

# Identifying and Tackling Entry Barriers in Canada

A study for the Dutch shipbuilding and marine  
equipment industry

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Abstract <p>This study aimed to retain Dutch prominence in the global maritime cluster by enabling the Dutch shipbuilding and marine equipment industry to respond to Canada's National Shipbuilding Procurement Strategy opportunities through identifying and proposing solutions to the market entry barriers existing in the Canadian shipbuilding industry.</p> <p>The reviewed literature focuses on internationalizing theories, market entry barriers and various tools to assess the attractiveness of international markets and industries. Michael Porter's Five Forces Model was applied to acquire a preliminary understanding of the Canadian shipbuilding industry. Subsequently, Pankaj Ghemawat's CAGE Framework was used for the identification of the entry barriers existing in this industry.</p> <p>The methodology of the research was qualitative in nature, and both the primary and secondary data was collected to carry out the research. The secondary data was primarily collected from industry reports. The primary data was collected using the semi-structured interviews, which were conducted in two stages. During stage one, three Dutch maritime firms and a Canadian-based agent were interviewed to identify the entry barriers to the Canadian shipbuilding industry. During stage two, five industry experts from both the private and public sectors were interviewed to explore feasible solutions to the entry barriers.</p> <p>The collected data revealed 10 entry barriers in total. Of these barriers, the following were identified as primary impediments to a market entry: Canadian business culture, local content requirements, information gaps regarding the local content requirement, high capital requirements, and Canada's large geographical size. In response, multiple solutions were proposed for dealing with each identified barrier to the market entry.</p>		
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**LIST OF ABBREVIATIONS**

NSPS	National Shipbuilding Procurement Strategy
NMT	Netherlands Maritime Technology
SMEs	Small and Medium-Sized Enterprises
GDP	Gross Domestic Product
OECD	Organization for Economic Cooperation and Development
CAD	Canadian Dollar
IRB	Industrial Regional Benefit
ITB	Industrial Technological Benefit
IP	Intellectual Property

## **1 GLOBAL DEVELOPMENTS AFFECTING THE MARITIME CLUSTER**

The Netherlands has an open economy and belongs to the top ten largest exporters in the world. The maritime cluster contributes to this proportionally with more than half of its turnover being realized abroad. In 2013, the total export of the cluster amounted over 21 billion euro. Being one of the most open economies in the world, the Dutch maritime cluster has heavily and successfully invested in its development. The cluster is powerful, innovative and enjoys a strong international position. However, this past performance is no guarantee for the future. (De Nederlandse Maritieme Strategie 2015 -2025 [The Dutch Maritime Strategy 2015-2025] 2015, 6.)

Worldwide, there are several developments affecting the Dutch maritime cluster. Demographic, ecologic, structural economic, and security policy changes all affect the Dutch maritime cluster to a greater or lesser extent. Consider for example emerging security threats, global changing production patterns, changes in energy consumption, technological innovations, climate change and progressive sustainable developments in production and consumption. (ibid.)

This shifts the geostrategic importance of the OECD economies in the world economy to emerging markets. For instance, the BRICS countries are currently undergoing spectacular developments in the global maritime industry. Consequently, the relative economic share of the U.S., Japan and the EU will continue to decline due to these emerging new powers and this affects global demand for products and services. Therefore, it remains essential for the future of the Dutch maritime cluster to continue to monitor global trends and respond to them accordingly. (ibid.)

The study aims to contribute to this need by responding to current market opportunities for the Dutch shipbuilding and marine equipment industry in the Canadian shipbuilding industry.



## 1.1 Background

The context of this study is the Dutch shipbuilding and marine equipment industry seeking for solutions to tackle the market entry barriers in Canada, which prevents the industry from capitalizing on Canada's National Shipbuilding Procurement Strategy (later referred as NSPS) opportunities.

NSPS is a procurement program, launched by the Canadian government in June 2010, to boost its domestic shipbuilding industry by investing 27 billion euros over the next 20-30 years, for the construction of new coastguard and naval vessels. The Canadian government performs a "buy national" policy within NSPS, however Canadian shipyards are not self-sufficient for all products, and thus may be partially dependent on supplies from abroad. Consequently, the Dutch Embassy in Canada addressed the NSPS business opportunities due to the extensive expertise of the Dutch maritime industry, as well as several large Dutch firms having established long-term relationships within the Canadian shipbuilding industry. (Embassy of the Kingdom of the Netherlands 2014.)

Moreover, industry association, Netherlands Maritime Technology (see sub-chapter 2.3, and later referred as NMT), addressed the same NSPS opportunities in Canada as well. NMT points out that there are great opportunities in Canada for the Dutch maritime industry due to the stagnating development of the Canadian shipbuilding industry since the 1990s. Consequently, the industry lost most of its knowledge and this loss of know-how causes the Canadian shipyards to look for innovative technologies, solutions and expertise from abroad. (Ekkelboom 2013, 14-15.)

NMT hosted in March 2013 a seminar for its members to address the NSPS opportunities. The information session turned out to be a success, resulting in trade mission to Canada in June 2013, which was arranged by NMT and the Dutch Embassy in Canada. Ultimately, six Dutch maritime firms and a research institution participated in the trade mission to explore the opportunities in the Canadian shipbuilding industry. Remarkably, the majority of these firms decided after the trade

mission, not to pursue their efforts to enter the Canadian market. High local-content requirements and bottlenecks in local regulations were assumed to be the primary entry barriers behind the drawback; however, no follow-up actions were taken to investigate and substantiate this matter further. (Skype session NMT 2014.)

## **1.2 Research Questions and Objectives**

This study aims to contribute to this need by addressing the following two research questions:

- What are the main market entry barriers that prevent the Dutch shipbuilding and marine equipment industry from capitalizing on Canada's National Shipbuilding Procurement Strategy opportunities?
- What are the possibilities to tackle the given market entry barriers in order to successfully enter the Canadian market?

The research questions were developed in collaboration with NMT and have the objective to explore how Dutch maritime firms can enter the Canadian market given the current constraints. Therefore, the findings of this study are aimed at NMT and its respective members who consider Canada as a potential target market.

## **1.3 Structure of the Research**

After the introduction provided in chapter [1], this study continues with a general overview of the Dutch Shipbuilding and marine equipment industry in chapter [2]. Subsequently, chapter [3] reviews relevant literature and chapter [4] substantiates the chosen research methodology, data collection and data analysis methods, and also outlines the various measures taken to verify the research results of this study. Thereafter, the research context in terms of the Canadian shipbuilding industry and the NSPS program is described in chapter [5]. Later in chapter [6], the research results are presented with the aid of Michael Porter's Five Forces Model and Pankaj Ghemawat's CAGE Framework. Finally, this study ends with a discussion of findings in chapter [7].

Figure 1, pinpoints the structural development of the research and illustrates how this study is organized.



FIGURE 1. Structure of the thesis

## 2 THE NETHERLANDS A STRONG MARITIME NATION

Centuries ago, the Dutch operated the world's largest fleet and established the Dutch East India Company. The Dutch East India Company is often considered to be the world's first multinational company and to this day the Dutch are still a leading maritime nation with a strong international focus. (Netherlands Enterprise Agency 2013.)

The Netherlands earned its reputation as the maritime centre of Europe due to its multifaceted maritime cluster which operates a very diverse fleet of sea-going vessels, Europe's largest inland shipping fleet, and Europe's biggest port, the Port of Rotterdam. Moreover, the Dutch maritime cluster is globally renowned for providing offshore services and manufacturing complex maritime solutions, which includes dredging vessels, high-speed patrol boats, construction vessels for the offshore industry, mega-yachts and short sea ships. (Government of the Netherlands 2013; Netherlands Enterprise Agency 2013.)

In 2013, 12,000 firms were active in the Dutch maritime cluster, which in turn employed approximately 224,000 people. This is about 2.5% of the total employment in the Netherlands. Furthermore, the cluster realized a total added value of € 21 billion in 2013, which amounts to 3% of the Netherlands GDP. (van der Aa, van Beek, van den Bossche, van Schijndel, Verheijen, & Winde 2014, 11.)

Figure 2 provides an overview of where most firms in the Dutch maritime cluster are located in the Netherlands.

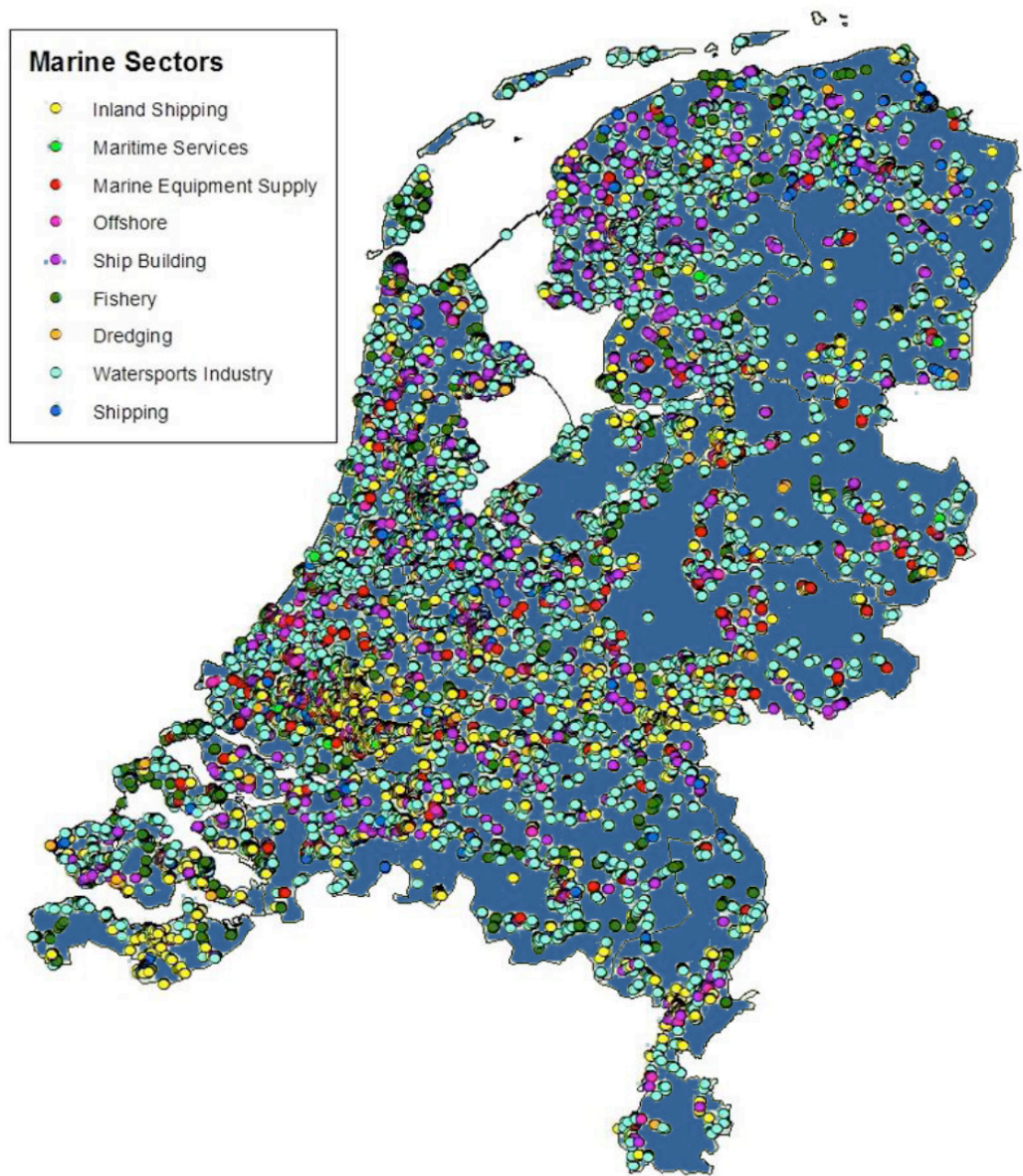


FIGURE 2. Overview of establishments in the Dutch maritime cluster (van der Aa et al. 2014, 12 edited)

Figure 2 clearly highlights that the majority of maritime related firms are located in the western part of the Netherlands and especially in the Rotterdam area (ibid., 11). Moreover, Figure 2 also lists the 11 subsectors that shape the Dutch maritime cluster. These sub-sectors are inland shipping, maritime services, marine equipment supply, offshore, shipbuilding, fishery, dredging, shipping, and the water sports Industry.

In the following sub-chapters, a brief overview is given on the Dutch shipbuilding and marine equipment industry, since the other subsectors do not fall under the scope of this study.

