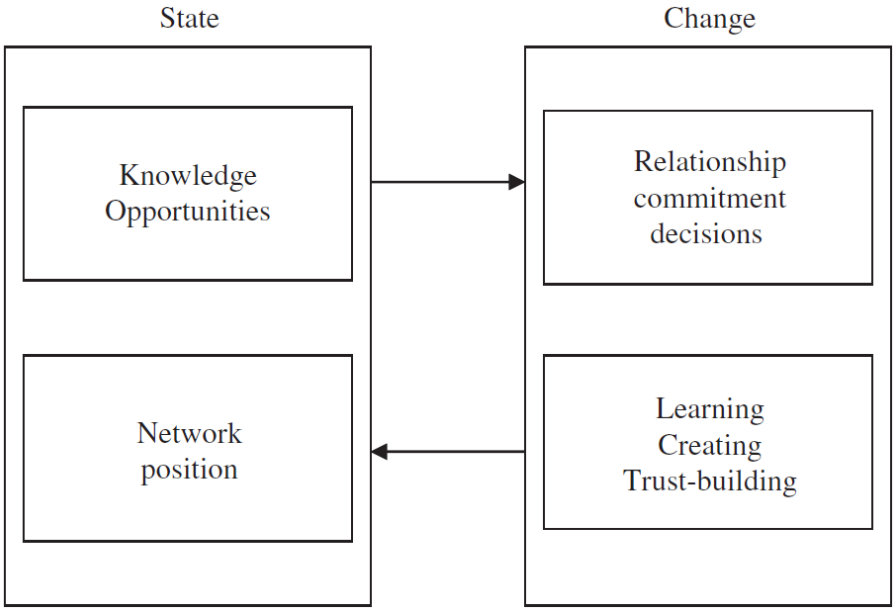


Figure 3. The business network internationalization process model (the 2009 vesrion)

Source: Johanson and Vahlne, 2009

Figure 3 demonstrates the relationships within the updated model. As it can be seen from the Figure, abilities are derived from knowledge. The needs, strategies and business networks are also recognized as important factors. "Position in the network" explained in the model of 2009 plays the same role as “engagement in the market” described in the model of 1977 since the internationalization process takes place within the network. Relationships substantially differ in terms of the knowledge, trust, and level of involvement therefore they contribute to internationalization process to various extent. In this regard, the result of learning, building trust and market involvement represents position of a company in the network within the scope of the Uppsala Model. Thus, in the new model, the “current activity” block is replaced with the “learning, creation and building trust” block. Johanson and Vahlne describe this process as follows, “The speed, intensity and effectiveness of learning processes, establishment of a new knowledge and building trust depends on accumulated knowledge, trust and involvement as well as an extent of attractiveness of the opportunities for partners“ (Johanson and Vahlne, 2009).

Finally, it is thought that within the scope of updated model enterprises are mostly focused on use of opportunities offered by foreign markets rather than trying to overcome the challenges instead.

2.2. Network model

Network model represents more modern internationalization theory suggested by Johanson and Mattson in the end of 80s (Johanson and Mattsson,1987). According to the network model, to survive in the business environment, enterprises should establish business relationships outside of the scope of the pair «seller-customer». This observation and necessity to thoroughly study the roles of business networks in the internationalization process has been noted by many researchers at that time. For instance, Axelsson and Easton support more popular representation of organizational relationships, stating that the way business networks are being used to enter the market is a very important issue to research further. It can also be assumed that due to the cumulative nature of the network building process, the sequence of steps made to enter the market is also very important for the researcher (Axelsson and Easton, 1992). Later, the need to explore the role of business networks was also noted by Coviello and Munro in 1995. The researchers confirmed the need for a broader model, arguing that network theory offers an interesting look at the sequence of internationalization processes (Coviello and Munro, 1995).

Since then, the role of business networks in the internationalization process has been thoroughly studied. Related studies include the research conducted by Coviello and Munro. The researchers analyzed the choice of a foreign market and the way to enter the market employing small enterprises producing software as a sample (Coviello and Munro, 1995). Moreover, by now it has been established that relations with enterprise-suppliers affect the sequence of enterprise actions in the internationalization process (Martin, Swaminathan and Mitchell, 1998). Other scientists studied the role of business networks in internationalization strategies (Welch and Welch, 1996) as well as decisions taken to choose a country for foreign direct investment (Chen and Chen, 1998), the first step of the internationalization process (Ellis, 2000), rapid internationalization (Loane and Bell, 2006) and the processes of internationalization of the companies from emerging markets (Elango and Pattnaik, 2007).

The network model is focused on the enterprise's business network, that is, on the entire system of interrelations, which is more than the company in itself or separate interrelations between two enterprises. In Johanson and Mattsson's model (1988), an enterprise is connected, in the first place, with its own business network, but in addition to that, the process of internationalization also includes other network structures in foreign markets. Networks existing in the domestic market can also expand abroad if the company enters international markets. In some cases, the enterprise

can use domestic networks to form new networks in another country. There exist direct and indirect links between enterprises and networks in the country, which may be used in the process of internationalization (Hollensen, 2007).

Figure 4 presents the interrelations between different agents in business networks of the internal market and different countries' market. Say, enterprise's internal market is located in Country A, where its supplier is also located. The supplier has organized a subsidiary enterprise in Country B, where the enterprise's manufacturing company is also located. As there used to exist interrelations between the enterprise and its supplier in Country A, it will be easy for the manufacturing company and the subsidiary company in Country B to establish interrelations. There exist similar connections between all the participants of the model. As a rule, such connections function as "bridges" between business networks in one country and networks abroad (Hollensen, 2007).

The network model may be considered within the framework of a structure similar to the Uppsala model. This structure implies four different scenarios, depending on the enterprise's degree of internationalization and the market's degree of internationalization (business or manufacturing networks) (Hollensen, 2007).

Apart from that, enterprise internationalization process is defined by enterprise's current position in the network. The development of the internationalization process depends on two factors: enterprise's influence and market's influence. An enterprise with a great extent of internationalization has a greater capacity for further internationalization compared to a company that operates in the internal market only. In a similar way, other enterprises possess different market assets in the network structure, depending on their degree of internationalization. In general, there exist three ways of internationalization for an enterprise:

1) To occupy a position in the networks of a country that is new for the enterprise (international expansion for entry into a foreign market)
2) To develop the existing positions in the country's networks (penetration)
3) To enhance the coordination between the positions in different networks of different countries (international integration) (Axelsson and Johanson, 1992).

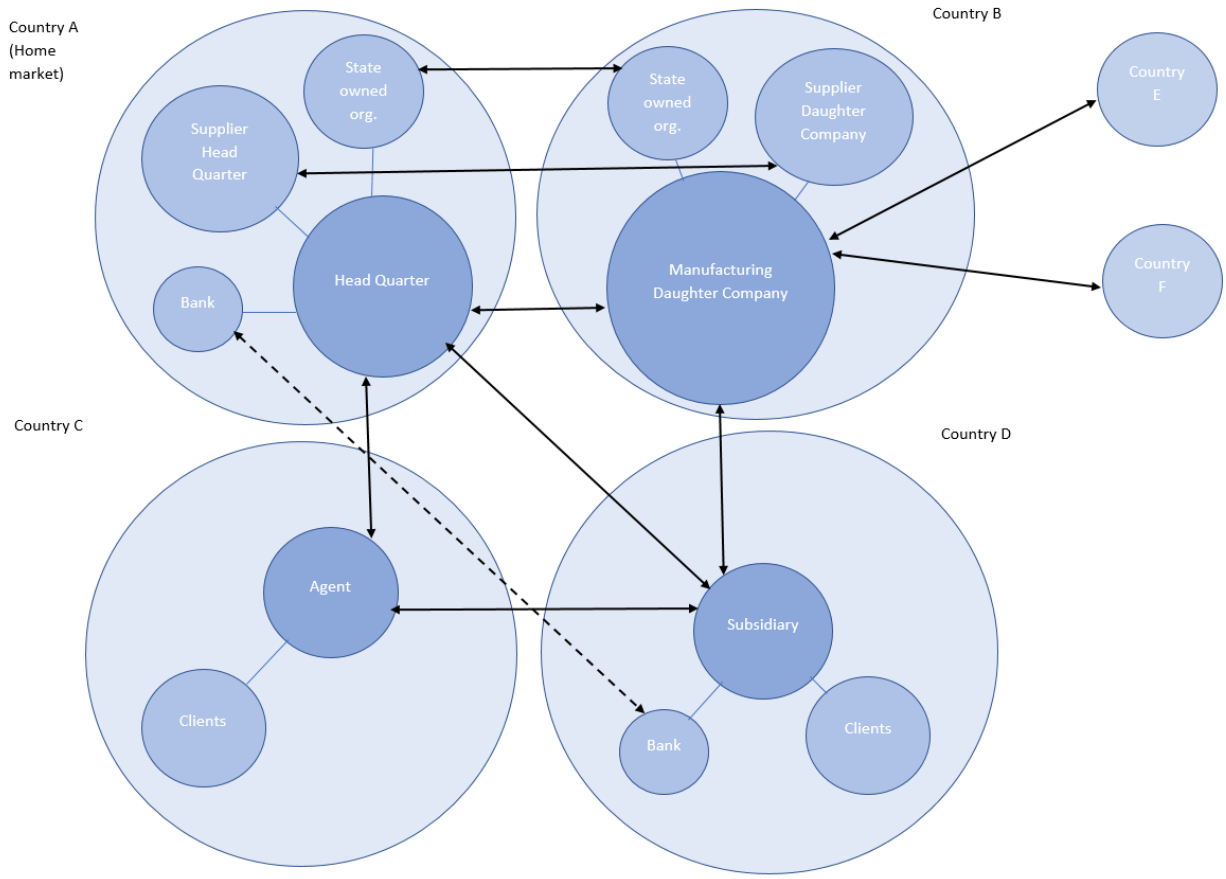


Figure 4. Example of International network

Source: Hollensen, 2007

Combinations of two factors such as enterprise's degree of internationalization and market's degree of internationalization determine four possible situations in the process of internationalization according to Johanson and Mattsson's model. Possible situations denoted in the model as The early starter (1), The late starter (2), The lonely international (3), and The international among others (4), are presented in Figure 5. Each variant has its own typical aspects of integration, penetration and integration in the process of the company's internationalization. Enterprises that are in different situations will also differ in the level of practical knowledge they possess (about the foreign institutions and doing business abroad). Moreover, the size of enterprise has a substantial impact on enterprise's knowledge about internationalization (Hadley and Wilson, 2003).

2.2.1. The early starter

The Early Starter holds the same position as do the other companies in the manufacturing network. It has a few not-too-important interrelationships with companies abroad. Companies, which have started the process of internationalization at the beginning of the 20th century, can be considered the Early Starters. Entering a foreign market, the Early Starters seek for a balance between internal resources and external demand in the target market (Johanson and Mattsson, 1987).