## **2.1 The Dutch Shipbuilding Industry**

The shipbuilding industry in the Netherlands is comprised out of shipyards and ship repair yards. The Dutch shipyards primarily undertake activities involved with manufacturing vessels for niche markets such as the construction of offshore vessels, specialized vessels (e.g. dredgers and complex multipurpose dry cargo ships) and mega yachts. Moreover, Dutch shipyards are likely to compete on quality, innovation and flexibility but not on price. (van der Aa et al. 2014, 44.)

In addition, there is a large number of ship-repair yards active in the Dutch shipbuilding industry. The size of these ship-repair yards are in some cases smaller compared to the scale of some shipbuilding yards. The Dutch ship-repair yards particularly focus on ship repair, conversion and maintenance demands that are related to many offshore activities in the North Sea. However, regular sea ship maintenance persists in this industry as well. (ibid.)

Figure 3 provides an overview of the past economic performance of the Dutch shipbuilding cluster.

2008		2009		2010		2011		2012		2013	
total in billion euro's	related to export	total in billion euro's	related to export	total in billion euro's	related to export	total in billion euro's	related to export	total in billion euro's	related to export	total in billion euro's	related to export
4,5	3,0	3,2	2,2	3,4	2,4	3,7	2,4	3,6	2,1	3,8	2,3
13%	13%	-29%	-28%	6,2%	9,3%	8,8%	-0,4%	-3,5%	-13,9%	6,4%	10,5%
% compared to 2007		% compared to 2008		% compared to 2009		% compared to 2010		% compared to 2011		% compared to 2012	

FIGURE 3. Annual turnover Dutch shipbuilding cluster 2008 – 2013 (NMT 2014a, 20 edited)

In 2013, the global shipbuilding industry showed its first signs of recovery with 136 new seagoing ships being contracted by Dutch shipyards. This amounts to 2.3 billion euros of order intake, which was the best performance of the Dutch shipbuilding industry in terms of order intake since 2008. (See NMT 2015, sector information.) In contrast, the deliveries of seagoing ships were still affected by the low order intake of the previous years. Dutch shipyards only delivered 77 seagoing vessels in 2013, representing a value of approximately 660 million euro. Furthermore, 114 inland and seagoing vessels were completed, which include tankers, small cutter suction dredgers, pusher tugs and river cruise vessels. Moreover, the Dutch mega yacht yards booked a very good year in 2013; 23 yachts were completed and 36 new yachts were signed into the order books that represented a value of more than 800 million euros. This was more than twice the amount of 2012. Finally, the Dutch ship-repair yards annual turnover slightly decreased in 2013 to 515 million euros, compared to 551 million euros booked in 2012. Maintenance and repair work on cargo vessels remained moderate due to the limited financial resources of ship owners. However, this was being partly compensated by an increase of activities on offshore vessels. (ibid.)

## 2.2 The Dutch Marine Equipment Industry

The Dutch marine equipment industry is comprised out of suppliers that offer products or services to the maritime cluster. In fact, the shipbuilding industry cannot operate without the existence of the marine equipment industry, since approximately 70% of a ships value is supplied by the marine equipment industry. (van der Aa et al. 2014, 84). The marine equipment suppliers deliver to a wide range of ships (e.g. cargo ships, yachts, and dredgers), and a wide variety of customers (e.g. shipyards and offshore firms). The products they deliver range from electronic and mechanical systems to coatings and interior solutions. The services they deliver range from engineering and maintenance services to project management and safety audits. (ibid.)

Figure 4 provides an overview of the past economic performance of the Dutch marine equipment cluster.

2008		2009		2010		2011		2012		2013	
total in billion euro's	related to export	total in billion euro's	related to export	total in billion euro's	related to export	total in billion euro's	related to export	total in billion euro's	related to export	total in billion euro's	related to export
5,7	3,0	5,4	3,1	4,95	2,7	3,3	2,0	3,4	2,1	3,4	1,9
17%	22%	-6%	1%	-8,3%	-13,2%	-33,3%	-25,9%	2,1%	3,8%	0,3%	-9,6%
% compared to 2007		% compared to 2008		% compared to 2009		% compared to 2010		% compared to 2011		% compared to 2012	

FIGURE 4. Annual turnover maritime suppliers 2008-2013 (NMT 2014a, 20 edited)

In 2013, 670 firms were active in the Dutch marine equipment industry, committed to delivering goods and services to national and international shipyards as well as other maritime related firms. Most of these firms are small and medium-sized enterprises (later referred as SMEs). The industry booked an annual turnover of 3.4



billion euros in 2013, which was basically the same compared to 2014. 2014 was viewed as more promising due to the high order intake of new ships in 2013. (See NMT 2015, sector information.)

### **2.3 Netherlands Maritime Technology**

Netherlands Maritime Technology (formerly known as Holland Shipbuilding Association) is a network of about 380 maritime related firms ranging from Dutch shipyards, marine equipment suppliers and service providers (NMT 2014b). The association aims to stimulate the development of technical innovations and clustering of know-how, and is committed to strengthen the presence of their members in overseas markets. NMT particularly focuses on areas related to trade, innovation and human capital. (See NMT 2015, about us.)

This study was assigned by the trade department of NMT. The primary goal of the trade department is to strengthen the international position of the Dutch maritime industry by promoting export through; organizing Holland Pavilions at global maritime exhibitions, arranging trade missions and other trade promotion initiatives. Furthermore, the trade department is committed to monitoring the “level playing field” of the industry in order to prevent unfair trade practices and tackling trade barriers. (ibid.)

The innovation department of NMT lobbies for Dutch and European legislation and tries to influence governmental policies on behalf of their members. Furthermore, they promote corporate social responsibility by advising members and organizing seminars, workshops and networking events. . (ibid.)

The human capital department of NMT creates awareness of trends within HR, ensures the preservation of maritime education, and provides specific maritime knowledge through trainings. In addition, they act as an information centre for questions related to employment and training, connect maritime education to everyday practices and are committed to building a maritime HR- network. (ibid.)

### **3 THE INTERNATIONALIZATION FRAMEWORK**

In this chapter the theoretical framework of this study is presented. The first part of this chapter starts with introducing the reader to the concept of internationalization since the area of interests of this study has its theoretical base originating from this field. Subsequently, this chapter leads into a more detailed review of two internationalization models; the Uppsala model and the Network Model of Internationalization. Lastly, this first part ends with describing various modes of international market entry and barriers that may prevent firms from entering a market in international context.

The second part of this chapter introduces the selected theoretical frameworks used for the empirical research of this study. Pankaj Ghemawat's CAGE Framework and Michael Porter's Five Forces model are presented here as methods to assess the attractiveness of international markets and industries. Finally, this chapter ends with describing how these theoretical frameworks are employed to conduct empirical research.

#### **3.1 Internationalization**

The concept of internationalization in economic context has been subject to widespread research ranging from marketing, international management, strategic management and SME management (Ahokangas 1998, 13-15). Gjellrupp (2000) claims that the term internationalization originates from the 1920s, when the phenomenon slowly replaced imperialism as the main organization principle of business transactions between foreign markets (1-2).

The theory foundation of internationalization can be traced back to the 1960s and 70,s where it almost simultaneously started in North America and the Nordic countries. However, a key difference can be found in the empirical basis since internationalization had already been developed for a certain period of time in North America, while it was still considered a rather young phenomenon in the Nordic

countries. Research in North America mainly focused on developed international operation modes of large mature firms, while Nordic research indicated a stronger interest in the relatively unknown characteristics of SMEs and their internationalization process. (Lehtinen, & Seristö 1999, 4.)

Nordic researchers, therefore experienced difficulties in employing North American internationalization models due to the significant differences in research objectives and context, hence they felt compelled to start their own theory building. Based on their own empirical research evidence and business experience, Nordic researchers concluded that the internationalization is a “multidimensional and dynamic phenomenon” which can be defined in different ways. (ibid, 3-4.)

Some of these definitions can be found in a study on past, present and future research of internationalization by Ruzzier, Hisrich, and Antoncic (2006). According to Ruzzier and colleagues (2006, 478), Welch and Luostarinen (1988) define internationalization as “the process of increasing involvement in international operations”. Johanson and Mattsson (1988) include a network (relations) perspective and describe internationalization as a “cumulative process, in which relationships are continually established, maintained, developed, broken and dissolved, in order to achieve the objectives of the firm”. However, this view seems to be incomplete as it simply focuses on relationships. The view of Johanson and Vahlne (1990) seems to be more comprehensive, they perceive internationalization as the “process of developing networks of business relationships in other countries through extension, penetration, and integration”. (ibid.)

Furthermore, it is important to elaborate on the earlier mentioned multidimensional aspect of internationalization. This means that a firm’s international activities can be grouped into “*inward*”, “*outward*” and “*cooperative*” activities. In other words, a firm’s engagement in international activities might occur when a firm exports its products across its own national borders, imports products from abroad or establishes a cooperative with a foreign firm. (Ruzzier et al. 2006, 480.)

However, despite of the holistic nature of internationalization, this study will mainly focus on outward, and cooperative internationalization activities since the scope of this research aims to find out; how Dutch maritime firms can *enter* the Canadian market.

### **3.2 Initiation of Internationalization**

In Hollensen's view (2012, 35), internationalization occurs when a firm expands its business activities such as R&D, production or sales across its own national borders. Internationalization in the context of large firms occurs in a relatively on-going process by engaging in various international expansion projects at the same time, step by step, over a certain period of time. In contrast, internationalization in the context of SMEs is viewed as a more discrete process, where each internationalization move is considered as distinct and individual (ibid.).

Prior to internationalization, managers utilize information to gain sufficient knowledge to initiate internationalization (ibid.). Figure 5 represents the different stages in the pre-internationalization process, and the rest of this sub-chapter will focus on the "internationalization motives" and "internationalization triggers".



FIGURE 5. Different stages in pre-internationalization (Hollensen 2012, 35 edited)

### 3.2.1 Internationalization Motives

For most firms the main motive to internationalize is to make profit. However, it is not just money that drives firms to internationalization but rather a combination of factors (forces) that results in a firm's decision towards the internationalization path. (Hollensen 2012, 35.)

Various scholars have studied the different forces, which encourage firms to engage in international activities. Some of them even imply that these forces are considered to be the most vital factors behind the internationalization process, as they are key in stimulating a firm to expand its activities abroad. (Pett, Francis, & Wolff 2004, 47; Knap, & Kronenberg 2013, 37.) An overview of the main internationalization motives is presented in Table 1.

TABLE 1. Main motives of internationalization (Hollensen 2012, 36 edited)

Proactive motive	Reactive motives
Profit and growth goals	Competitive pressures
Managerial urge	Domestic market: small and saturated
Technology competence	Over production
Unique product	Excess capacity
Foreign market opportunities	Unsolicited foreign orders
Market information	Extend sales of seasonal products
Economies of scale	Proximity to international customers
Tax Benefits	Psychological distance

In Table 1, a distinction is made between “proactive and reactive motives” of internationalization. Proactive motives point out a firm’s interest in exploiting unique competences or foreign market opportunities, while reactive motives refer to internal or external pressures in their current markets which force a firm to respond accordingly by changing its activities over time. (Hollensen 2012, 35; Knap, & Kronenberg 2013, 38.)

In addition, proactive firms consider internationalization more optimistically due to the existence of internal advantages that may help the firm expand successfully into a new international market. The internal advantage allows the firm to build competitive advantage that may arise from proprietary technologies, exclusive information on foreign markets, possession of special skills and know-how, or a differentiated and unique product. (Pett et al. 2004, 47.)

Contrarily, reactive firms consider internationalization as a counter measurement, in order to respond to conditions in their current markets. Such conditions may arise due to competitive pressures in their domestic market, utilization of idle operating capacity or a stagnating/declining domestic market (ibid.).

To conclude, proactive firms go international because they are encouraged too, while reactive firms go international because they are forced to (Czinkota, Ronkainen, & Zvobgo 2011, 257).

### 3.2.2 Internationalization Triggers

Several scholars extend the theory of proactive and reactive motives further by observing that internationalization only occurs if an internal or external factor in the business environments initiates the internationalization process of a firm. These factors are also known as “change agents” and act as “internationalization triggers” (see Table 2). (Czinkota et al. 2011, 259; Hollensen 2012, 41-42.)

TABLE 2. Triggers of internationalization (Czinkota et al. 2011, 259 edited)

Internal	External
Enlightened management	Demand
New management	Other firms
Significant internal event	Domestic distributors
	Banks
	Chamber of commerce
	Governmental activities
	Export intermediaries:
	- Export management companies
	- Trading companies

Table 2 shows that Internationalization triggers can be grouped into internal and external trigger". Internal triggers, such as the type and quality of management within a firm are essential to a firm's international activity. Dynamic management is important to gain early awareness of opportunities in foreign markets. Over the long-term, management's commitment, perception and attitude are considered as good indicators of international success. Managers with international experience, such as managers who have spent time abroad, speak a foreign language or who are particularly interested in foreign cultures are likely to explore international market opportunities sooner than later. Moreover, the entrepreneurial desire for continuous market growth and expansion by management, may simply encourage managers to look for opportunities across borders. Another major trigger could be a significant internal event, for example, the launch of a new product with international potential can serve as such event or new information regarding the use of current products in foreign markets. (Czinkota et al. 2011, 259-260; Hollensen 2012, 42-44.)

Conversely, the primary external trigger that impacts a firm's decision to go international is foreign demand. Foreign inquiries regarding products and services and other expressions have a significant effect on the urge of going international. Another key trigger could arise from competitive pressure from other firms, which are exploring new international markets. Therefore, trade association events and conventions where managers from different firms mingle and network often trigger major change. Furthermore, external organizations such as export agents, trade associations or governmental bodies, which interact with firms can increase international market interests by providing valuable information about foreign market opportunities. (Czinkota et al. 2011, 260-261; Hollensen 2012, 44-45.)

### **3.3 Internationalization Theories**

As mentioned earlier in sub-chapter 3.1, perspectives on internationalization research have varied from large versus small firms since the very early theory foundation of the phenomenon.



As a result, applying an internationalization theory developed for large firms could lead to inappropriate results if applied to smaller firms or vice versa. Therefore, one might think it is necessary to choose between the two research lines, however given the nature of the today's globalized economy, smaller firms face more and more often the same challenges as those faced by larger firms who operate in international environments. (Ahokangas 1998, 13-14.)

Moreover, since the Dutch maritime industry is represented mainly by SMEs but also larger enterprises, it is important to find internationalization models that cover aspects of general internationalization theory. For these reasons, the Uppsala and Network Model of Internationalization are reviewed in this sub-chapter. These models are one of the most frequently used models in internationalization research and have their empirical basis originating from research on SMEs to large sized enterprises.

### **3.3.1 The Uppsala Model**

During 1970s, Swedish researchers Johanson and Wiedersheim (1975) and Johanson and Vahlne (1977) developed the Uppsala model of internationalization. This model claims that the internationalization process of a firm occurs throughout a sequence of "incremental" steps. (Johanson & Vahlne 1977.) Based on empirical research gained from Swedish firms, the researchers found out that firms develop their international activities gradually, step by step, rather than making large foreign investments (ibid.).

Johanson and Wiedersheim (1975) distinguished these steps into four stages of international market entry, where each successive stage represents a higher degree of international market commitment (see Figure 6).

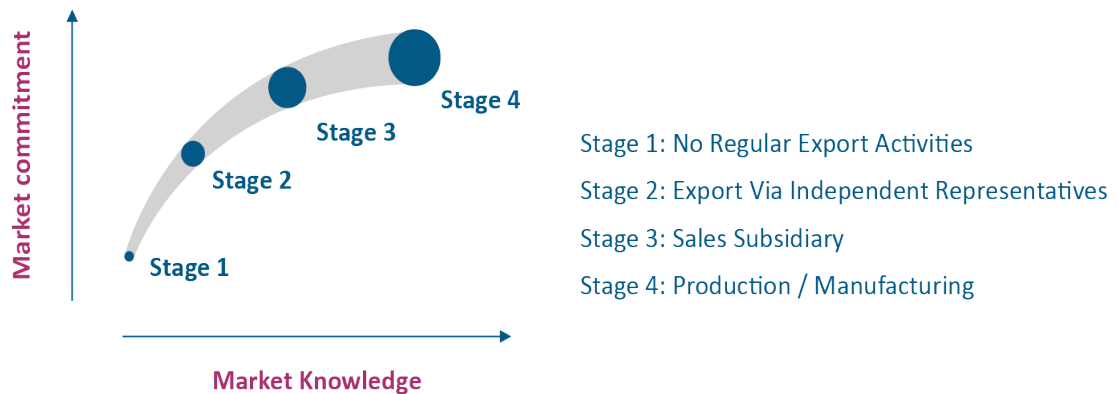


FIGURE 6. Four stages of international market entry (Tahir & Mehmood 2010, 12 edited)

As illustrated in Figure 6, the Uppsala model points out four stages of international market entry. The firm does not engage in any regular export related activities in stage 1 nor does it receive or send any information regarding international market opportunities. In stage two, the firm has established an information channel to the market and starts its export activities through an independent agent. The firm shifts to the third stage, after the firm has established a controlled information channel to the market and acquired sufficient market knowledge and resources in order to start a sales subsidiary. Subsequently, during the last stage, a firm may start its own production in the host country after gaining even more market knowledge and resource commitment. This series of sequential stages is also referred to as the “establishment chain.” (ibid.).

Johanson and Vahlne (1977) extend this theory further, by stating that the sequence of establishing activities in new foreign markets is related to the “psychic distance” between the home and host country. Psychic distance refers to “the sum of factors preventing the flow of information from and to the market, including factors such as

differences in language, education, business practices, cultures and industrial development.” This indicates that firms tend to first expand to nearby markets which they can understand easily and thereafter expand into more distanced markets. (Hollensen 2012, 57.)

Johanson and Vahlne (1977) developed a dynamic model to clarify the gradual process of internationalization. The dynamic aspect of this model illustrates that the result of one cycle of events forms the input for the next one (see Figure 7).

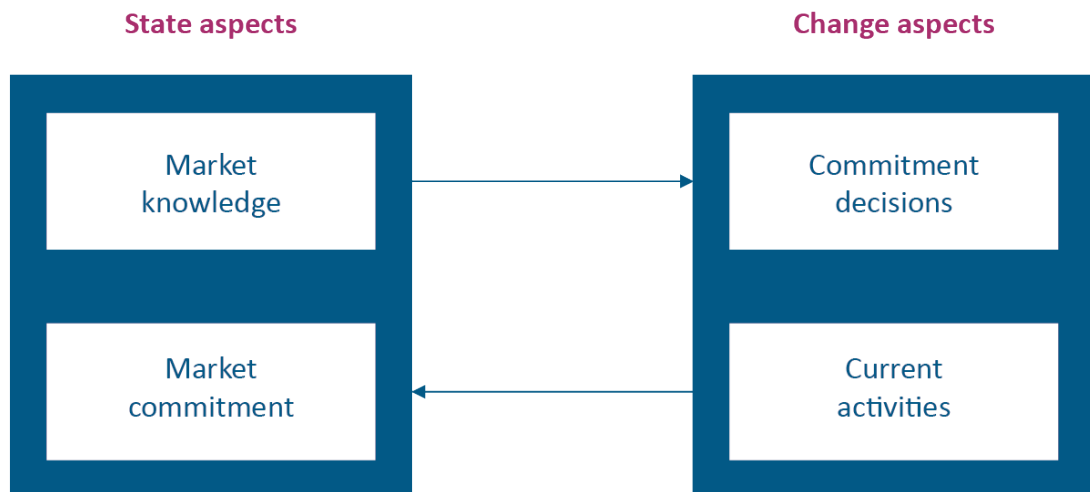


FIGURE 7. The Uppsala Model (Johanson & Vahlne 1977, edited)

The main structure of the model constitutes out of “*state*” and “*change*” aspects of internationalization. State aspects include resource commitment to international markets (market commitment) and knowledge about international markets and operations. Change aspects are related to decisions in terms of commitment of resources for international markets and performance of international activities. (Johanson & Vahlne 1977.)

The basic assumption provided by the model is that market knowledge and market commitment affects both commitment decisions and how current activities are performed, which in turn affect market knowledge and market commitment. Market commitment in the Uppsala model, is composed out of two factors, the “amount of resources committed” and the “degree of commitment”. The amount of resources committed can be seen as the size of the investments needed, such as marketing, organization and human capital, while the degree of commitment refers to the difficulty of identifying an alternative use for the resources and transferring them to alternative use. (ibid.)

Furthermore, the model distinguishes knowledge needed for international activities into general knowledge and market specific knowledge. General knowledge relates to operating knowledge in international market, which can be transferred across countries and thus stimulate geographic expansion. Market specific knowledge is gained through experiences in a particular market and is not transferable. A better understanding of a market will lead to a stronger commitment to the market and an increase in value of resources. (Hollensen 2012, 56.)

### **3.3.2 The Network Model**

The Network Model of Internalization was developed in 1988 by Johanson and Mattson and describes the internationalization of firms by considering the environment as a business network. Johansson and Mattson define these business networks as relationships between firms that engage in manufacturing, distribution, and use of goods and services. (Johanson & Mattson 1988.)

The basic assumption of the model is that firms operate in networks and their position in their internationalization process depends entirely on resources controlled by other firms within these networks. Exposure and access to these resources is gained through the position of the firm in the network. (ibid.)

The network model explains that internationalization occurs through an evolutionary

process where the firm establishes and develops positions in relation to other players in international markets (networks) (Hosseini & Dadfar 2012, 187). This process occurs through the following three stages:

- **Market expansion** through establishing new positions in new international markets.
- **Market penetration** enhancing positions and increasing commitment of resources in those international markets where the firm has positions.
- **Market integration** by improving co-operation between positions in different international markets.

The position of the firm within the market (network) is a key concept in the model and considered to be the driving force behind the internationalization of firms. The position of the firm depends on two factors: The degree of internationalization of the firm, and the degree of internationalization of the market (network). According to these factors, the network model suggests four market position for firms as illustrated in Figure 8. (ibid.)

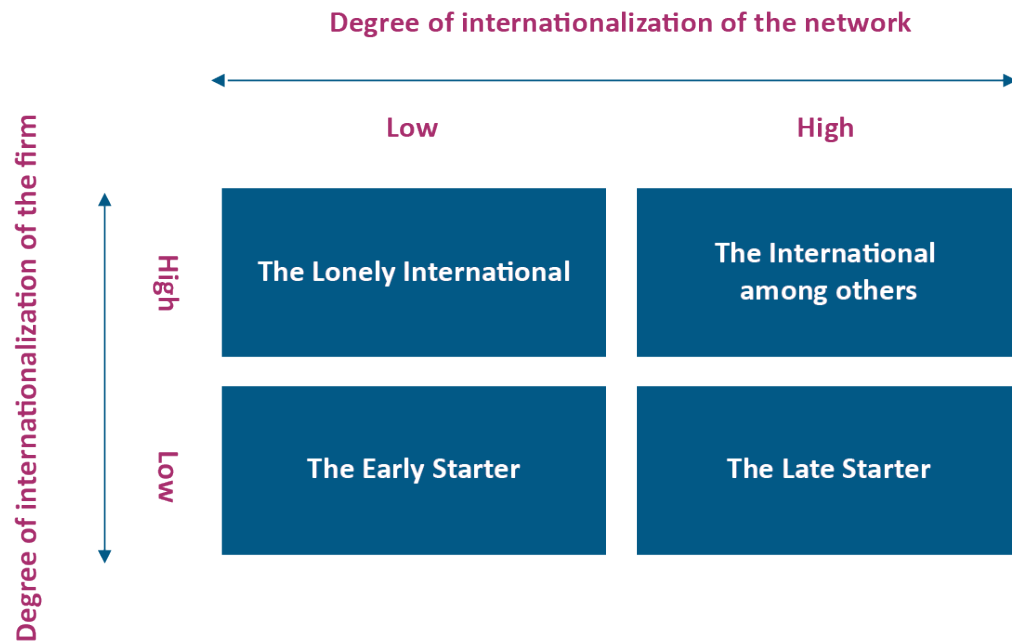


FIGURE 8. The Network Model of Internationalization (Hosseini & Dadfar 2012, 183 edited)

**The early starter** has few and rather insignificant relationships with counterparts in international networks. Moreover, the firm is positioned in a network where its suppliers, competitors and other stakeholders also lack international relationships. Consequently access to information regarding international markets is scarce and difficult to acquire through existing relationships of the firm. (Johanson & Mattson 1988.)

**The lonely international** has extensive international knowledge and experience that can be used for foreign operations. However, the firm's suppliers, competitors, and other stakeholders lack these kinds of assets and therefore are unable to help the firm enter into new international markets. The lonely international enjoys a stronger network position over its competitors through its access into international markets and a wider availability of resources. (ibid.)

**The late starter** is positioned in a network where its suppliers, competitors and other stakeholders have long established international relations but the late starter itself lacks experience and knowledge to engage into international activities. Thus, having

a comparative disadvantage in terms of international market knowledge compared to its competitors. However, these firms do have indirect relations with foreign networks that can be utilized through their own network. (ibid.)

**The international among others** operates in networks where itself and its environment is highly internationalized. Firms in this network have close relationships, which provide external resources and allow them to penetrate new markets through cooperative strategies. (ibid.)