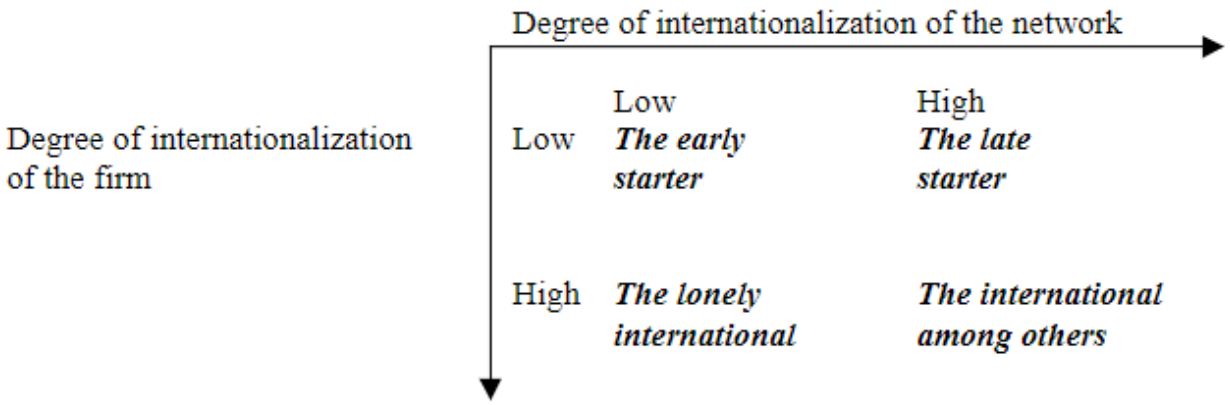


Figure 5. Internationalization and the network model (4 options)
Source: Johansson and Mattson, 1988

At this stage, the competitors, clients and suppliers of other firms in the Early Starter's domestic market do not have international interrelationships. The enterprise has limited knowledge of the foreign markets and does not have the possibility to use the existing network in the internal market to acquire knowledge. Thus, the company needs a certain scale and resources to enter the foreign market. In this case, internationalization can begin with the nearest markets with the aid of an agent who will make it possible to reduce the amount of investments and the risk (Johanson and Mattsson, 1987). Employing an agent is the first step to independent direct sales and organization of subsidiary manufacturing enterprises in the foreign market (Hollensen, 2007).

The key strategic moments for the Early Starter's entry into foreign markets are: (1) minimization of the need to acquire knowledge, (2) minimization of the need to make changes, and (3) the use of its position in the existing market. An alternative strategy requiring involvement of a company of a quite large size would be to purchase shares in enterprises in the new markets (greenfield

investments). Such an approach requires substantial investments, but it can contribute to a long-term process of knowledge acquisition (Johanson and Mattsson, 1987).

The stimuli for the Early Starters to begin the process of internationalization often come from external partners, such as distributors or users with an already established position in the foreign market. In practice, such partners will later use their own market assets to ensure the company's steady position within their own network (Johanson and Mattsson, 1987).

2.2.2. The lonely international

It is typical for the Lonely International to have a great enterprise internationalization degree while its market environment has a low degree of internationalization. It is a situation where the company has entered the foreign markets earlier than its competitors, and therefore it has a firmly established position and structured business networks in the foreign market (Johanson and Mattsson, 1987). When the enterprise has a knowledge and possibilities to conduct business in another country through development of interrelationships, it becomes more profitable to enter that market instead operating in the internal market.

The Lonely International's reason for internationalization is to enhance international integration in order to develop the manufacturing network and the companies involved in it. Such a situation is the exact opposite of the Early Starters's situation (Hollensen, 2007). If a highly internationalized enterprise carries on business in a lowly developed environment, this may contribute to further integration (Johanson and Mattsson, 1987).

2.2.3. The late starter

The Late Starter is a situation where "the clients or the clients' complementary suppliers "pull" an enterprise with a lesser extent of internationalization from the internal market" (Hollensen, 2007). This happens when the enterprise already has indirect interrelations with the foreign networks via its suppliers, clients, and competitors (Johanson and Mattsson,1988). This situation is typical for the large-scale projects where a complementary supplier conducts business in the foreign market. The enterprise can use internal market assets in the process of internationalization, and the market entered by the company may be quite far from the internal one. For this reason, the first step of

internationalization must be substantial. In turn, the process of internationalization itself can evolve much quicker due to the abovementioned reasons.

It can be rather difficult for the Later Starter to win a position in the new market because of the existing closely structured networks where the best distributors have already been involved in interrelations with competitors (Hollensen, 2007). Such a situation requires a greater coordination, and the enterprise will have to organize subsidiary trading enterprises earlier than the Early Starter (Johanson and Mattsson, 1987).

2.2.4. The international among others

The international among others is a scenario where both the enterprise and its environment are highly internationalized, and the small steps are taken to further the process of internationalization. The enterprise can use its position in the network to build bridges between the networks granted sufficient development of horizontal interrelations in the company. Consequently, a certain degree of international integration is required. This situation describes a global interdependent network where the driving forces and hindrances are sufficiently connected with the interconnections between the enterprises (Johanson and Mattsson, 1987).

The enterprise can use its manufacturing facilities to carry on sales in other markets and for product specialization. This will help coordinate sales and increase international sales within the company. Another way to coordinate sales is to quickly open subsidiary enterprises. This is a feasible option due to enterprise's high level of international knowledge. (Hollensen, 2007). Subsidiary enterprises are most often opened in those markets, which the company considers as the main ones for its business. In such cases, they help demotivate the competitors and protect the enterprise against dumping. If the company wants to use the excessive manufacturing facilities of one market to increase sales in another one, a high degree of the enterprise’s business integration is required (Johansson and Mattsson,1988).

An important aspect of the network model of internationalization is the question of how the enterprises occupy their positions in the business networks of other countries and how exactly new business networks are being penetrated. Enterprises with an internationalization experience will actively search for the possible “points of entry” (nodes) into the local business networks. Meanwhile, companies without such an experience will take a more passive position. It is

important to note that the “points of entry” have more importance for the process of internationalization than the chosen method of entry into the market, but they may vary depending on the chosen method. In the process of penetration into the local business networks, the enterprises successively go through three stages of business network formation: exposure network, formation network, and sustenance network. When the last stage is achieved, it means that the enterprise has been fully integrated in the new business network (Hilmersson and Jansson, 2012).

2.3. Born Global

Over recent years, an increasing number of researches study small businesses, which differ from international corporations in terms of strong corporate culture yet beginning the quick process of internationalization earlier than traditional enterprises. In the scientific community, such companies have been denoted as the Born Global firms (Knight and Liesch, 2016; Li, Qian and Qian, 2012). These enterprises skip the traditional process of internationalization as they begin carrying on business in the global market and working with clients all over the world since the first day of their existence (Mathews and Zander, 2007). The Born Global become increasingly active in the global economy and change the dynamics of international competition (Mathews & Zander, 2007). It can be said that such enterprises contradict to some extent with the existing theories of internationalization (Li, Qian and Qian, 2012). According to the previous theories of internationalization, an enterprise invests substantial resources, bears comparatively high expenses, and is exposed to a higher level of risk (Knight, 2001; Li, Qian and Qian, 2012). These costs result from the need to invest in growth, acquire the competencies necessary to overcome the barriers to market entry and the knowledge necessary to manage the business in different markets (Freeman et al., 2006;Li, Qian and Qian, 2012; Knight and Liesch, 2016). Besides that, the difficulties of the process of internationalization may be associated with the cultural, administrative, geographical, and economical differences between the markets (Ghemawat, 2008). Small enterprises may not possess sufficient resources to cover these costs or to efficiently manage risks associated with internationalization (Li, Qian and Qian, 2012). The Born Global enterprises offering goods can minimize the risks associated with these differences due to diversification inside the region and internationalization on the regional scale (Patel, Criaco & Naldi,2016).

2.3.1. Born Globals challenge traditional theories

This comparatively new type of enterprises differs from the traditional international corporations in that they strive to internationalize their business early to use the possibilities of the increasingly integrated and interconnected global economy (Mathews & Zander, 2007). Despite the limitedness of resources available to small enterprises, the Born Global achieve international growth at an early stage of their development. The above discussed theories of internationalization somewhat imply that the companies prefer operating in the internal market until it is saturated before their entry into the international market. But the Born Global strive for internationalization in the earliest periods of their existence (Knight and Liesch, 2016). Thus, the phenomenon of the Born Global contradicts both with the traditional theories of internationalization describing international corporations and with the theories of small and medium-sized enterprise internationalization. Despite of this matter, the number of the Born Global enterprises has significantly increased worldwide over recent years (Knight & Liesch, 2016).

2.3.2. The factors giving rise to Born Globals

The reasons for appearance of a great number of Born Global have been considered by many scientists (Knight and Liesch, 2016; Li, Qian and Qian, 2012; Zhang and Filippov, 2009; Madsen and Servais, 1997; Cavusgil and Knight, 2015). According to conducted research, the main factors are: (1) new market conditions, (2) development of technologies, and (3) personal qualities of the founders and other persons actively participating in the companies' development (Madsen and Servais, 1997; Knight and Liesch, 2016; Li, Qian and Qian, 2012; Zhang and Filippov, 2009; Oviatt and McDougall, 2005). In addition to that, the researchers note the role of the following factors: the small size of the internal market for niche products and services (Knight and Liesch, 2016), homogeneity of demand (Madsen and Servais, 1997), possibilities of international financing (Oviatt and McDougall, 1994), the population's increased mobility, information accessibility and changes in the legislative requirements, which have resulted in the integration of the global markets of capital, products and technologies (Mathews and Zander, 2007). However, most of the authors consider the first three factors as the most important ones (Knight and Liesch, 2016; Li, Qian and Qian, 2012; Zhang and Filippov, 2009; Madsen and Servais, 1997; Cavusgil and Knight, 2015), therefore they shall be addressed in more detail.

1) *New market conditions.* Over recent years, many companies have encountered new market conditions that contributed to the appearance of the Born Global. One of the most obvious

changes is the increasing specialization of enterprises and the niche markets. As the result of that, a greater number of companies produce certain kinds of goods or render certain kinds of services, which they offer in the international market. Such a situation is particularly characteristic of high-tech software manufacturers. At the moment, many industries have connections with suppliers all over the world, and business networks go beyond the state borders. As a result, innovative goods and services can spread to different countries with greater ease, including in relation to the consumers' more uniform needs. The new market conditions allow enterprises to offer their goods and services much quicker in a broader market. Moreover, financial markets also become more internationalized, which makes it possible for entrepreneurs to raise investments worldwide (Madsen and Servais, 1997).