### 3.3.3 The Revised Uppsala Model

In 2009, Johansson and Vahlne revised their Uppsala internationalization model by adding a network prospect. Figure 9 illustrates the structure of their revised model.

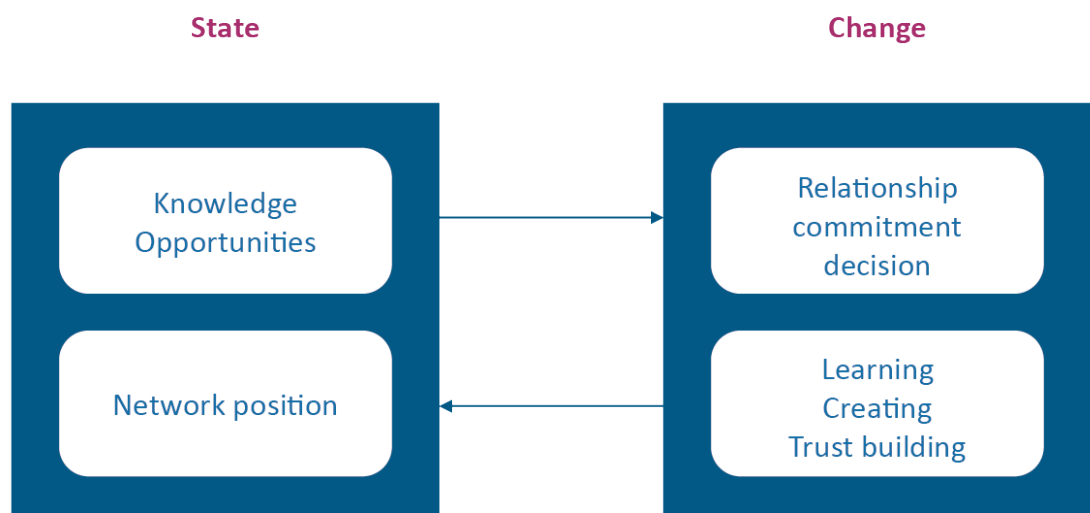


FIGURE 9. The Revised Uppsala Model (Hosseini & Dadfar 2012, 186 edited)

As in their previous 1977 model, the 2009 Uppsala revised model consists out of the same two main parts; *state* and *change* variables. These variables interact as well as

influence each other. (ibid., 187.) In contrast to the previous model, the revised model extends the knowledge concept with recognition of “opportunities” as seen in the upper left box. By adding this new variable, the model intends to point out that opportunities should be considered as the most important element of the “body of knowledge”, which drives the process. The second new state variable appearing in the lower left box is defined as “network position” and replaces the “market commitment” variable in the original model. Network positions relate to the assumption that internationalization process occurs within a network context. (Johanson & Vahlne 2009.)

As to the change variables, the original label of “current activities” has been replaced by “learning, creating, and trust building” in the lower right box, which refers to the current and most important daily activities of “learning, creating knowledge and trust building”. The other changing variable is defined as “relationship commitment” that points out the increasing or decreasing level of commitment of relationships in the network. (ibid.).

The state and change aspects of the revised model represent a dynamic mechanism to explain the internationalization process in a network context. The revised model implies that firms in the international environment try to increase their knowledge about opportunities through their network position. Since internationalization occurs in a network context, gaining success through this process will lead to an improved network position. This is beneficial for firms to acquire valuable market insights. (ibid.)

To conclude, the revised Uppsala model justifies internationalization process of firms from a network perspective, based on the dynamic relationship between state and change variables. State aspects are related to long-term activities, which drives the internationalization process and change variables refer to everyday activities that encourage them. (Hosseini & Dadfar 2012, 187.)



### 3.4 International Market Entry

Once the decision has been made to expand into an international market, firms should evaluate different modes for penetrating into a particular market. There are a variety of modes available for entering into international markets, and no single entry mode applies for all international markets. (See Tradestart 2015, market entry strategies.) This sub-chapter provides an overview of six frequently used market entry modes for penetrating into international markets; including some of their corresponding advantages and disadvantages.

**1. Direct exporting** occurs when a firm sells directly to a buyer in a foreign market by using its own resources. Firms often turn to agents and distributors in the foreign market to represent them after they have gotten more acquainted with the particular foreign market. (Tradestart 2015.) Advantages of direct exporting include access to local market experiences and knowledge. Disadvantages include lesser distribution control and market prices may be influenced by tariffs. (Hollensen 2012, 268.)

**2. Licensing** occurs when a firm gives the rights of products and services to another firm, and is an alternative way to establish production in a foreign market without making vast investments (Tradestart 2015). Advantage of licensing include increase of return on investments of existing developed products, and it could provide access to markets that are otherwise unattractive due to duty and import quotas. Disadvantage include the possibility of the licensor becoming a competitor when the licensing agreement expires, and high costs resulting from negotiations with the licensee and local governments. (Hollensen 2012, 269.)

**3. Franchising** occurs when a firm (franchiser) gives another firm (franchisee) the right to use its business concepts including the use of trade and/or brand marks for an agreed price (Tradestart 2015). Advantages of franchising include, possible rapid growth in distant international markets, and lower costs and risks since the franchisee makes the investments in capital and know-how. Disadvantages include

lesser control over operations, and reputation risks if a franchisee underperforms. (Hollensen 2012, 270.)

**4. Joint ventures** refers to a partnership or strategic alliance between typically two firms, which create another third independent firm (Tradestart 2015). Advantages of joint ventures include economies of scale by utilizing resources, and shared risks. Disadvantages include objectives between partners may differ and therefore may result in conflicts. (Hollensen 2012, 270.)

**5. Sales and/or production subsidiary** relates to a firm establishing a fully owned sales and or production subsidiary in a foreign country. A firm might consider this option in case it believes that its products and or services have a long-term potential in particular foreign market. (Tradestart 2015.) Advantages of a sales subsidiary include quick access to markets, and lower transportation costs. Disadvantages include costs in terms of high initial capital investments needed, and lesser degree of flexibility. (Hollensen 2012, 271.)

**6. Acquisition** occurs when a firm buys a local existing company in a foreign market. A firm might consider this option if the local firm enjoys a substantial market share, is a direct competitor or due to governmental policies. (Tradestart 2015.) Advantages of an acquisition include rapid market entry, and access to local knowledge. Disadvantages include high investment requirements, and communication and coordination issues. (Hollensen 2012, 271.)

**Greenfield investment** occurs when a firm establishes its operations from the ground up in a foreign market. This option might be necessary due to governmental regulations, geographical distance, and the ability to access factor endowments. (Tradestart 2015.) Advantages of Greenfield investments include the possibility to establish operations tailored to the interest of the parent firm and the characteristics of the target market. Disadvantages are that it is one of the most expensive entry modes, and opting for this solution is very time consuming. (Hollensen 2012, 271.)

### 3.5 Barriers to International Market Entry

An important mechanism in the global economy is the entry of firms into new markets. According to traditional economic theories, excess in profitability induces entry into markets. New entrants balance these markets through their equilibrating functions, and therefore restore existing levels of profitability and prices to competitive levels. Moreover, they act as agents of change in existing markets through their innovative activities, which forces existing companies to keep innovating as well. Thus, market entry of firms is regarded as an important element for market dynamics and competition. (Blees, Kemp, Maas & Mosselman 2003, 7.)

However, several impediments can prevent firms from competing into new markets or industries. This means that there can be barriers that make it difficult for firms to enter markets, and therefore cause harm to market dynamics and limit competition. (See OECD Policy Brief 2007, introduction.)

Numerous industrial economists, strategy theorists and marketing scholars have studied the concept of market entry barriers over time. Industrial economist Joe S. Bain, was one of the first who studied the concept of the market entry barriers thoroughly. Bain (1956, 3) defined market entry barriers in his book “Barriers to new competition” as follows:

*A barrier to entry is an advantage of established sellers in an industry over potential entrant sellers, which is reflected in the extent to which established sellers can persistently raise their prices above competitive levels without attracting new firms to enter the industry.*

Later strategy theorist Michael Porter (1980, 33) described market entry barriers as “features of an industry that give incumbents inherent advantages over potential entrants”. Moreover, Porter (2007, 3) highlights in his article “Understanding Industry Structure” the following seven major sources of barriers to market entry in industry competition:

**1. Supply-side - economies of scale** these barriers arise in industries where

incumbents produce in large quantities to reduce production costs per unit, invest in advanced technology to increase production efficiency, or are in a position to negotiate better terms with suppliers due to economies of scale. (ibid.)

**2. Demand-side - benefits of scale** these barriers arise in industries where buyers prefer to buy their products from firms that market products or services, which are being purchased by a vast amount of other buyers. For example, many firms favour Microsoft Windows since other stakeholders with whom they cooperate also opt for this operating system. (ibid.)

**3. Customer switching costs** refers to fixed costs, which arise when buyers change their suppliers. For instance, customer-switching costs might occur when a buyer needs to adapt its current product specifications or existing production procedures when dealing with a new vendor. In other words, high switching costs are barriers created to prevent customers to switch to another competitor and thus making it harder for a new entrant to attract customers. (ibid.)

**4. Capital requirements** relate to substantial financial commitments needed to enter and compete in new markets. Large financial investments might be needed for fixed assets as well as inventory costs. This barrier especially prevents entry in case investments are needed for expenditures that cannot be refunded or resold, such as research and development costs. (ibid.)

**5. Incumbency advantages independent of size** incumbent firms may enjoy competitive advantages over potential new entrants, regardless their size or financial resources. These advantages include patents, access to factor endowments, and governmental funding. (ibid., 3-4.)

**6. Unequal access to distribution channels** new entrants often face challenges to secure distribution channels for their goods and services due to exclusive supply or purchase agreements between suppliers and incumbent firms. This limited availability of distribution channels makes it trickier for new entrants to enter new markets or

industries. (ibid., 4.)

**7. Restricted government policy** governments sometimes create barriers through various policy instruments such as license requirements, local content requirements, intellectual property protection, and government imposed trade barriers (ibid., 4).

Despite most of the aforementioned barriers apply to both domestic and international markets; some barriers differ due to the characteristics of the international market environment (Karakaya & Harcar 1999). Yang, Leone and Alden (1993, 87) categorize entry barriers, in international context, into three groups (see Table 3).

TABLE 3. Overview barriers in international context (Yang et al. 1993, 87 edited)

Internal barriers	Operational Barriers	External Barriers
Past experience in foreign markets	Receiving payments from foreign buyers	Tariff and non-tariff barriers
Lack of managerial commitment	Locating prospect customers	Foreign exchange rate fluctuations
Lack of human & capital resources	Arranging transportation and shipping	Foreign market competition
	Clearing customs	Government policy
	Obtaining representation In foreign markets	Foreign business practices
		Different product and consumer standards in foreign markets

Similarly, marketing scholar Karakaya (1993) points out the following entry barriers in international context that differ from barriers in domestic markets:

*Cultural barriers, language, access to distribution channels, customer switching costs, government policy, product adaptation, stability of currency exchange rate, expected local and global competition, changes required in promotional activities, nationalism, political environment, economic environment, corruption, and cost advantages held by local companies.*

### **3.6 Selected Theoretical Frameworks for the Empirical Study**

An essential part during the early stages of internationalization is to evaluate which foreign markets are attractive for a firm to enter. Choosing the right international market is important for a number of reasons; it may be the key factor whether a firm is able to succeed in a particular international market, as well as it influences the nature of the international marketing strategy and the ability to manage foreign operations in selected countries. (Hollensen 2012, 171.)

This sub-chapter reviews the Pankaj Ghemawat's CAGE Framework and Michael Porter's Five Forces model, which both are tools that can help firms to understand and assess the attractiveness of foreign markets and industries.

#### **3.6.1 The CAGE Framework**

The CAGE distance framework was developed by Pankaj Ghemawat, and presented in the Harvard Business Review article "Distance Still Matters". The CAGE framework provides firms a tool to evaluate the attractiveness of countries in terms of "distance" between them. The CAGE Framework refers to distance in a broad sense by not only focusing on the "geographical distance" between countries but also including the "cultural," "administrative," and "economic differences" between them. (Carpenter & Dunung 2014, 391.)

In his research, Ghemawat (2001, 2) states that firms often overestimate the attractiveness of international markets. The problem is caused by managers who focus too much on sales potential of countries, such as national wealth or spending power, and therefore lose sight over the vast challenges of doing business in new international markets. (ibid, 2.) Most of these underestimated aspects of doing

business internationally result from barriers created by the geographical, cultural, administrative and economic dimensions of distance, which all have a significant impact on the attractiveness of foreign markets (ibid., 3). Moreover, the four dimensions of distance affect industries as well, for example, religious differences influence people's food preferences but do not affect the choice of industrial materials such as cement. (ibid., 1.)

Ghemawat (2001) points out in his article that traditional economic factors such as gross domestic product (later referred as GDP) has far lesser impact on a country's international trade flow, compared to factors related to the four distance dimensions (ibid., 3). For example, Figure 10 shows that an increase of 1% in GDP accounts for an estimated 0.7 to 0.8% increase of international trade, while trading with a country that has the same currency or is a member within the same trade zone increases trade by 340 and 330% respectively.

Distance Attribute	Change in International Trade (%)
income level: GDP per capital (1% increase)	+0.7
economic size: GDP (1% increase)	+0.8
physical distance (1% increase)	-1.1
physical size (1% increase)	-0.2
access to ocean	+50
common border	+80
common language	+200
common regional trading bloc	+330
colony-colonizer relationship	+900
common colonizer	+190
common polity	+300
common currency	+340

FIGURE 10. Measuring the impact of distance (Ghemawat 2001, 4 edited)

The CAGE distance framework along with its four dimensions of distance is illustrated in Figure 11.

	Cultural Distance	Administrative and Political Distance	Geographic Distance	Economic Distance
Distance between two countries increases with ...	<ul style="list-style-type: none"> <li>• Different languages, ethnicities, religions, social norms</li> <li>• Lack of connective ethnic or social networks</li> </ul>	<ul style="list-style-type: none"> <li>• Absence of shared monetary or political association</li> <li>• Political hostilities</li> <li>• Weak legal and financial institutions</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of common boarder waterway access, adequate transportation or communication links</li> <li>• Physical remoteness</li> <li>• Different climates</li> </ul>	<ul style="list-style-type: none"> <li>• Different consumer incomes</li> <li>• Different costs and quality of natural, financial and human resources</li> <li>• Different information or knowledge</li> </ul>
Distance most affects industries or products ...	<ul style="list-style-type: none"> <li>• With high linguistic content (TV)</li> <li>• Related to national identity (foods)</li> <li>• Carrying country-specific quality associations (wines)</li> </ul>	<ul style="list-style-type: none"> <li>• That a foreign government views as staples (electricity), as building national reputations (aerospace), or as vital to national security (telecommunications)</li> </ul>	<ul style="list-style-type: none"> <li>• With low value-to-weight ratio (cement)</li> <li>• That are fragile or perishable (glass, fruit)</li> <li>• In which communications are vital (financial services)</li> </ul>	<ul style="list-style-type: none"> <li>• For which demand varies by income (cars)</li> <li>• In which labor and other cost differences matter (garments)</li> </ul>

FIGURE 11. The CAGE Framework (Ghemawat 2001, 5 edited)

**Cultural distance** refers to differences between countries that determine how people, companies and institutions interact with each other. Cultural differences in language, religion, ethnicity and social values, are all determinants in creating distance between countries, and have a significant impact on trade flows. (Ghemawat 2012, 2.)



**Administrative distance** relates to historical and political links between countries (including former colonial ties), free trade agreements, and current bilateral relationships, which all have a positive impact on trade flows between them. In contrast, differences along these attributes reduce economic exchange. (ibid.)

**Geographic distance** might be the most obvious dimension of distance since an increase of geographical distance between countries reduces trade due to increased transportation costs. However, geographic distance involves more than just physical distance, other attributes of geographical distance include shared borders, the size of a country, time zones, topography, access to ocean ports, and distances to borders. (ibid, 2-3.)

**Economic distance** refers to differences in income and wealth as the most important attributes that creates economic distance between countries, and affects the amount of trade between countries, as well as the type of trading partners (ibid, 3).

To conclude, the CAGE framework states that the more two countries differ across the four dimensions of distance, the riskier the foreign target market. Contrarily, similarities along the dimensions, increases the attractiveness of foreign markets. Thus, evaluating the impacts of all four dimensions increases the likelihood of investing in a profitable foreign market. (Ghemawat 2001.)

### **3.6.2 The Five Forces Model**

Earlier In 1979, Michael Porter developed a framework that can help firms evaluate the attractiveness of particular industries. In his article “How Competitive Forces Shape Strategy”, Michael Porter presents a model that analyses the competitive levels within a industry to gauge the competitiveness of a particular industry, which helps to determine whether its viable to enter an industry. (Porter 1979.) This framework is known as “Porter’s Five Forces Model” and distinguishes five determinants that shape industry competition as illustrated in Figure 12.



FIGURE 12. Porter's Five Forces Model (Porter 2008, 4 edited)

**1. Threat of new entry** refers to the threat that new entrants pose to incumbents in an industry. This is mostly determined by factors related to entry barriers such as supply side economies of scale, demand side benefits of scale, customer switching costs, capital requirements, incumbent advantages, unequal access to distribution channels, and restrictive government policies. (ibid., 3-6.)

**2. Bargaining power of suppliers** the essence of analysing bargaining power of suppliers is to gauge their capability to drive up prices, lowering quality, and reduce product availability. This can be determined by factors such as the amount of

suppliers in the industry, supplier switching costs, and the product uniqueness of suppliers. (ibid., 6-7.)

**3. Bargaining power of suppliers** contrarily to supplier power, buyer bargaining power refers to the capability of buyers to bring prices down, and demand higher quality and better customer service for products or services. This can be determined by factors such as the amount of buyers, buyer switching costs, and the importance of individual customers. (ibid., 7-8.)

**4. Threat of substitution** the essence of analysing this variable is to find out whether customers are able to purchase alternative products that perform the same or offers a similar function as an industry's product. This can be determined by, for example, low switching costs, lower priced substitute products, and the availability of equal or superior quality substitute products. (ibid., 8-9.)

**Competitive rivalry** is shaped by the intensity of competition within an industry. This can be determined by factors such as the amount of competitors, size of competitors and their market share, industry growth, and whether exit barriers restrain firms from leaving an industry. (ibid., 9-10.)

To conclude, Michael Porter's (1979) Five Forces model approaches industry competition in a broad sense by not just analysing direct competition within a industry but also including four other competitive forces; buyer power, supplier power, threat of new entrants, and the threat of substitute products or services. Awareness of these five forces can help a firm to understand the degree of competitive interaction within an industry, which in turn determines an industry's attractiveness. Attractive profitable industries are characterized by weak forces, since they decrease competition. In contrast, unattractive industries are characterized by strong forces, since they increase competition. (ibid.)

### 3.7 Application of Frameworks

Porter's Five Forces framework is especially useful on industry level to gain a deeper understanding of the potential challenges, like entry barriers, which new entrants might face. For this reason, Porter's Five Forces model is employed during the first phase of this study's empirical research to acquire a preliminary understanding of the Canadian shipbuilding industry. Subsequently, Pankaj Ghemawat's CAGE framework is applied during the data collection phase, in order to identify the market entry barriers under to the cultural, administrative, geographic, and economic dimensions of distance.

## 4 RESEARCH METHODOLOGY

Designing a research often starts with considering which research method and data collection techniques are most suitable to conduct a research. However, answers to this type of questions belong somewhere in the centre of the research design process. The phenomenon depicting the underlying factors that stimulate these decisions and guides the research process is known as research philosophy. (Saunders, Lewis & Thornhill 2009, 106.) Research philosophy relates to the development of knowledge and the nature of that knowledge. The research philosophy chosen constitutes key assumptions about how a researcher perceives the world, which in turns supports the choice of research strategy and research method as part of the strategy. Moreover, research philosophy has a significant effect on what we do and how we comprehend the investigated phenomenon. (ibid., 108.)

This study aims to identify *what* are the entry barriers that prevent the Dutch shipbuilding and marine equipment industry from entering the Canadian market in order to find solutions *how* to successfully overcome them. For this reason, this study employs a pragmatic research paradigm since this approach allows the

researcher to focus on the “what” and “how,” and places the research problem as central (Mackenzie & Knipe 2006).

#### 4.1 Research Design

The research design provides a framework that indicates appropriate research methods to solve a research problem, identifies sources and type of data related to the research problem, and describes by which means this data is collected and analysed. Furthermore, it addresses important ethical considerations, as well as possible limitations, which a researcher might encounter during the entire research process. (Saunders et al. 2009, 136-137.) Essentially, the research design creates a foundation to help a researcher conduct a research in a structured and systemic way. (Rajasekar, Philominathan & Chinnathambi 2006, 22).

The research design of this study is illustrated in Figure 13, which shows the choice of research purpose, research methodology, as well as the data collection and analysis methods for this study.

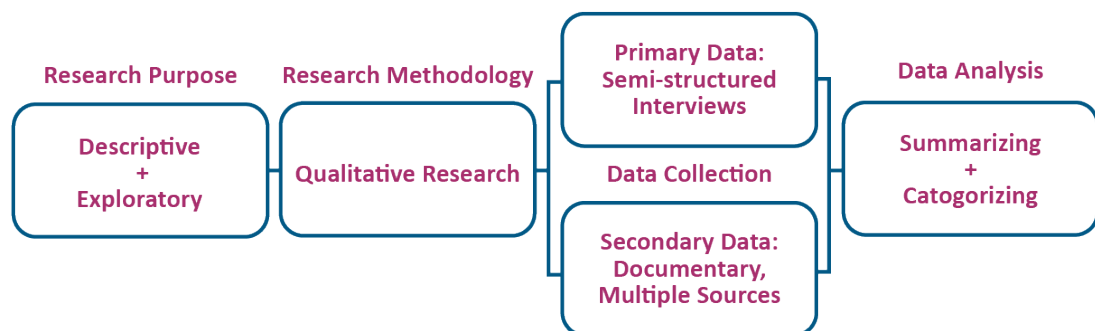


FIGURE 13. Research design of the thesis

## 4.2 Research Purpose and Methodology

Saunders and colleagues (2009, 139) have stated that the purpose of research can be grouped into three categories; exploratory, descriptive, and explanatory research. Exploratory research is useful to find out “what is happening; to seek new insights; to ask questions and to assess phenomena in a new light”, and enables a deeper understanding of the phenomenon under study. Exploratory research is useful, if the precise nature of the problem is not clearly defined. Explanatory research is a good fit to gain a deeper understanding of relationships as it aims to identify and explain relationship between variables. Descriptive research is often used as an extension of exploratory or explanatory research and helps to “portray an accurate profile of persons, events or situations,” and thus enables a preliminary understanding of the phenomenon under study. (ibid., 139-140.)

The primary purpose of this study was to gain a deeper understanding of the entry barriers in the Canadian shipbuilding industry, and to find solutions how to overcome them. Consequently, an investigation of the Canadian shipbuilding industry was needed to form a preliminary understanding of the phenomenon under study. For this reason, a descriptive research, extended by exploratory research was chosen as the most appropriate research purpose for this study.

In addition, Williams (2007, 65) distinguishes three common methodologies for conducting business research; quantitative, qualitative, or a combination of both, known as mixed methods research. Qualitative research can be described as a form of empirical research that primarily uses qualitative data to form an in-depth understanding of research problems involving situations, events or persons. Qualitative data relates to the origins, the values and the features of the phenomenon under study, and does not focus on quantitative features such as amounts, sizes and frequencies. (Reulink & Lindeman 2005, 4.)

Reulink and Lindeman (2005, 3) have stated that the most obvious reason to opt for a qualitative research approach occurs when a research problem is mainly comprised

out of qualitative research questions, and therefore qualitative data is needed to gain a rich understanding to solve the research problem. However, other situations in which qualitative research is recommended include:

- If there is little knowledge available on the research problem, qualitative research can be used for exploration purposes.
- If the area of interest has been often investigated but the results of these investigations and any theories based upon them cannot be directly linked to the phenomenon under study.
- In case the research need is not only focused on gaining a rich understanding of a situation but also intends to improve the situation. (ibid., 4-5.)

In contrast, Williams (2007, 66) explains that quantitative research is frequently used to resolve relational issues of variables in order to establish, confirm, or justify relationships within a research. He describes quantitative research as “the collection of data so that information can be quantified and subjected to statistical treatment in order to support or refute alternate knowledge claims” (ibid.). The collection of data in quantitative research involves various statistical data collection techniques and is mainly concerned with retrieving numerical data for statistical analysis purposes (Joseph 2014).

Borreco, Douglas and Amelink (2009, 54) elaborate further stating that quantitative research is especially useful for deductive approaches; in such way that a theory or hypothesis is used to justify the variables, purpose statement and research questions. The hypothesis and research questions determine how data is collected and analysed in quantitative research (ibid.). Moreover, a quantitative approach is often employed to derive statistical conclusion concerning a population by examining a reliable subset of the population (Lowhorn 2007). This subset comprises the entire group being studied and the size of the subset can vary. However, it must

contain every individual that meets the characteristics of the group under investigation. (ibid.)