2) *Technology development.* New market conditions mostly arise due to the changes and development of technologies. The development of manufacturing processes has enhanced the economic efficiency of small-scale production, which in turn led to specialization and customization, and made niche products an available alternative. The transportation industry has also gone through certain changes, which made shipments more widespread and accessible than ever before. In turn, this matter has lowered the barriers for entry to the new markets (Madsen and Servais, 1997). The communication services have also been substantially improved, and the international markets became accessible to companies via the Internet. The Internet is a global virtual business platform with low expenses, free-of-charge interaction, and absence of predetermined channels in the value chain (Gabrielsson and Gabrielsson, 2011; Moen, Gavlen and Endresen, 2004). Moreover, interaction with different countries can be carried on from one point. And finally, the development of technologies has facilitated the analysis, collection and interpretation of information on different markets (Madsen and Servais, 1997).
3) *Personal qualities.* The third factor, which has contributed to the growth of Born Global, is the increased possibility for human resources to use technological changes in the international market. Increase in these capabilities was mostly related to the growth in the number of employees possessing international experience. The increased mobility and acquisition of education in several countries makes the markets more uniform. Besides that, it is important to take into consideration the existing experience and skills of the team of the Born Global founders and their role in the emergence of such enterprises. (Madsen and Servais, 1997).

2.3.3. Born Globals and business networks

Studies indicate that Born Global can probably be short on resources (Li, Qian and Qian, 2012) and (Coviello and Munro, 1997). In order to solve this problem, enterprises can use the resources of their partners in the network (Oviatt and McDougall, 2005). With the aid of networks and interrelations, such small enterprises can get access to additional resources, which may include, for example: capital, equipment, knowledge on a particular country, or other tangible and intangible assets (Li, Qian and Qian, 2012). Such external resources acquired with the aid of networks and interrelations are necessary for entry into international markets, as the resources required for that are often greater than those possessed by the enterprise (Lu and Beamish, 2001). When forming business networks, Born Global get numerous advantages including resource pooling, outsourcing of activities on developing the market, and can avoid size-related limitations, accelerating the acquisition of new knowledge and minimizing the errors (Coviello and Munro, 1997; Li, Qian and Qian, 2012). As the interrelations within the frames of a network contribute to early internationalization of Born Global, it is reasonable to suggest that affiliation with such networks is important for enterprises before the start of internationalization (Coviello, 2006). Moreover, internationalization can be instant if a small enterprise finds partners in foreign markets (Agndal and Axelsson, 2002; Coviello and Munro, 1997; Freemanetal., 2006; Li, Qian and Qian, 2012). Formation of networks helps Born Global control the uncertainty related to early internationalization (Coviello and Munro, 1997; Bell, 1995). And finally, the use of network resources in the process of internationalization allows businesses to penetrate into new markets more successfully (Coviello and Munro, 1997).

2.4. Comparison of the internationalization models

This section of the article offers a comparison of the considered models from different points of view. Historically, new models were suggested in response to criticism of the preexistent models, nevertheless it does not mean that new models fully disprove the provisions of the previous ones. Let us consider the main differences between the suggested models.

Level of analysis. The Uppsala model is focused on an individual enterprise, and the level of analysis remains at the enterprise level even in its updated version. In the network model, the level of analysis is the multiple interconnected relations between companies and groups of enterprises.

The focus of the Born Global model is mostly on an individual company, but a significant role is attributed to its business network.

Reasons for internationalization. Within the framework of the Uppsala model, enterprises enter the international market after they have fully used the possibilities of the internal market. Within the framework of the network model, the reasons for internationalization depend on the enterprise's situation. For instance, the Early Starter's reasons will probably be similar to those described by the Uppsala model, while the Late Starter can be actually "forced" to enter the international market by its business network. For Born Global, the main reason for internationalization is the opportunities offered by global markets.

Capacity for internationalization. The Uppsala model suggests that the capacity for internationalization is a result of the accumulation of knowledge and experience by the enterprise itself, and actually depends on that. This capacity is a derivative of the resources existing in the enterprise's business network within the framework of the network model. For the Born Global enterprises, the capacity for internationalization is based on the skills, experience, and knowledge of the enterprise's managerial team, founders or employees.

Time before entry into the international markets. Within the framework of the Uppsala model, quite much time passes from the founding of an enterprise to its entry into the international markets. The network model suggests that it is to a significant extent determined by the enterprise's business network, and which one of the four possible situations the company is in. As it appears from the name itself, Born Global enter the international markets instantly, in actual fact immediately after they are founded.

Approach to internationalization. The Uppsala model suggests that internationalization is a slow, step-by-step process, which is mostly determined by external factors instead of the company actions. The enterprise rather acts opportunistically and reacts to external stimuli. In the network model, the approach to internationalization depends on the considered situation and the resources existing in the network. Nevertheless, it is mostly determined by enterprise position in the network than by any certain actions initiated by the enterprise. From this point of view, the Born Global's model of internationalization is significantly different from the two other models, suggesting a proactive approach of the enterprise to entry into the international markets.

Speed of internationalization. According to the Uppsala model, entry into the international markets is a slow, step-by-step process. Internationalization can require quite a lot of time within the framework of the network model. For example, it can happen very slowly in case of insufficient resources possessed by the Early Starter or very quickly when it comes to the Late Starter. As of Born Global, entry into the international markets is very fast.

Role of the enterprise's internal market. The Uppsala model suggests that the internal market is extremely important for the beginning of the process of internationalization because enterprises start entering the international markets after the possibilities of the internal market have been used up. Similarly, in the network model the resources of the enterprise's internal network are the resources the company relies on in the process of internationalization. Thus, the role of the internal market in the network model can be great enough. The Born Global companies, on the contrary, can have no internal market at all, and actually carry on business all over the world since the earliest stage.

Psyhic distance. Within the framework of the Uppsala model, cultural affinity is the main factor determining the choice of market for entry. The network model does not attribute any special significance to this factor, neither does the Born Global model.

Role of the enterprise's strategy. The Uppsala model does not suggest any differences depending on the strategy chosen by the company. According to the network model, the enterprise's situation is to some extent a result of the chosen strategy. Unlike the first two models, strategy is critical for Born Global in the question of internationalization.

Market advantage. The Uppsala model suggests that the main market advantage of an enterprise is the experience it has accumulated in the process of internationalization. According to the network model, the key market advantage is the resources of the network and the enterprise's access to them. For Born Global, the main advantage is the experience and knowledge of the founders or the managerial team.

Role of business networks. The classical Uppsala model does not attribute any special significance to the role of business networks in the question of internationalization. Nevertheless, the updated version takes this role into account to a sufficient extent as one of the process's factors. Within the framework of the network model, business networks and their resources are the base for the

process of entry into international markets. Born Global often use the existing network resources in the process of internationalization, especially in cases when the enterprise's own resources are not sufficient for entry into international market. Consequently, the role of business networks in this model can be quite significant.

Vision of the foreign market. According to the Uppsala model, foreign markets are a territory of uncertainty and risk. Minimizing the risks associated with that, the enterprise enters the international markets gradually. The network model considers foreign markets as a continuation of the company's business network where the enterprise has to find its own place. For Born Global, the markets of other countries present, first of all, new opportunities.

International experience and knowledge. Within the framework of the Uppsala model, experience and knowledge on the process of internalization are acquired and accumulated inside the enterprise itself. The network model suggests that they are in the business network, and the enterprise's access to them determines the success of the process. It is characteristic of Born Global that such experience is possessed by the founders or the managerial team.

Decisions on market commitments. According to the Uppsala model, market involvement is a sequential process, and decisions related to it are made slowly and cautiously. In the network model, these decisions are determined by the enterprise's business network and its position there. Born Global usually make such decisions quickly and in sizeable volumes.

The differences between the models are illustrated in Table 2 below.

All the considered models of internationalization describe the processes of small and medium-sized enterprises' entry into international markets. Nevertheless, they present quite different views on the process. Despite of the differences, they should not be considered as substitutes for one

Table 2. Comparison of internationalization models

	The Uppsala model	The Network model	Born Global
Level of analysis	Individual enterprise	Business network	Individual enterprise
Reasons for internationalization	Saturation of the internal market	Depends on which one of the four situations the enterprise is in	Growth and search for new possibilities
Capacity for internationalization	Acquired by the enterprise in the process of internationalization	Depends on the network's resources	Depends on the experience and knowledge of the founders / managerial team
Time before internationalization	Slowly and gradually	Depends on which one of the four situations the enterprise is in	Extremely quickly or instantly
Approach to internationalization	A step-by-step process, reactive and opportunistic	Depends on which one of the four situations the enterprise is in	A very fast, proactive and structured process
Speed of internationalization	Low	Depends on which one of the four situations the enterprise is in, from low to high	High
Role of the enterprise's internal market	Great. Companies start the process of internationalization after they have used up the possibilities of the internal market	Quite great. The resources of the business network are mostly the resources of the internal market.	Small. The internal market may be absent.
Psyhic distance	An extremely important factor influencing choice of the market	Not a significant factor within the framework of the model	Has no significance for the choice of markets
Role of the enterprise's strategy	Has no decisive importance	Depends on which one of the four situations the enterprise is in	Extremely important
Market advantage	The enterprise's accumulated experience	Access to the network's resources	Skills and knowledge of the managerial team and command of technologies
Role of business networks	In the classical model it has no significance, in the updated variant it is one of the factors of the internationalization process	Extremely great	Often has a great significance
Vision of the foreign market	The foreign markets pose a risk and uncertainty, the enterprise avoids high risks and minimizes them	The foreign markets are a part of the enterprise's business network to a greater or lesser extent	The foreign markets present additional possibilities
International experience and knowledge	Acquired only in the framework of the enterprise	Acquired in the framework of the business network	Possessed by the managerial team / founders
Commitment decision	Gradual and step-by-step	Depend on the business network's resources and the enterprise's position in it	Quick and sizeable in volume

another. These models are rather descriptions of different scenarios, which can be to a greater or lesser extent a case for certain enterprises. As any model, they constitute generalizations aimed at identifying and systematizing the most typical and common features characteristic of different approaches to internationalization.

2.5. Review of factors influencing internationalization of SME

The process of internationalization of small and medium enterprises is holistic in its essence and requires the integration of strategic thinking, strategic actions, emerging developments, luck, and necessity (Johanson and Vahlne, 1990). Interrelated decisions within this process can be viewed and analyzed at various levels, thereby clarifying the relationship between theoretical constructs. The personality, skills, values, and motivation of the entrepreneur influence their behavior and decisions (Chrisman, Bauerschmidt and Hofer, 1998). In such a way, the key decisions of the entrepreneur, their strategy and management practice affect the actions of the company (Cooper, Gimeno-Gascon and Woo, 1994) in relation to the identified opportunity. At the company level, there is the entrepreneur’s influence, which is necessary to combine competences, abilities, and resources (Eisenhardt and Martin, 2000) as part of the strategic and tactical activities of the company. Such operations include individual solutions, processes and actions aimed at exploiting opportunities in both the home and international market. It is important to note that the degree of entrepreneur's influence on the firm and vice versa is not stable and changes depending on time, specific company, and other factors (Jones and Coviello, 2005).

The process of internationalization, which includes interrelated decisions and their consequences, is affected by many external and internal factors called internationalization drivers. It is assumed that drivers have an impact on the entrepreneur's tendency to expand their activity, on the way in which the owner/manager sees opportunities and acts in relation to them, as well as on the way they combine resources and strategies for exploiting identified opportunities. Thus, the process of internationalization of small and medium enterprises is a complex social phenomenon, the analysis of which requires a multi-theoretical approach (Jones and Coviello, 2005). The studies also note the need to incorporate entrepreneurship issues into

the research of the internationalization process – in particular, in relation to small and medium enterprises (Zahra, 2005). Despite the progress made in combining these areas of scientific knowledge, the development of models based on the empirical context is still an important scientific task. In turn, such models can be the basis for targeted research of certain sets of theoretical constructs (Jones and Coviello, 2005). Despite its narrow focus, the development of such specific models can gradually and successfully contribute to the understanding of the broader and more complex area of internationalization of small and medium-sized enterprises.

Many factors influence enterprise internationalization process and such a process can be considered from different viewpoints and within the scope of different disciplines (Madsen and Servais, 1997). Related research indicates rather dynamic than static nature of this process (Coviello and McAuley, 1999). Majority of research considers results of internationalization and analyzes the factors resulting in company activity on different markets. Yet, mostly such the studies discuss a fait accomplishment. Wiedersheim-Paul, Olson и Welch (1978) note that firm activity before beginning of exporting activity determines the feasibility of internationalization process.

Coviello and McAuley (1999) investigated internationalization process of 16 different small and medium enterprises. Within the scope of this research they concluded that the use of a single empirical approach is not enough for completion of a comprehensive analysis of this process. Thus, it is better to incorporate several empirical approaches at designing of the models explaining internationalization of small and medium enterprises (Coviello and McAuley, 1999). Moreover, existing research outline the high importance of integration of the research in internationalization and entrepreneurship to obtain more detailed knowledge regarding internationalization process of small and medium enterprises (Buckley, 2002). Concept of entrepreneurial internationalization behavior has been developed within the scope of such an integration (Jones and Coviello, 2005). This concept considers international entrepreneurship at company level and adds up the new level of analysis of a single entrepreneur. Hence, it is logical to assume that the key decisions made by an entrepreneur as well as incorporated strategies and management practices directly affect company activity (Cooper, Gimeno-Gascon and Woo, 1994). The relationship between entrepreneurial qualities and company activities suggests that entrepreneurial personality has an important impact and enables pooling of

resources and competences within an enterprise (Eisenhardt and Martin, 2000). The entrepreneurial qualities associated with the ability to pool resources for exploiting existing market opportunities such as commercialization of innovations are directly related to company internationalization (Oviatt and McDougall, 1994).

Taking the abovementioned factors as well as used traditional models of internationalization of small and medium enterprises into account, the following aspects were employed at model development:

1) Entrepreneurial personality traits
2) Opportunity recognition
3) Available resources
4) Business networks
5) Psychic distance
6) International niche market

Let's analyse each factor and its role in model development in more detail.

2.5.1. Entrepreneurial personality traits and Opportunity recognition

Entrepreneurial personality traits regarding ability to pull the resources for the purpose of exploiting existing market opportunities such as commercialization of innovations are directly related to SME internationalization issues (Oviatt and McDougall, 1994). Considering the fact, that for small company normally the resource is very limited, the ability to spot market and find proper opportunity is very limited. But, the ability to spot market opportunities and use them with the help of combinations of personal traits and enterprise resources can become the basis of competitive advantage (Kirzner, 1973). Research expertise also shows that entrepreneur's perception of market opportunities and his understanding of how a company can use them can be considered a competitive advantage (Zahra, Hayton and Salvato, 2004).

2.5.2. Available resources

Any theory about resources implies management or ownership of resources in one way or another. When it comes to research related to small and medium-sized enterprises, there are

various assumptions regarding the ownership and management of resources since in reality such the company rarely own or have a control over significant resources. Small and medium enterprises are determined by their actions rather than resources they control (Zahra, 2005). Thus, resources ownership is not mandatory for small enterprises, and their ability to manage existing resources in an innovative way is much more important when it comes to ensuring the value allowing such company to compete with larger and supposedly richer competitors. Such companies rely more on how they compete in both the domestic and international markets. Consequently, the focus should be on such intangible assets of small and medium-sized enterprises as organizational culture, business relationships and ability to innovate (Hamel and Prahalad, 1994). Every employee is an important asset for the company, therefore axing the cost and reducing personnel is highly unfavourable solution. Competitive advantage of small and medium enterprises lies in proactivity, attitude toward risk and innovation (Zahra, 2005). Research expertise in innovation activitity of small and medium enterprises, in particular, with regard to identifying market opportunities, building a value chain, choosing areas of activity for entering international markets, points out a crucial role of entrepreneurial role of the entrepreneur in making such decisions (Zahra and Garvis, 2000).

2.5.3. Business networks

Business networks contribute to internationalization process by providing access to the market, distribution channels, contacts, and even sources of financing (Oviatt and McDougall, 1994). Thus, relationships within business networks are intangible resources that are necessary to further growth of a company (Coviello, 2006). In this regard, it is important to note that existing research expertise points to the fact that small and medium-sized enterprises employ both a step-by-step approach to internationalization process and resources from their business network (Coviello and Munro, 1997). Business networks in the process of internationalization allow small and medium-sized enterprises to overcome the difficulties associated with the size of a company and level out the effects of cultural and geographical remoteness (Coviello and McAuley, 1999).

2.5.4. Psychic distance

Psychic distance is an important criterion for the choice of a market for internationalization within the Uppsala model (Johanson and Vahlne, 1977; Johanson and Vahlne, 2009). Researchers in the field of international business argue that beliefs and views of owners/managers influence as well as are influenced by the gradual growth of involvement in international markets (Cavusgil, 1984). As a result, an evolutionary process can be traced, and at the beginning of such a process, the entrepreneur was not interested in international markets and gradually began to explore and assess the opportunities in various markets. Gradually becoming more confident players on the international market, entrepreneurs are expanding their business to more distant and unfamiliar markets, thereby becoming more involved in international activities (Coviello and McAuley, 1999).

2.5.5. International niche market

The processes of entry of small and medium enterprises into international niche markets are rather poorly addressed in research related to internationalization processes due to fuzziness of the concept of niche (Stachowski, 2012). Nevertheless, studies show that personal and business networks represent the best basis for entering the international niche market (Satchell and Marriott, 1996). In addition, a strategy used to enter international markets with reliance on clients rather than countries, provides good results for small and medium enterprises (Zuccella and Palamara, 2006). Finally, research confirms that the client-oriented strategy for entering international niche markets is linked to financial success of the internationalization process of small and medium-sized enterprises (Hagen and Zucchella, 2011).

3. THE COMPANY AND BUSINESS MODEL

DECK Engineering (DE) is a multi-discipline Engineering and EPC company with extensive experience in the design and manufacturing of wide range of equipment for Oil&Gas and Marine industries. The experienced management and personnel execute projects from study phase through to completion covering all stages and providing exceptional support, as a consequence company conceptual engineering has strong practical influence.

The company was founded in 2013 with focus on Norwegian Continental Shelf (NCF) clients. In 2013 everyone was talking about lack of engineers on the market. Demand for engineers in Norway was so high, that educated people with experience in the technical fields has arrived to the country from different European countries, Middle-East, Asia and other continents. Taking into account relatively small psyhic distance and existing relationships with people involved in Oil&Gas business, decision to create new engineering company was obvious at that time.

From the first days DECK Engineering offered its clients both engineering and turn-key deliveries. Engineering services which are being separately sold comprise mechanical and structural engineering, and structural analysis services. However, range of engineering services in the portfolio is much wider, because such disciplines as electrical and automation, hydraulic, piping and instrumentation are often a part of the added value in case of the turn-key projects.

The list of enineering services:

1) Concepts and studies
2) Mechanical Engineering
3) Structural Engineering
4) Structural Calculations
5) Electrical and Automation
6) Piping and Instrumentation
7) Hydraulic

Another mandatory part of any turn-key project is procurement, manufacturing and testing. As DECK Engineering doesn't have it's own factory, manufacturing is outsourced to the partners, mainly located in Estonia. Most of the manufacturing projects also require a different number of the mechanical, hydraulic, electrical etc components, which needs to be selected and purchased from the distributors. Therefore, procurement is also one of core disciplines and DECK Engineering tends to work close with partners, who in addition to technical sales of the components is also capable of delivering a proper technical support during the selection, installation or service stages. Such a partners is very important part of the business, thereofore relationships with them needs to be carefully maintained.

List of outsorced services DECK Engineering offers to cover the manufacturing part of the projects:

1) Welding, Assembly and Painting
2) Mechanical assembly
3) Electrical and hydraulic outfitting
4) Project Management
5) Procurement
6) Quality Control and Certification

DECK Engineering has acquired first contract from the market in just 4 months. In 1 year time it was employing 10 engineers, who have been doing 95% of the work either directly to the Norwegian companies or via local Estonian sub-vendors for the Norwegian companies.

3.1. Changes in company portfolio

In 2013 the oil price was historically high (120 USD per barrel) and nearly every company on the market was investing or going to invest in near future. Noone really considered market collapse as possible scenario for the near future. Largest and most reputable industry expert organizations have published market reports with very promising and positive outlooks until 2030 and even 2050. Perspectives for the hydrocarbons were projected in a very positive manner. But in Summer 2014 oil price started to fall down and resulted in the global hydrocarbons industry crisis, which has influenced every company operating in oil&gas segment with offshore operations being hit the most.

All the companies, starting form oil giants and ending up by small sub-vendors have initiated cost saving programms and axed hundreds of thousends jobs worldvide during 3 years. For small engineering company from Estonia, which has been providing subcontracting engineering services for the small and medium firms in Norway it was a very serios pushback. In 2014 90% of DECK Engineering turnover came from Norwegian offshore Oil&Gas clients. In 2017, the share of offshore projects has felt down to 5%.

It is very good example of the consequences for the company, which did not diversify it's portfolio in right time. End of 2016 was very critical for the firm and management of the company was preparing to announce bancruptcy. However this did not happened thanks to a several new projects from the shipbuilding, energy and machine-building industries. It changed the porfolio of the company and forced DECK Engineering to look for a new markets.