A qualitative research methodology was employed for this study, since the research questions of this study are of qualitative nature and qualitative data was needed to form an in-depth understanding of the entry barriers in the Canadian shipbuilding industry, as well as to find solutions how to overcome them. This was best achieved by using qualitative data collection methods such as semi-structured interviews (see sub-chapter 4.3.2). Moreover, the area of interest of this study, “entry barriers”, has been subject to extensive research but it appears that much lesser research has been performed concerning “entry barriers” in international context, and especially in the specific context of the Canadian shipbuilding industry no prior research on entry barriers was found. Hence, qualitative research was used for also its exploratory purposes in order to generate new knowledge and to contribute to existing theory.

In addition, the researcher decided not to opt for a quantitative approach due to the structured nature and closed type of questions associated with quantitative research, which would have failed to provide the researcher essential information like opinions, beliefs and perceptions, needed to gain the desired in-depth understanding of the phenomenon under study.

### **4.3 Data Collection**

Sources for qualitative research include both primary and secondary data. Primary data is new data, which has been collected for the first time and for the purpose of the research. Likewise, secondary data refers to existing data, which has already been collected and often made available in published or electronic forms. (Kynda 2008, 1-2.)

Both primary and secondary data was collected for this study. Figure 14 illustrates the data collation process of this study.



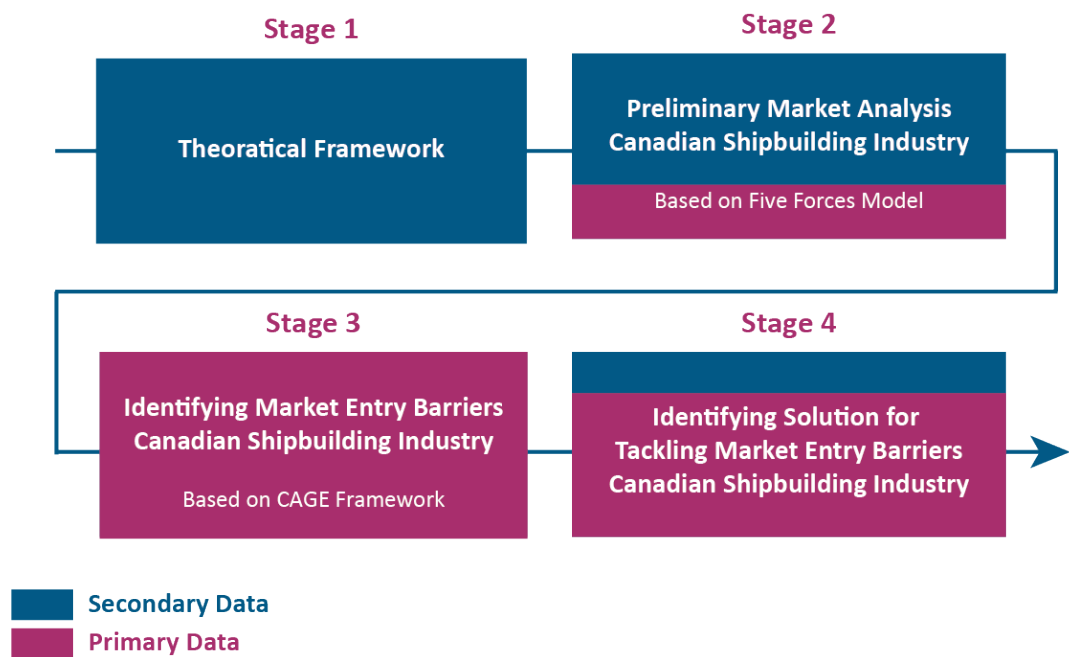


FIGURE 14. Data collection stages of the thesis

#### 4.3.1 Secondary Data

As mentioned earlier, secondary data involves data that has already been collected by other researchers. Wilson (2010, 170) explains that research often starts with analysing secondary data and the outcome of this analysis often predicts whether primary research and primary data is needed. In other words, a researcher might chose to collect primary data, in case the amount of available secondary data is too limited to resolve the research problem (ibid.).

As illustrated in Figure 15, secondary data can be grouped into three categories; documentary data, survey data and data derived from multiple sources.

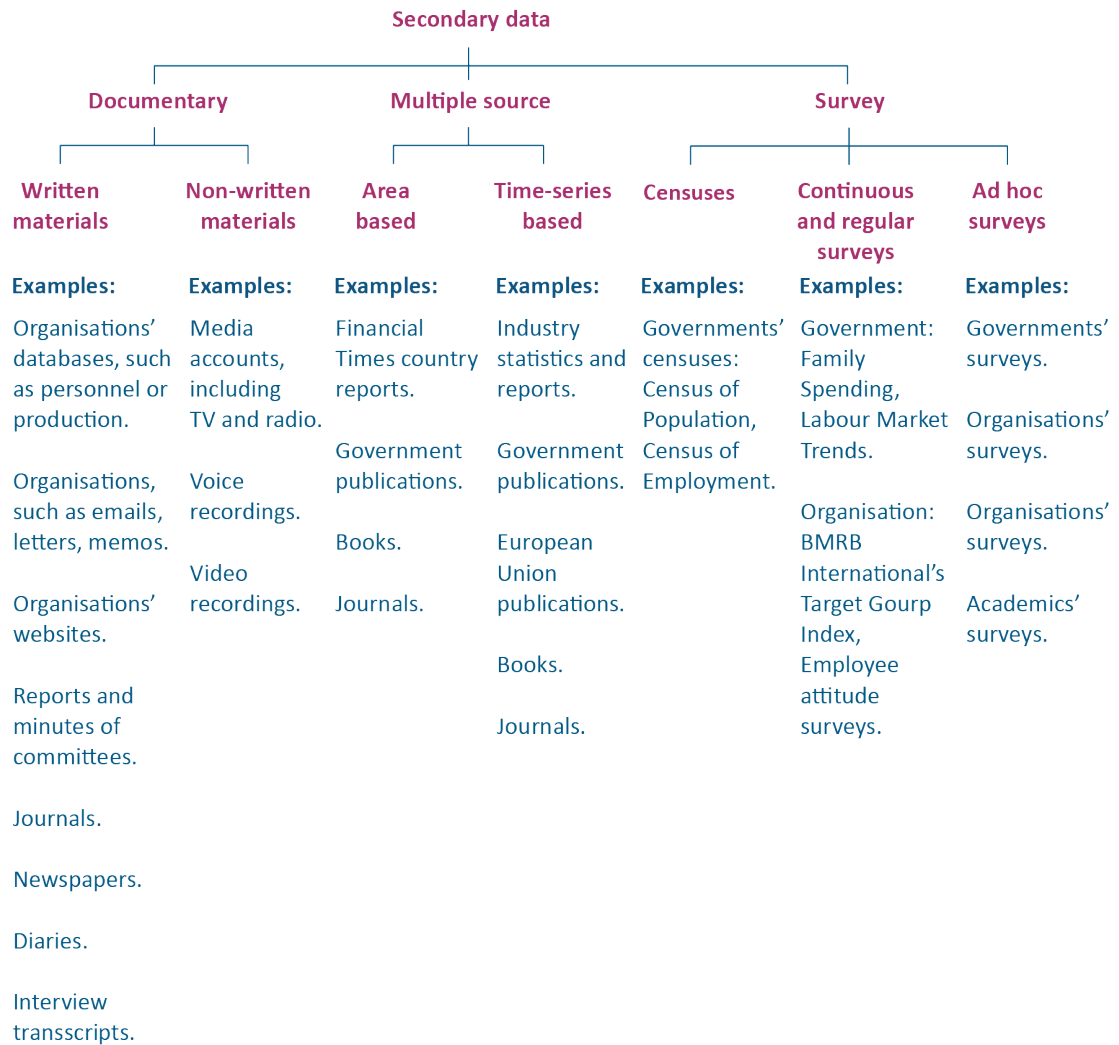


FIGURE 15. Types of secondary data (Saunders et al. 2009, 259 edited)

Documentary data is frequently used together in research with primary data collection techniques and includes, emails, project-reporting material, books, journals, newspapers etc. Multiple source data refers to different data sources that are bundled together to form a new set of data based upon secondary data, survey

data or a combination of both. Examples of multiple source data include country reports, governmental publications and industry statics reports. Finally, survey base data relates to data acquired by survey strategies, which has been analysed for its intended purposes, prior to the researcher accessing this type of data. This type of data is often based on variables like organizations, people, or households, and released in forms such as downloadable raw data files or compiled data sets. (ibid., 259-262.)

For this study, the researcher mainly collected data from multiple sources during the process of secondary data collection. Most of the secondary data collection occurred during stage 1, 2 and 4 of the data collection process (see Figure 14). During stage 1, the theoretical framework of this study was developed, which is entirely based on secondary data sources such as academic books and academic journals. During stage 2, Michael Porter's Five Forces model was applied to acquire a preliminary understanding of the Canadian shipbuilding industry, and subsequently Pankaj Ghemawat's CAGE framework was used to help identify the market entry barriers existing in this industry. Here, the source of secondary data was mainly comprised out industry reports, however, due to the limited available information on Canada's shipbuilding industry; primary data was collected from industry experts to complement the areas where the researcher lacked the necessary information (see sub-chapter 4.3.2). Finally in stage 4, academic literature was used to support the researcher's solutions for tackling the entry barriers in the Canadian shipbuilding industry; however, the leading source of information was primary data collected from industry experts (see sub-chapter 4.3.2).

#### **4.3.2 Primary Data**

Primary data for was collected through conducting interviews with various stakeholders relevant to this study. According to Saunders and colleagues (2009, 318), Kahn and Cannell (1957) describe an interview as "a purposeful discussion of two or more people". In addition, Saunders and colleagues have stated that

interviews can be grouped into three categories; structured interviews (standardized), semi-structured interviews (non-standardized), and un-structured interviews (non-standardized) as illustrated in Figure 16 (ibid., 320).

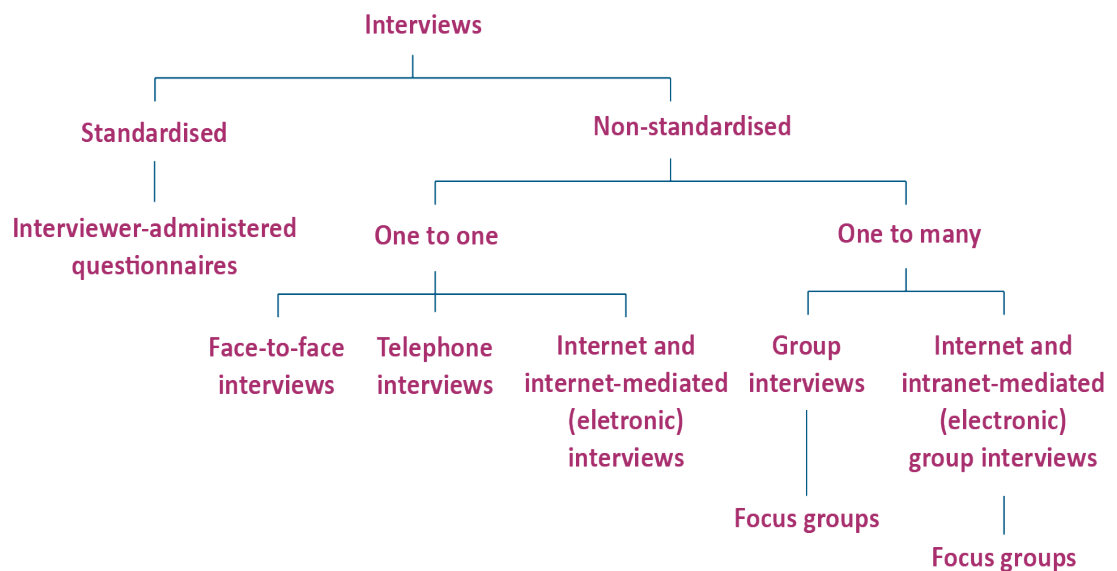


FIGURE 16. Forms of interview (Saunders et al. 2009, 321 edited)

In structured interviews, the researcher asks all respondents the same type of questions. The questions asked are predetermined and frequently only allow a limited set of response categories. In semi-structured interviews, the researcher conducts the interview based on themes and questions, however, he or she might deviate from this whenever her or she feels this is appropriate. This allows the researcher to omit, add or adjust the interview question according to what is learned during the research process. In unstructured interviews, the researcher has a clear idea regarding the objective of the research, which guides the interview and no predetermined questions are used to conduct the interview. (ibid., 320-321.)

A key reason to collect primary data for this study was due to the available secondary data being not sufficient to resolve the research questions of this study. The primary data was collected through conducting semi-structured interviews during stage 2, 3, and 4 of the data collection process (see Figure 14). The semi-structured interview approach was chosen, since it allowed the researcher to adjust the interview questions according to what was learned during each stage of the data collection process. Moreover, the researcher collected primary data from a variety of professional viewpoints, hence the semi-structured interview approach was chosen as it allowed the researcher to add or omit questions according to the expertise of the respondents.