In the end of 2018 DECK Engineering is still a small engineering and epc company, employing 10 engineers and operating in the shipbuilding, oil&gas, energy and machinery industries. But now the company is facing new challenge. Today it is looking for a change in the business model, which is driven by adding new product lane to the portfolio.

3.2. The product

After being 4 years on the market with engineering services, DE has finally found own niche product – Instrument Deployment Units (IDU). IDUs are used to deploy Multibeam echosounders or USBL (ultra-short base line) sensors from the ship hold through the full of the vessel into water. It is used for conducting subsea research, assembling underwater infrastructure, or drilling below the seabed. Such an instruments are categorized as very sensitive equipment to the vibrations and deployment precision. Therefore, IDUs must be as resilient and sturdy as the ship itself. They have to withstand a corrosive aquatic environment, weather severe storms, and provide a secure platform for the most sensitive underwater acoustic systems.

IDUs are designed with durable low maintenance components and built using precise machining, laser measurement, and non-destructive testing techniques. Company constructs its

clients' deployment units on demand using the highest industry standards and marine-grade materials. The robust units can withstand thirty years in the most caustic Offshore conditions. Neither arctic cold nor tropical heat are a match for the rugged IDUs. Rigid, low-vibration units safeguard sensitive acoustic positioning systems and enhance the capabilities of your most sophisticated instruments. Sturdy IDUs keep sonar, echo sounders, and USBL steady and secure, which enhances the precision and accuracy of underwater data collection and telemetry and makes offshore and underwater operations safer and more profitable.

The innovative IDUs use standard components designed and manufactured by trusted global companies so the clients can get spare parts no matter where they're located. Based on the requirements, vessel type, or application area, DECK Engineering will configure the instrument deployment unit for Through-Hull, Under Hull, or Side Pole Deployment. In addition, a wide array of features to further customize the units are available. Options include:

1) electrical or manual gate valves,
2) sea chests and inspection chambers,
3) automatic hull gates,
4) adjustable instrument heads,
5) low magnetic versions,
6) standard or intelligent control systems.

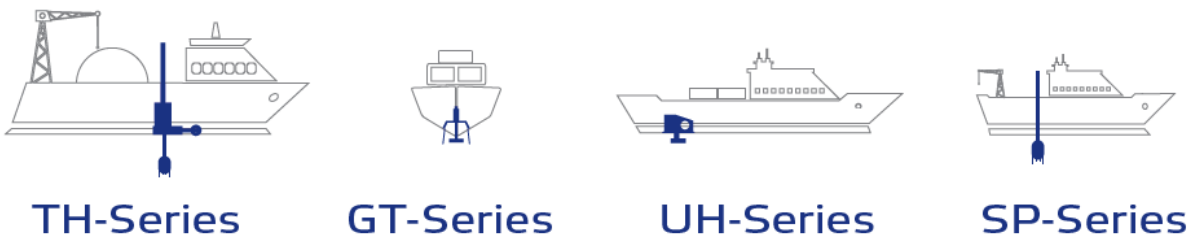


Figure 6. Types of Instrument Deployment Units (IDU)
Source: DECK Marine Systems brochure, 2018

3.3. Market challenge

Since the company began manufacturing own standard products, the new question arised: how it is going to be promoted on the market. So far, DECK Engineering has been actively promoting the services related to engineering and project manufacturing. Now, the company has its own product, what is definitely a very good for the company. But this matter maight be confusing to the company partners, who are used to work with DECK Engineering as with trustful and experienced engineering services provider. If they start feeling risk of shifting the company focus, they can consider this matter risky for their business, because everyone understnads, that adding own product to the portfolio will influence the ability to allocate the required resource to the fird parties when needed. It will affect the priorities of executive management as there will be a need to make a choice between development of in-house product or providing of the services to the external comapany. But it took years of hard work to establish a decent reputation, and it is very unfavorable to loose it due to just one wrong move. Considering that 90% of the company turnover comes from 5 - 6 key clients, losing any of them will unfavorably impact financial stability of the company. At the same time, it is important to mention, that company cannot completely cover own budget by means of servicing existing engineering customers only and withot having a new product in the portfolio would be forced to axe costs. For small company with 10 employees that would mean loosing valued engineers, who have been developing together with the company and who have a lot of know-how. So, the combination of the engineering services and the new product lane in one company is the only solution management and shareholders accept.

So, let's have a look at this matter from the marketing perspective. The company will be the same for both engineering services and Instrument Deployemnt Units. But shall the brand be the same as well? For existing clients DECK Engineering is well known, also it has certain reputation and publicity for the potential clients and industry partners. But what about IDUs? IDU have absolutely different target groups. It is very unlikely, that both engineering and IDU will be required by the same client. Even more, engineering is targeting Scandinavian and Estonian markets, but IDUs are targeting global market. So it is reasonable to separate the marketing of these 2 lanes in order to give more clear message to the market participants and not to confuse existing engineeering customers. Especially considering, that company management and shareholders do not wish to loose the engineering direction. Therefore, it was

decided that the new product should be manufactured and delivered to the market as a new and separate brand.

The name of the new brand is – DECK Marine Systems, which has separate Web, Facebook and LinkedIn pages, as well as new catalogue, logo and all other required identity signs. From this point of view it is ready to be brought to the global market. But in fact, neither company nor its employees have relevant experience in global marketing and sales. One thing is to sell in Europe, which is more or less home market for every European. Another thing is to sell to Japan, China or USA. But considering that Instument Deployment Units belong to specialized niche equipment with the market counted in dozens, or in good years, in hundreds of units annually, there is no way to ignore Asian and American markets. Thus, finding the right internationalization model for promoting of new brand on the international markets is very important issue.

It is worth to mention, that company was able to sell the first Instrument Deployment Unit by utilizing existing business network. The client, who requested this product, is from neighbor country with a short psychic distance. This example demonstrates realization of the key principles of Network and Uppsala models, which are also covered in Uppsala revisited model of 2009. This has happened on intuitive level, company just grabbed the opportunity, being in right place and in right time. Internationalization model as such did not exist in the compnay at that time (2016). Further in this paper the existing (2017) business model of DECK Engineering will be reviewed and analysed with regards to the items which are related to the internationalization.

3.4. Business model 2017

Business model in DECK Engineering was described at first time in 2017. See Figure 7. To better demonstrate the existing business model, a slightly revised version of the business model canvas from Osterwalder and Pigneur, 2010 was used. This version was created with the help of an external strategy consultant who has suggested to analyse the company processes in terms of the values which are important for a customer, who is ordering an engineering service from a regular partner. All described values represent a sort of code of ethics of an enterprise, which is undoubtedly a very important component of any business. In this paper let’s consider this

business model from the point of view of internationalization processes. Let's try to find out how this business model describes the approach to internationalization. To do this, the parts which are directly related to the process of internationalization shall be reviewed in more details.

The goal of the business model is to describe what value company offers, how this value is created and who consumes it. For bringing value to the market every company needs dedicated personnel, who will bring it to the market. In this model it is shownn in the main activities as sales and marketing. But when it comes to evaluation of the impact of this model on internationalization processes, the most important section is the one devoted to the client. This section describes the target groups of customers whom the firm intends to sell to, review customer relationship building aspects and defines channels which shall be used for the selling of the company services and products to the consumers. It is important to add, that at the moment of creation of this business model, DECK Engineering has already delivered first Instrument Deployment Unit to the market. Now lets have a look on every client related section in details.

3.4.1. Target groups

SME OEM – Small and Medium Enterprises, Original Equipment Manufacturers. Small and Medium Enterprises that produce own equipment. These are the companies that may be primarily interested in buying the engineering services as well as turnkey projects when appropriate. Being small or medium sized, such enterprises often do not have all the necessary disciplines in-house and prefer to buy required services when needed from sub-suppliers. This is due to insufficient amount of work for the dedicated disciplines to keep full time specialist in-house. In addition, the size of enterprises enables quick establishment of the contact and beginning of cooperation as it is much easier to spot the key employees involved in the decision-making process and establish a direct contact with them. The clients from this group are the key elements for the DECk Engineering since in fact all the clients the company is currently working with are representatives of this group. Therefore, it would be no exaggeration to say that today it is the most important group among the target customers indicated in the business model.

Drilling contractors are companies engaged in the drilling of wells for oil and gas, both offshore and land. Usually, these are large organizations that are more closed to small engineering firms.

Especially if the latter is located in another country with no oil and gas industry of its own. This is a very interesting group of clients for DECK Engineering, but so far the company has not been able to sell a single project to clients from this group despite of applied efforts.

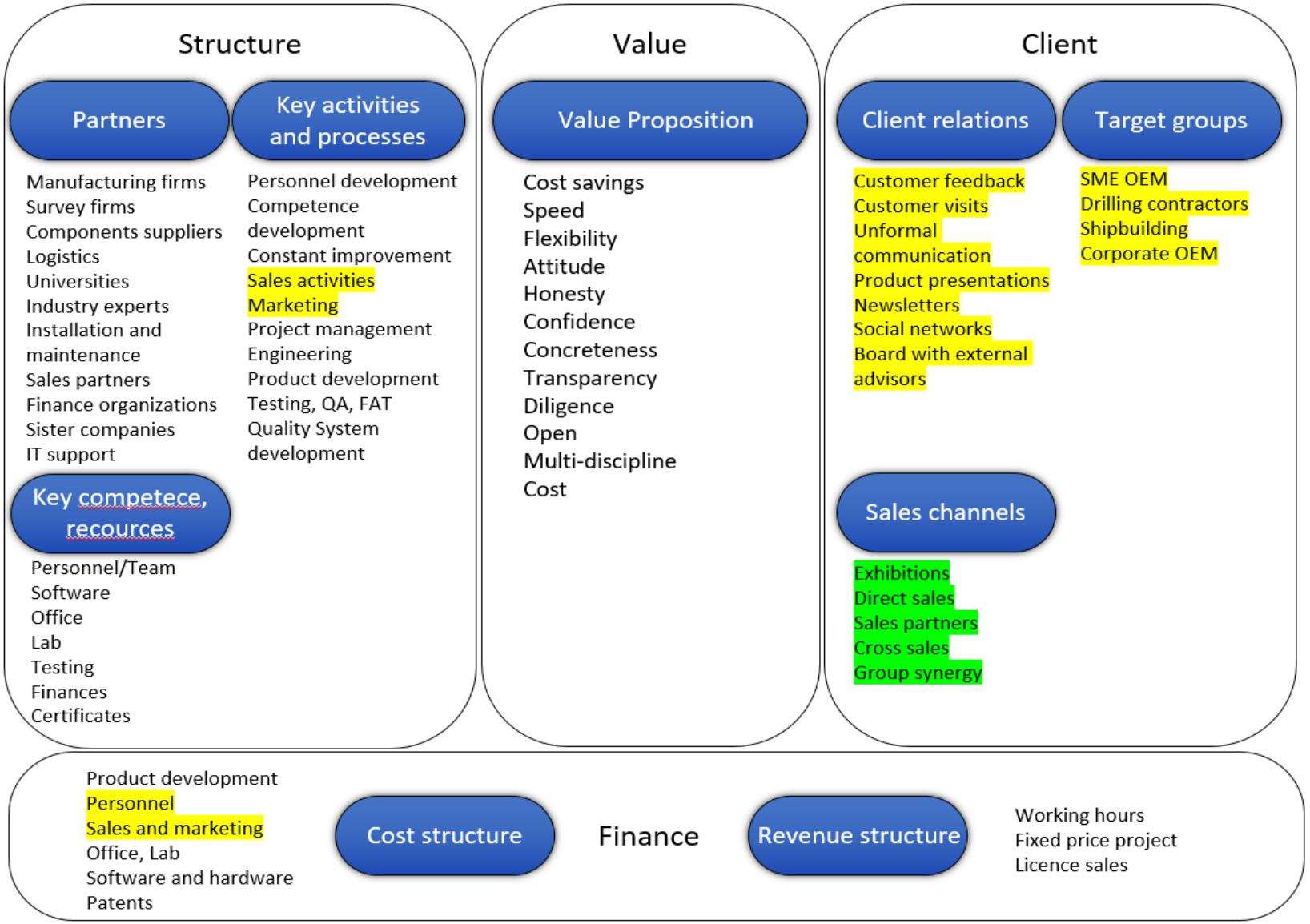
Shipbuilding is meant for shipbuilding companies. This group of clients is also interesting for the company, but, as in the previous paragraph, not a single project has been sold to shipbuilding companies directly. Only via system integrators or the companies, which delivers large package.

Corporate OEM is related to global corporations that produce different types of their own equipment. This group is also fascinating in terms of large volumes. Customers from this group buy from approved and preferred suppliers regularly and give a procurement plan for years ahead. But usually, due to the massive scale of these organizations, it is very difficult to find the person responsible for a particular issue. Processes in such corporations have been well established and set up over the years. Often, changing the existing order takes a lot of time, and, therefore, changing suppliers is usually possible only in case of an emergency or a strategic decision of the management. Another caveat is that often, having volumes, corporate customers are looking for a low price. To offer low rate, subcontractors must either have a large staff to reduce the cost by utilizing economy of scales; to use cheap labor, for example in Asia; or to be a tiny (boutique) company, where owners are also the main human resource and therefore company have no overheads. None of these options describes is suitable for DECK Engineering. Probably that is the reason why DECK Engineering has never worked with any clients from this target group as well.

So, what does it mean? There are four target groups of clients in the business model, yet the firm actually works only with one of them. The question arises, does it needed to have all these target groups in the business model? If yes, then sales strategy shall be changed in order to enable sales to these groups. But on the other hand, may be it is needed to leave only the group with an existing business clients and even more, focus on this group only ? Such an approach looks more reasonable for the company and shall be more resultative as well, as demonstrated by company experience.

Figure 7. DECK Engineering business model in 2017

Source: DECK Engineering



Another question is, can company with 10 employees cover needs, consider specifics and work equally well with clients from such a different target groups? The corporation and SME differ so much with their approaches and requirements that it is not possible to consider the nuances and risks with equal efficiency. In the case of small and medium-sized enterprises, contracts are often much easier, and communication is less formal. Personalized approach and building trusting relationships here are much more important. As for corporations, it is necessary to give in to their conditions and assume the increased commercial risks arising from the conditions of more large and rigid contracts. Moreover, the organization of sales and marketing in the case of targeting SMEs and corporations is also different. For corporate sales, people who have experience with Tier-1, 2, and 3 companies are needed; and for sales to customers from the SME group, people who are capable to discuss technical questions, able to build relationships and gain trust. Thus, the presence of such different target groups implies the existence of at least two salespeople in the company who would each focus on their own target group. When this business model was created, only one person was engaged in active sales – General Manager, who can spend for sales up to 50% of his time. Accordingly, instead of two dedicated full-time sellers, there is only one, who is working part-time while being constantly engaged in the management of the company, project coordination, costing, and so on. How effective can be in sales? Considering constant focus shifting, it is logical to assume that effectiveness of such a sales process is low. Table 3 shows existing vs required sales capacity based on 2017 business model.

Table 3. Existing vs required sales capacity based on 2017 business model (Figure 7)

	Existing sales resource, people	Required sales resource, people
SME clients	0,5	1
Corporate clients		1

Based on information from the company's management, the decision to hire two additional sales managers was not made due to the lack of financial capacity. Only the general manager continued to engage in sales. In fact, during the year, steps towards the development of sales to corporate clients were virtually absent due to the lack of human resources. Or rather, due to the financial burden being too high due to the hiring of two good sales professionals. Accordingly, when drafting a new model, this factor should be analyzed, and a new model should be developed considering the real capabilities of the company.

3.4.2. Sales channels

Exhibitions means visiting major exhibitions where new contacts can be established and information about the market and its participants can be obtained. Participation in exhibitions is an important part of sales because they allow personal meetings with both existing and new potential partners. As was written above, personal relationships and contacts are critical, especially in working with people from the main group of clients. At the same time, there is one important nuance. If a company wants to sell its product or service in international markets, it must take part in international exhibitions and exhibitions in those regions in which it intends to establish contacts. To date, DECK Engineering has not participated in exhibitions in Asia, America, and the Middle East. There has not been a single business trip to these regions. Therefore, it is assumed that the 2017 model covers only exhibitions in the European home market.

Direct sales – this is one of the most effective ways to establish contacts with potential customers, especially in the early development stage of the company, when it is yet unknown. Being a phone call or meeting at the exhibition, both can do the job and result in a sales deal. Unfortunately there is only one person half time (table 3), who is engaged in direct sales. At the same time, direct sales is the mostresultative channel, where working relationships were established with most of DECK Engineering customers.

Sales partners are agents and distributors who present a product or service in their home markets. The company does have such an agent; who successfully operate in their home market, which is also a confirmation of the Uppsala model by definition of psychic distance and the use of agents or distributors at the initial stage of expansion.

Cross sales are possible in the case of partnership with companies that complement each other and offer their solutions based on the capabilities of the partner, and vice versa. No such sales have followed so far.

Group synergy is a synergy between associated companies belonging to one holding. Due to synergies between companies, it is possible to organize the work of the networking model with the least effort. However, some mandatory requirements must be fulfilled for this purpose, such as appropriate training, regular information exchange, and existing communication chanels

with the people from the right target customer groups. The main problem is the last item; in general, sister companies have different specifics and communicate with employees of their clients who do not have the proper influence or understanding of the processes related to the services of the sister company. Accordingly, synergy sales channel is a passive one with almost no effect on DECK Engineering sales.

Based on the above mentioned, it is possible to highlight the three most important channels– exhibitions, direct sales, and sales partners. At the same time, it is essential to have a clear idea of the geagraphic regions and the services and products company wants to sell there. Participation in an exhibition in the home market is one thing, while participating in an exhibition in Asia, North or South America – i.e. in those regions where the company has no sales, no contacts, and no reputation – is quite another. The same applies to the active sales. The more markets a firm wants to be represented in, the more sales capacity it needs, and the larger a budget is needed to realize this. According to the Uppsala and Networking models, selling through partners is the least risky option. But, in order to find suitable partners, establish contacts, negotiate, train the staff, and get first results, a sufficiently high budget is also needed. Table 4 shows the comparison of the budgets for arranging of sales by hiring a dedicated seller for each region vs establishing relationships with distributors and agents.

Table 4. Comparison of the budgets for arranging of sales capacity, own vs partners

	Own sales capacity, EUR	Sales partner, EUR
Europe	94 000	32 000
Asia, incl Japan	132 000	47 000
North America	127 000	43 000
Total per year	353 000	122 000

3.4.3. Client relations

Customer feedback is needed to analyze customer satisfaction based on which important decisions are made related to the relevant processes.

Customer visits is a mandatory component both in case of direct sales, and in case of sales through agents. The customer shall be visited anyway, according to the experience of DECK Engineering, there was no sales done before having a personal meeting. The only exclusion is

lessons learned, which does not require physically travel to the client location, but could be held via onlne conference tools.

Unformal communication is also an important component, which allows establishing contact and talking in a more unformal atmosphere. This is especially important for a small company where a lot is based on relationship and trust.

Product presentations is a part of everyday routine for the sales person, who visits clients, exhibitions and often shows company presentation.

Newsletters can be arranged with the help of the company's internal resources. It might require to arrange relevant processes and staff training.

Social networks – maintaining pages on social networks is closely related to sending newsletters. This can be implemented at the expense of the same resource.

Board with external advisors is a very effective means of promoting the company, as the board usually invites people who have a definite influence in the industry and have access to important information about the market and its participants. But the implementation of this option today has not even been evaluated in terms of budget, and therefore is not existing anymore.

Relationships with clients is very important part of the everyday work for all personnel in the company. It always starts at the sales stage, but then it is being continued during project implementation. Therefore it is very important that every employee engaged in the process with customers shall act in a proper manner and value the customer relationship. However this is not influencing internationalization model, it shall be considered as part of the any client relations, include the ones DECK Engineering is going to find in the future. These actions are parallel processes that support the sales and internationalization processes. Some of them, such as visits and informal communication, are a very important component in company expansion.

3.5. Development of focused business model

Despite the 2017 model is has been creating by high efforts of the key employees, it focuses on the company processes and values in too wide perspective. In terms of this paper and internationalization model for the DECK marine Systems it does not handle IDU product lane as a separate business unit. Therefore it is impossible to make an adequate decisions for the internationalization of the IDUs. Therefore, and to provide right input to the processes and decisions associated with the internationalization process, the new business model focused on the DECK Marine Systems and its products is proposed.

Considering that IDU is very specialized niche product, and its market is very small, DECK Marine Systems shall target all the regions, where main shipbuilding related activities are concentrated. These are normally concentrated in the same places where main shipbuilding facilities are located. It is Europe (Germany, France, Great Britain, Italy, Finland, Norway), Russia, Asia (including Turkey, China, South Korea, India, Japan), Australia, and North America (USA, Canada). In each country, the market volume for the IDUs is from several units to several dozens of units per year at the best of times. Thus, for the sustainable growth DECK Marine Systems is forced to expand to distant markets.