The interview questions (see Appendix 1) were sent to all respondents prior to conducting the interview and the respondents were given the option to participate either via Skype or email. The interview questions were developed based on the findings of theoretical framework of this study. Only open-ended questions were included in the interview to allow the respondents the freedom to express their views on their own terms, and to stimulate them to share their opinions, beliefs, and perceptions. Moreover, the researcher selected respondents from various backgrounds to gain insights from different perspectives on the Canadian shipbuilding industry. Table 4 lists all participants of this study and their corresponding stages to which they contributed for this research.

TABLE 4. List of interview participants

Expertise	Company / Institution	Location	Stage (see figure 14)
Participant Trade Mission NMT 2013	Maritime supplier	the Netherlands	2,3
Participant Trade Mission NMT 2013	Maritime supplier	the Netherlands	2,3
Participant Trade Mission NMT 2013	Maritime supplier	the Netherlands	2,3
Participant Trade Mission NMT 2013	Maritime supplier	the Netherlands	2,3
General Manager	Maritime supplier - Import agent	Canada	2,3,4
Trade Promotion Manager	Branche organisaiton	the Netherlands	4
Government Representative	Government	the Netherlands - Canada	4
Policy Analyst	Government	Canada	4
Senior Advisor	Government	Canada	4

#### 4.4 Data Analysis

The collected primary data for this study can be classified as qualitative data. Qualitative data is non-numeric data, which cannot be quantified, like responses to open-ended interviews and summaries of in-depth interviews. This type of data needs to be carefully analysed in order to be useful. (Saunders et al. 2009, 480.)

Saunders and colleagues (2009, 129) specify that there are two main approaches for analysing qualitative data, a deductive approach and an inductive approach. The key difference is that a deductive approach is aimed at testing an existing theory, whereas an inductive approach seeks to build up a theory. (ibid., 489-490.) This study is descriptive and exploratory of nature and therefore an inductive approach was used for analysing the data.

In addition, the researcher employed summarizing and categorizing processing techniques to analyse the collected data for this study. Summarizing refers to

condensing information in such way that it contains key points emerged from the original information source. Summarizing helps the researcher understand the main topic of interview and how this topic can be further investigated. Categorizing refers to the researcher developing categories and attaching these to the collected data to help the researcher recognize relationships emerging from the collected data. (ibid., 490-492.)

In total 9 interviews were conducted for this study; 7 via Skype and 2 via email. All Skype interviews were recorded with the permission of the respondents and transcribed afterwards. Interviews conducted in Dutch were first transcribed in Dutch, and subsequently translated into English. After the researcher had transcribed the interviews, a summary of key points was developed to help the researcher understand the main themes of the interview and how these could be further exploited during subsequent interview sessions. Moreover, categories (see Appendix 3) were developed according to the theoretical framework of this study and attached to the collected data. In addition, new categories were developed to indicate emerging linkages between the collected data. The categorization of data was essential to help the researcher structure the data and to recognize relationships between the data in order to draw conclusion in support of the research questions. Finally, all transcribed interviews were analysed with the aid of MAXQDA data analysis software.

#### **4.5 Verification of Results**

A good qualitative research must be verified in terms of its trustworthiness, completeness and accuracy in order to ensure the quality of the research (Cohen & Crabtree 2006). Silverman (2010, 274) further emphasizes “Unless you can show your audience the procedures you used to ensure that your methods were reliable and your conclusions valid, there is little point in aiming to conclude a research dissertation”.

Akpınar (2009, 81) lists internal validity, external validity, reliability, and objectivity as

four commonly used criteria to verify qualitative research. Internal validity assess whether the findings of the study are credible and in accordance with the research objectives. External validity evaluates to what extent the presented findings can be generalized or applied to other contexts. Reliability refers to the truthfulness of the findings to evaluate whether these can be replicated or reproduced by another researcher. Objectivity relates to the level of neutrality of the presented findings to evaluate if other researchers can achieve the same outcome, based on the same data. (ibid., 81-83.)

The researcher used triangulation in order to ensure the internal validity of this study. Triangulation refers to using various data sources in a research to develop a deeper understanding (Cohen & Crabtree 2006). Triangulation of sources was applied in such a way that the interview participants were selected from various backgrounds in order to compare different viewpoints of the phenomenon under study. Moreover, triangulation of theory was used through applying Michael Porter's Five Forces model and Pankaj Ghemawat's CAGE framework to help identify the market entry barriers of the Canadian shipbuilding industry from different theoretical perspectives.

To ensure the external validity of this study, the researcher applied a "thick description" approach. According to Cohen and Crabtree (2006), Holloway (1997) defines this concept as "the detailed account of field experiences in which the researcher makes explicit the patterns of cultural and social relationships and puts them in context". In the context of this research a thick description was applied by attempting to describe the theoretical framework and findings of this research with sufficient detail in order to be useful in other contexts.

The issue of reliability can be addressed through reporting a detailed description of the research process since it allows a future researcher to reproduce the work to assess whether similar results could be achieved if necessary (Shenton 2004, 71). Therefore, the researcher carefully outlined the research design and data collection



process in the “Research Methodology” chapter, and evaluated the effectiveness of this process in ‘Limitations’ sub-chapter of this study. Moreover, the researcher carefully evaluated the secondary data sources utilized for this study in terms of authority, quality, currency and relevancy to increase the reliability of this study.

Finally, Shenton (2004) claims that the role of triangulation must again be emphasized as a measure to address objectivity; since it helps to ensure that the research outcome is the result of the experiences and viewpoints of the research participants, rather than the ideas or opinions of the researcher (*ibid.*, 72).

Therefore, industry experts from the buyer and supplier side, as well as the public and private sector were selected to gain different viewpoints, and reduce the effect of investigator bias to the greatest possible extent.

## **5 RESEARCH CONTEXT**

In this chapter the research context of this study is presented. This chapter starts with a general country overview of Canada and continues with an industry review of Canada’s shipbuilding industry by describing the industry’s background, economic performance, and Canada’s National Shipbuilding Procurement Strategy. Finally, this chapter ends with an overview of current policies that are affecting the industry.

### **5.1 Canada**

Canada is the second largest country in the world in terms of geographical size, and the country is surrounded by three oceans; the Atlantic Ocean on the East, the Pacific Ocean on the West, and the Arctic Ocean in the North. Furthermore, the country uses six time zones including Newfoundland Time Zone (UTC -3.5), Atlantic Time Zone (UTC -4), Eastern Time Zone (UTC -5), Central Time Zone (UTC -6), Mountain Time Zone (UTC -7), Pacific Time Zone (UTC -8). Moreover, Canada has ten provinces; Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Prince Edward Island, Quebec, and Saskatchewan, and three

territories; Northwest Territories, Nunavut, and Yukon. (Canada – A country Overview 2015.)

The key difference between the Canadian provinces and territories is that the federal government has more power over the territories, while the provincial governments retain substantial more competences and rights. The provincial governments enjoy these existence powers since they emerged out of former British colonies.

(Government of Canada 2010.)

Moreover, Canada is a federation governed by a parliamentary democracy system, and the United Kingdom monarch is Canada's head of state. The country has a population of approximately 35 million people, and uses two official languages; English and French. French is primarily spoken in the province of Quebec.

Furthermore, the vast majority of the Canadian population can be found within a 200km radius of the U.S border. The relationship with the U.S. is key for Canada, as both countries are each other's largest trading partners. (See BBC 2015, country profile Canada.)

## **5.2 Canadian Shipbuilding Overview**

The Canadian shipbuilding industry is mainly comprised of firms involved in shipbuilding operations such as shipyards, ship repair yards, conversion yards, professional services providers and marine equipment suppliers (Industry Canada 2011). The industry counts about 30 shipyards, which are mainly located in the Atlantic Provinces, Quebec, Ontario and British Columbia. The primary activities of these shipyards are manufacturing and maintenance of vessels, conversation and alteration, building prefabricated vessels and barges, and the production of offshore oil and gas platforms. (Seaspan Shipyards 2011, 6.). There is a high concentration of firms active within the industry, however the Canadian shipbuilding industry is dominated by just a few key players. Figure 17 features some of these key players and their location in Canada. (ibid., 7.)



FIGURE 17. Overview of Canadian shipyards (Seaspan Shipyards 2011, 7 edited)

### 5.2.1 Industry Background

The Canadian shipbuilding industry is among the oldest industries in Canada, with its origins dating back to 18<sup>th</sup> century. Since World War II most Canadian naval vessels have been built on Canadian soil. During the years of naval programs, the industry has been quite competitive, by manufacturing vessels like icebreakers and oil platforms. At the time, Canadian shipyards, like any other shipyards, frequently received government sponsorships in terms of subsidies, which partly contributed to its success. (Seaspan Shipyards 2011, 6.)

This changed during the 1980s, when the Canadian government reformed the industry, and downscaled its shipbuilding capacity by approximately 40 %. Moreover,

the federal government subsidies were scrapped ahead of an expected agreement administered by the Organization for Economic Cooperation and Development (later referred to as OECD) to remove government sponsorships on a global scale.

Consequently, the Canadian government passed a three-pronged bill to protect the industry from foreign competition. This bill was designed to provide accelerated capital cost allowances for Canadian shipyards that constructed their ships on Canadian soil. Moreover, imported ships were subjected to a 25% tariff, and federal government fleets were to be constructed, converted, refitted, and repaired in Canada. (ibid.)

Eventually, the OECD's plan to remove government run sponsorships on a global scale was never backed which led the Canadian shipyards to compete in a highly subsidized global shipbuilding industry. The signing of the North America Free Trade Agreement (NAFTA), in 1994, even worsened the challenges faced by the Canadian shipbuilding industry since the agreement did not address the Jones Act that protected the U.S maritime industry from foreign competition. As a result, the U.S. market remained closed to the Canadian shipbuilding industry. Throughout the 1990s, the Canadian shipbuilding industry faced declining demand and fluctuating productivity due to the completion of large scaled projects, governmental cutbacks, market conditions and governmental trade restrictions imposed by other competitive countries. (ibid.)

During the early 2000s, the Canadian governments initiated several countermeasures to seek opportunities for the Canadian shipbuilding industry to become more self-sustaining and competitive, stimulate innovation, advance efficiency, and to propose further developments of existing government run programs. Unfortunately, most of these initiatives failed to enhance the competitive position of the Canadian shipbuilding industry during the 2000s. (ibid.)

### **5.2.2 Industry Performance**

The majority of industrial industries experienced substantial declines during the

economic down turn, which started in 2007. However, the Canadian shipbuilding industry was able to weather the storm with only minor contractions in revenue. Between 2009 and 2014, the industry leveraged on a stable amount of demand generated by the federal government and defence clients, and the inherent long lead times between ordering and delivering finished ships. In addition, demand increased stemming from demand of ocean and ocean and coastal transportation firms that needed ships for operations. In the five years to 2014, it was estimated that industry revenue declined slightly at an average rate of 0.3% to 823.7 million Canadian Dollar (later referred as CAD). In 2014, the industry revenue was expected to increase by 4.8%. (Crompton 2014, 4.)

The primary reason why the industry did not experience substantial declines of revenue in 2009 but instead in 2010 and 2011 is due to the time lags in the industry. In 2009, the industry still leveraged on orders received prior to the recession. However, in 2010 and 2011, the industry's order book declined in terms of new ship orders because of lower demand for commercial transportation as consumer spending contracted severely during the recession. This decline in demand pushed the industry's revenue down by 20.2% in 2010 and 1.6% in 2011. (ibid.)

However in 2010, the Canadian government launched the National Shipbuilding Procurements Strategy (see sub-chapter 5.2.3). This procurement program, which spans over 20 – 30 years, will drive long-term industry growth by generating substantial demand for combat and non-combat shipbuilding projects within the industry. Consequently, in 2014, industry revenue was projected to grow at an average annual rate of 2.3% to \$922.7 million CAD in the five years to 2019. (ibid.).

A detailed overview of the industry's key performance statistics can be found in Appendix 4 of this study.

### **5.2.3 National Shipbuilding Procurement Strategy**

In 2010, the Canadian government launched the National Shipbuilding Procurement

Strategy (NSPS) in order to revitalize the industry by renewing the Royal Canadian Navy and Canadian Coast Guard fleets (Byers & Webb 2013, 5). The NSPS is Canada's largest procurement program in history, valued at 33 billion CAD, and is comprised out of two programs; one for combat vessels, and the other one for non-combat vessels. The Canadian federal government allocated each program to one Canadian shipyard and eventually three Canadian shipyards; Seaspan Vancouver Shipyards in British Columbia, Irving Shipbuilding Inc. in Nova Scotia, and Davie Shipbuilding in Quebec ended up in the bidding process. (ibid., 10.)