IDU is a typical and almost standard solution for most regions of the world. The most important part of the product is a high-quality mechanical system, which, thanks to specially selected materials, ensures reliable operation of the device in any conditions. It is possible to draw an analogy with a vessel – often, large ships have no restrictions on the region in which they can navigate. IDU main componenets are located inside the vessel, where the environment is always predictable and controlled. Differences in certification for different registers can also be neglected, since they are minor and again, vessel built in Norway can go anywhere in the planet, therefore IDU built in Estonia can be installed on every vessel in the world. This means that the global market for this product is open.

This factor is not considered in the 2017 business model. At that time, several Instrument Deployment Units were produced during last year, means DECK Enginering has more knowledge about the product, market needs and target groups to be capable to create focused business model for the new brand. The proposed model for DECK Marine Systems brand is shown on Figure 8.

This version makes it quite clear what the company offers, what is needed for this, and who needs this product. But still this is not an internationalization model; therefore, again, internationalization related sections shall be highlighted and analyzed. When it comes to the drafting of the internationalization model, it is important that it will be natural extension of the business model.

3.5.1. Customer segments

Systems integrators. As was mentioned above, DECK Engineering has delivered several IDUs during last year, what also helped the company to better understand the market. Thus system integrators became the main group of customers to whom the company sells IDU as of today. These are usually the companies that have established positions in the domestic market, and normally represent different OEMs in their region. There are two types of system integrators; some collect as large a portfolio as possible and represent many different groups of equipment, which they can also supply as a systems for different applications. The others are highly specialized companies that are good only at a particular group of equipment and system. For example, representatives of the second group can be found in Europe; in Russia, the first group prevails.

Underwater acoustic instruments manufacturers. Enterprises from this group usually produce acoustic transmitting hardware and software to process received acoustic measurements data. But often they do not offer integration services for this equipment on board of the ship. Normally, companies from this group do not want to get involved in the process of installation and commmissioning of mechanical equipment, such as Instrument Deployment Units for instance. Therefore, as a direct target customer, this group is not so attractive in terms of sales volumes. However it is still very interesting from another point of view. Through this group, DECK can reach the buyers, who need IDU. Accordingly, DECK shall work closely with the companies from this group so that they were well-informed and, when necessary, either turn to DECK Engineering or advise it to the buyer.

3.5.2. Channels

Direct sales, customer visits, emails and calls represent important constituents of any developmental rocess. But in this case, this implies collaboration with representatives of the key client groups.

Partnerships result from analysis of the target client groups. Partners who are company representatives in different regions also play important role in company development.

Industry Exhibitions/Trade fairs shows the important events in company's work as participation in exhibition and with own exhibition stand lets company make a statement and express own intentions. But it is important to understand that such an involved participation in exhibitions worldwide will cost company hundreds of thousands of euro they won't simply have. Therefore, company can take part in exhibitions only when company representative is ready to show up the stand and share it with own partners.

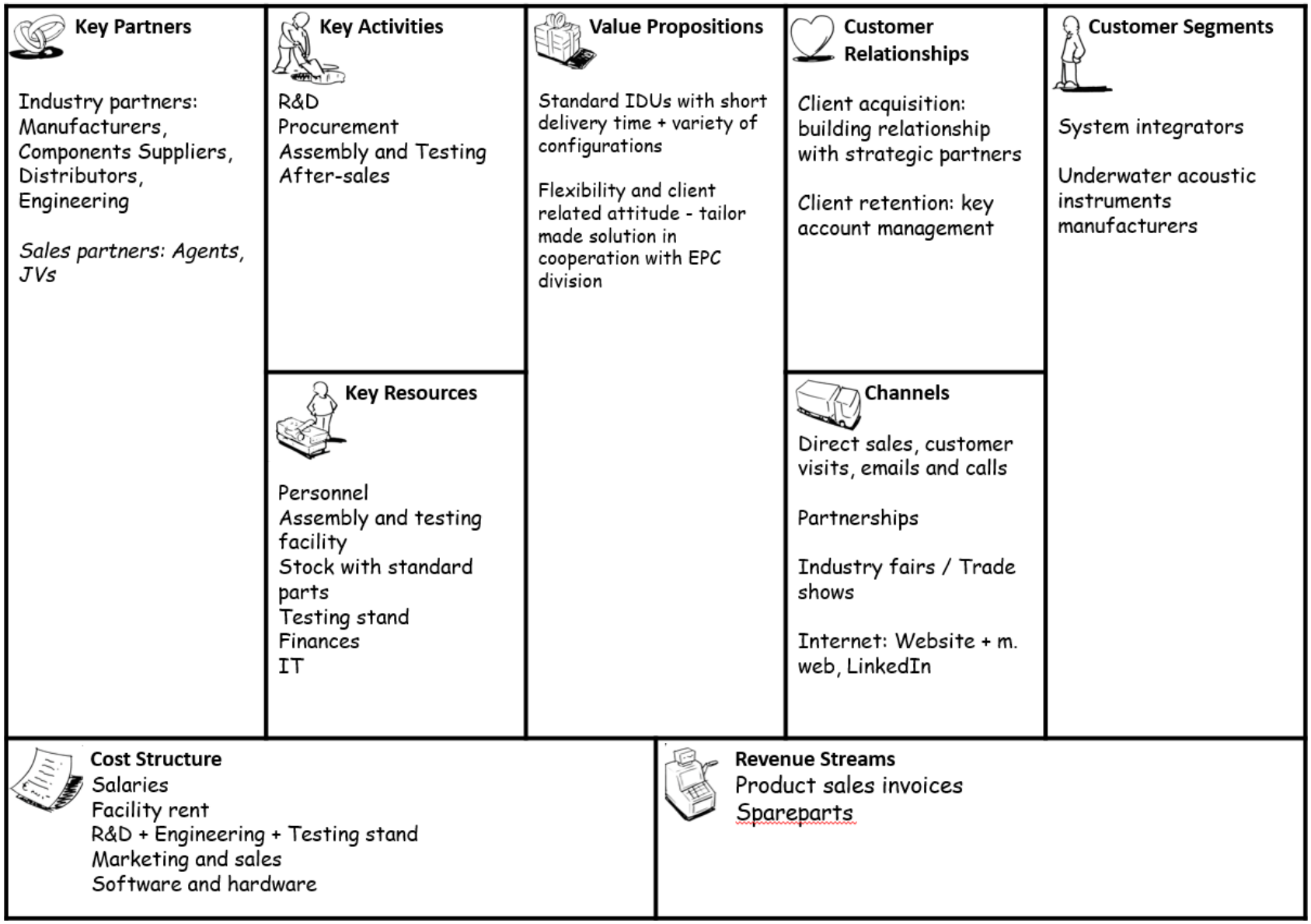
Internet: Website + m. web, LinkedIn – According to different research, majority of working population is performing information search via Internet. Doing this, older people mostly use desktop computer while younger ones use mobile phone or tablet. Respectively, it is important to own a fine webpage. Moreover, it is important for a company to maintain a solid reputation and regularly update webpages in social networks. Thus, potential clients will know that company is doing good and truly focuses on what it does.

3.5.3. Customer relationships

Client acquisition: building relationship with strategic partners – Since global market for this kind of equipment is relatively small, amount of potential partners is very limited. It means that it is necessary to establish long-term partnerships with new partners.

Client retention: key account management – Company is still in phase of development and therefore here the main income depends on a single main partner. Thus, it is extremely important to keep and evolve such a partnership.

Figure 8. Business model focused on Instrument Deployment Units



As described above, there are virtually no limits to this product. But there are limitations associated with brand recognition. Therefore, the goal is to make IDUs associated with the new brand. In order to achieve that, DECK Marine Systems shall become an insider in the region (Hilmersson, M. and Jansson, H., 2012). Holding independent marketing campaigns is expensive; therefore, the most preferable is to work through a system integrator who is well represented in the region and can serve as a distributor of the company's equipment in this region. It will be much easier and faster to convey information to the main market participants through them. But choosing such a representative is not an easy task. The success of sales in this region will depend on the choice. Means management shall place high priority to the selection of the distributors and building the relationship with them.

Apart from the criteria for representative's company, it is necessary to determine the regions and countries, as well as a clear plan for entering the markets of these countries. To make a decision, first of all, the market potential shall be understood, i.e. project availability and system integrator presence in this country. When comparing these two factors, preference should be given to the presence of system integrators, because they will be the main partners of the company in a particular region.

4. INTERNATIONALIZATION MODEL FOR DECK MARINE SYSTEMS

The proposed model for DECK Marine Systems internationalization is presented in schematic form in Figure 9. The model assumes that the enterpreneur discovers opportunities and manages the resources available to them, thereby contributing to the activities of the enterprise, both in the internal and external markets. Such an acivities comprise, market research, product development, establishment of business and personal relationships. The mediators of the internationalization process are psychic distance and business networks. Mediators influence both the internationalization process directly and the entrepreneur's actions. The direct influence of mediators on the internationalization process is described in detail in the respective models (the Uppsala model describes the role of psychic distance, while the network model focuses on the role of business networks). It is important to remind, that first Instrument Deployment Unit was sold due to the existing business network, and it was sold to the neighbor country. So, let us concentrate on the influence of business networks and cultural proximity on the actions of the entrepreneur.

As noted earlier, the entrepreneur's beliefs and perceptions of foreign markets not only affect the internationalization process, but also form as part of this process (Cavusgil, 1984). In the process of acquiring new knowledge about international markets, the company perceives them as less uncertain and thus is ready to manage access to new markets with more confidence. In such a way, in the learning process, markets that the DECK Marine Systems had previously perceived as distant and incomprehensible will become closer and more understandable. It will be learned to identify the opportunities and combine resources in the best possible way. Accordingly, psychic distance as a mediator of the internationalization process affects both the ability to discover opportunities in foreign markets and ability to manage the resources for exploiting these opportunities.

Business networks are a similar mediator of the internationalization process in the framework of influence on the DECK Marine Systems decisions. On the one hand, business networks themselves is a company key resource. Thus, expansion of the network of business contacts allows to manage resources in a different way. In addition, the acquisition of new business contacts may result in

new opportunities for the DECK Marine Systems or the possibility of operating those that were previously available. It has been already proved by the existing contracts and will play even more crucial role, when DECK will go further from the home market. Distributors for the IDU, represented by system integrators group, shall be found and relationships with them shall be built. It is not an easy task to built the relationship with the culturally diffferent people, however and inrder to succeed this process shall be overcame. Considering that building the relationship shall be done with the limited participants of the home market, which may play crucial role in the sales growth, the importance of such a business networks will be constantly growing.

Thus, the proposed model is a network of interrelated components (theoretical constructs), which corresponds to the statement that internationalization is a dynamic and holistic process. This process is influenced by many external and internal factors and, accordingly, may vary for each specific company. Therefore, the experience of entering international markets is unique for each company. In this regard, the logical question is how DECK Marine Systems will determine the sequence of entry into niche markets. Within the framework of the proposed model, such a sequence is determined by two key factors – psychic distance and a network of business contacts. Schematically, the process of internationalization of small and medium enterprises and the sequence of development of niche markets is presented in Figure 10. First of all, the company enters the niche market 1, which is characterized by both high psychic distance and access to business networks.

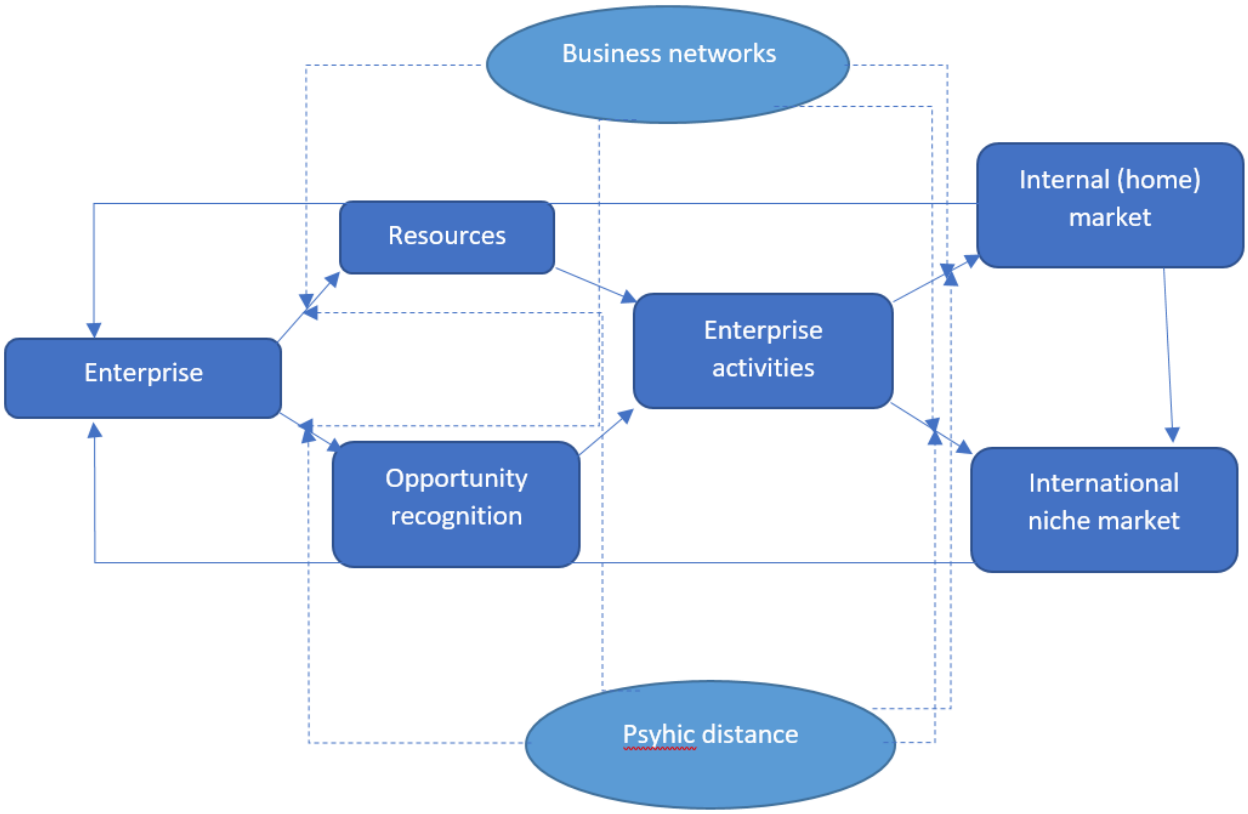


Figure 9. Internationalization Model for DECK Engineering

It is important to note that the role of business networks is, to some extent, more significant than the role of psychic distance due to the fact that business networks:

1) smooth the effect of cultural and geographical remoteness (Coviello and McAuley, 1999)
2) are the best basis for entering the international niche market (Satchell and Marriott,1996).

Accordingly, it can be expected that when choosing a niche market, a company will primarily rely not on psychic distance, but on the presence of business networks. In Figure 10, this fact is represented by the relative shift of exit markets towards business networks. In addition, despite the high psychic distance of the market 3, it can be expected that the company will choose market 2 as the second international market precisely because of the more developed business networks. Separately, it is worth noting the dynamic process of expansion of business networks associated with access to new markets. The development of each subsequent expands the network of business contacts of the company, which, in turn, contributes to entering new markets. Thus, this process is constantly self-reinforcing. Graphically, this fact is represented by a multitude of bilateral relations between niche markets and business networks of a company.

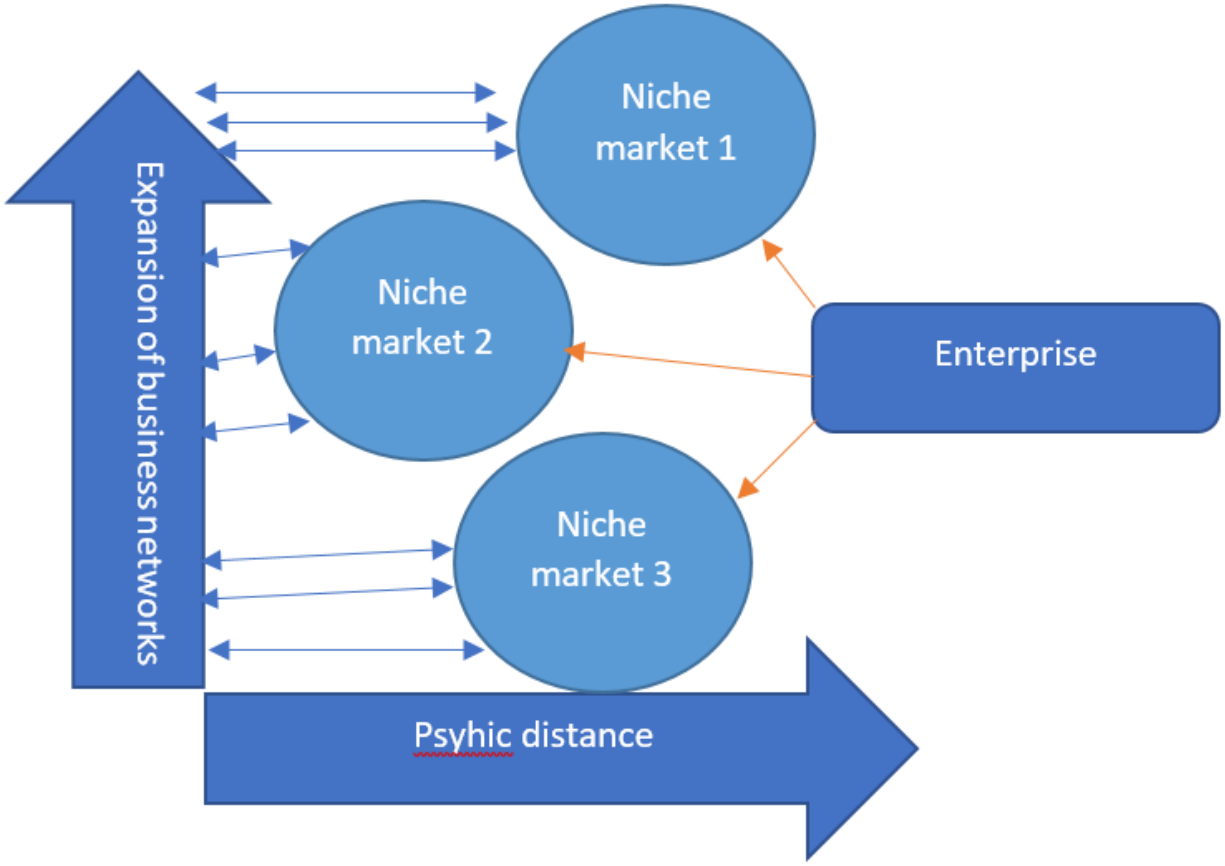


Figure 10. The Sequence of Entry into Niche Markets

Such a sequence allows companies to control risks, considering psychic distance, while at the same time seeking and creating new opportunities in the process of internationalization using business network resources. Accordingly, both factors reduce the level of uncertainty faced by means of an firm entering international markets.

And the last, the proposed internationalization model highlights the utmost importance of business networks. For DECK Marine Systems it means expansion of the business contacts and building relationship with them. It is very important and time demanding process, wich requires an availability of the relevant resource and capability. Considering the small size of the company, employee responsible for the business networks expansion shall be an associated person. As such an expansion is very critical for the company, the person shall have strong connections with the company. In practice that will also mean higher budget needed for an international expansion, than it used to be so far, considering that business representatives has to be founded yet.

SUMMARY

In the beginning of the thesis writing I was quite sure, that DECK Engineering is a born global company, because it exports 80% nearly from the start, it has small home market, and from now on it also has own specialized niche product with an ambition to sell it globally. However, DECK Engineering can't spread the product over the world quickly as true born globals can, because the product and its market are not scalable, what means, that there will be no investors showing an interst. Moreover management and team of the company has never spreaded the world with the own product. So, born global was disqaulified. However other interesting facts were discovered. First, DECK Engineering was capable to find, develop and sell its new product due to the business neworks from the neighbor market, what means small psyhic distance. Menas that combination of Network and Uppsala models is already working in DECK Enginering today, despite the absence of Internationalization model.

So, the next task was to understnad if such a combination is actually the best fit for today and whether it will remain the best fit for future as well. To do that, the customer related part of existing (2017) business model was analysed. But result was not acceptable, as the model has lack of focus and actually does not support the company development. It has 4 customer groups, every of them is fundamentally different from each others and requires dedicated personnel to get a results out of them even at home market. As DECK Engineering in fact does not have a capacity to run all 4 segments at the same time, it was decided to develop more focused business model, which will cover only one product group with defined customers target groups, whcih can be handled by 1 dedicated person. As result target groups of the clients were descresed to 2, which are very close toeach other and shall be run by the same person. At the same time this person shall be a very loyal to the company to avoid the risk, that if he quits, the company will be left without personal relationship with existing partners.

Developed Internatinalization models considers specific business needs of the company and at the same time it has a good mach with the real capability of DECK Engineering. The size and financial strength of the company plays important role in defining the suitbale internationalization model.

To avoid high financial risk, it was decided to work via agents or distributors. In other words, business networks. The importance of right partner in every region shouldn’t be understimated. Based on the DECK Engineering market analysis, the number one target group, who buys Instrument Deployment units is System Integrators. The companies, which deliver complete systems and represent other brands in home countries. Means, thier business model is built on working with OEMs, whom DECK Marine Systems (new brand of DECK Engineering) has become. The firther the system integrator is from homke market, the more important relationships factor becomes and the less impoartant psyhic distance factor appears.

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