In 2011, Irving Shipbuilding won the combat package, valued at 25 billion CAD, which involved the construction of 6-8 Artic/Offshore Patrol vessels, and 15 Canadian Surface Combatants vessels for the Royal Canadian Navy. Seaspan Shipyards was granted the non-combat package, valued at 8 billion CAD, which involved the construction of 2-3 Joint Support Ships for the Royal Canadian Navy, one polar icebreaker, one offshore oceanographic vessel, and three offshore fisheries science vessels for the Canadian Coast Guard. (Gereffi, Brun, Stokes & Guinn 2013, 16.)

Figure 18 provides an overview of the initial vessels procured under the Canadian NSPS.

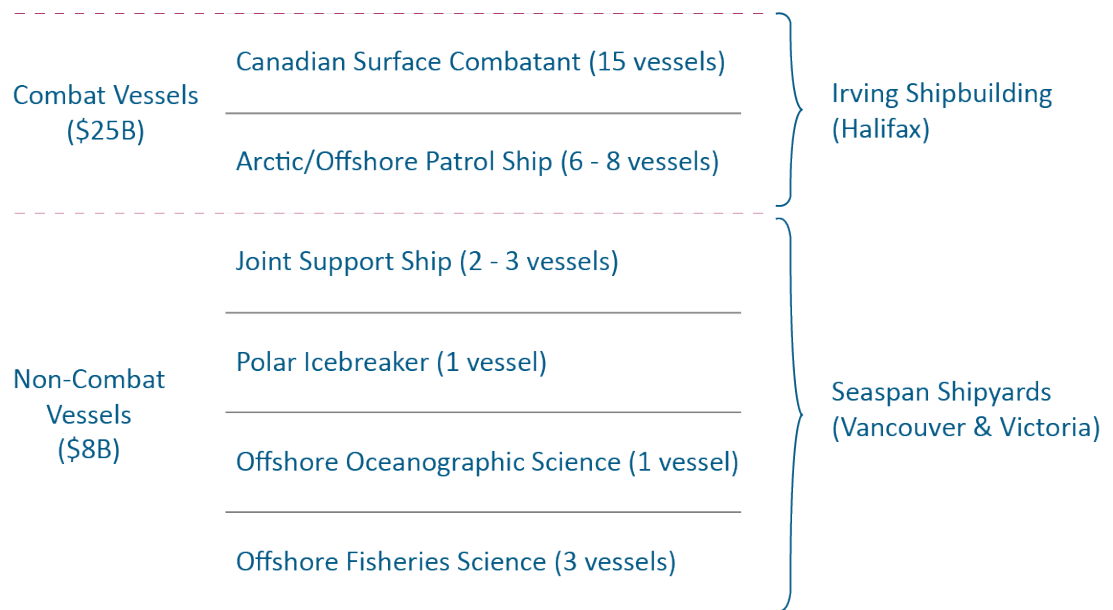


FIGURE 18. Initial procured vessels under NSPS (Gereffi et al. 2013, 16 edited)

In addition, the Canadian Government extended the non-combat package for Seaspan Shipyards in 2013 with five Medium Endurance Multi-Tasked Vessels and up to five Offshore Patrol Vessels, amounting to an additional \$3.3 billion CAD to the Seaspan contract. (Byers & Webb 2013, 11.)

#### 5.2.4 Policies affecting the Industry

The most important policy protecting the NSPS from foreign competition is the Canadian Shipbuilding Policy PWGSC, 2012b. This policy states that the “Canadian government will continue to procure, repair and refit vessels in Canada subject to operational requirement and the continued existence of a competitive marketplace.” (Gereffi et al. 2013, 40.) Furthermore, there are three additional policies that underpin the NSPS:

##### 1. The Value Proposition Policy

This policy requires all shipyards to invest 0.5 % of the value of any contract price

paid for all resultant NSPS contracts to the advancement of the Canadian shipbuilding industry over the long-term. Development areas within the industry include; human capital development, technology investment, and industrial development activities. (ibid.)

## **2. The Industrial and Regional Benefits Policy**

All firms that are granted major defence procurement contracts by the Canadian federal government are obliged to meet the requirements of the Industrial Regional Benefits (later referred as IRB) policy. The IRB policy stipulates firms “to undertake business activities in Canada valued at 100% of the value of the defence or security contract they have been awarded by the Government of Canada.” (ibid.)

The aim of the IRB policy is to strengthen the Canadian economy by giving Canadian companies the opportunity to develop and competitively sell innovative products and services to companies with IRB obligations. The overseeing agency in charge of the IRB fulfilments is Industry Canada. Companies can fulfil their IRB requirements through either direct transactions, which relates to products or services being procured by the Canadian government, or through indirect transaction, which are not directly linked to the products or services being procured, but linked to investments, technology cooperation, and product mandates. (ibid., 40-41.)

## **3. The Industrial and Technological Benefits Policy**

In February 2014, the Canadian Federal government launched the defence procurement strategy (DPS), which transformed the aforementioned IRB policy into the Industrial Technological Benefits (later referred as ITB) policy. The primary objective of this new procurement strategy is to enhance the existing defence procurement process and to better leverage on defence procurements in terms of creating jobs and economic growth for Canada. (See Industry Canada 2014a, ITB Policy: Value Proposition Guide.)

The ITB policy features the same reinvestment obligation as stipulated in the IRB



policy; however, the new policy is a significantly more powerful measure because it includes a value proposition element, which incents potential bidders to compete on the basis of economic benefits for Canada. In particular, whereas the IRB policy, assessed bidders for major coastguard and defence procurements on the basis of price and technological merit, under the new ITB policy, the Canadian governments will also assess the value proposition. In other words, economic benefits will factor into determining, which potential bidder wins the government procurement contracts. However, procurement contracted prior to the February 2014, will still fall under the previous IRB policy. (ibid.)

Nevertheless both the IRB and ITB policy are key considerations for international firms as they must out weight the benefits of utilizing their existing supply chain channels against the requirements to fulfil the IRB or ITB obligations.

## **6 RESULTS**

In this chapter the research results of this study are presented. This chapter begins with a preliminary market analysis of the Canadian shipbuilding industry based on Michael Porter's Five Forces model. Subsequently, the experienced market entry barriers in this industry are identified and described with the aid of Pankaj Ghemawat's CAGE Framework. Finally, feasible solutions for tackling each primary identified entry barrier are outlined in the last part of this chapter.

### **6.1 The Five Forces Analysis**

To acquire a preliminary understanding of the Canadian shipbuilding industry, and to gain a deeper insight into the market entry barriers existing in this industry, the researcher applied Michaela Porter's Five Forces model.

The researcher collected primary and secondary data to analyse the industry according to this model. Only secondary data was used to analyse "competitive rivalry," "barriers to entry," and "threat of substitute products" within the industry.

In addition, a combination of secondary data and primary data gained from interviewing three of the six maritime suppliers who participated in the trade mission in 2013, and a Canadian-based agent representing various Dutch maritime firms in the Canadian market formed the basis of the researcher's analysis of the "bargaining power of suppliers" and the "bargaining power of buyers" within the industry.

The final results of the developed Five Forces analysis are illustrated in Figure 19 and a discussion of findings is further outlined within this sub-chapter.

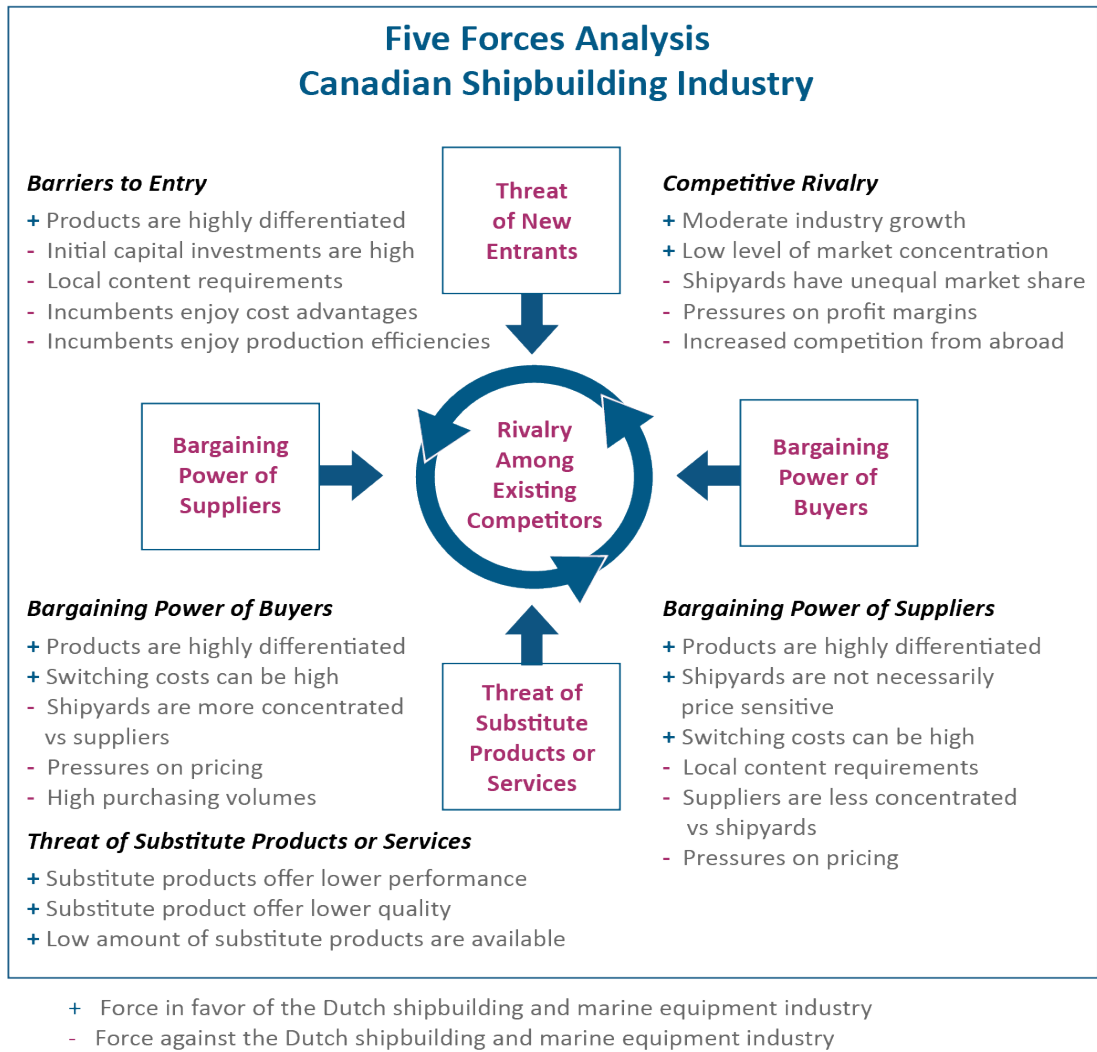


FIGURE 19. Five Forces analysis of the Canadian Shipbuilding Industry

### 6.1.1 Competitive Rivalry

The level of competitive rivalry in the Canadian shipbuilding industry is estimated to be moderate-to-high. The vast majority of the industry's revenue is generated by long-term contracts and public tenders wherefore firms within the industry compete. Size and production capacity are important determinants for shipyards to compete for large-scale shipbuilding contract since they provide a competitive edge in terms of lower costs per unit and the capability to offer more efficient service at a better

price point. For this reason, large-sized Canadian firms are usually able to construct large-scale ships for the Royal Canadian Navy and the Canadian Coast Guard, as well as commercial clients such as ocean shipping firms. Smaller Canadian shipyards often deliver small-to medium sized ships or act as subcontractors for larger shipyards. Moreover, the competitiveness of firms operating in the Canadian shipbuilding industry is also determined by their technical merit, reliability of products and services, reputation for integrating complex systems, and their ability to respond to changing customer needs due to the on-going developments in design and production techniques within the shipbuilding industry. (Crompton 2014, 21.)

In 2014, a low level of market concentration was measured in the Canadian shipbuilding industry. 140 enterprises were estimated to be active including a large number of SMEs; yet some major players enjoy a substantial market shares within the industry. These major players are; Irving Shipbuilding (12.8%), Seaspan Marine Corporation (4.6%), and Davie Shipbuilding (4.0%) whom amounted for 21.4 % of total market share in 2014. (ibid., 19.)

Moreover, the revenue of the Canadian shipbuilding is projected to grow at an average annual rate of 2.3% to \$922.7 million CAD for the upcoming years to 2019. This is achieved primarily due to Canada's NSPS, which spans over 20-30 years and provides the entire industry with opportunities. (ibid., 1.) However, profit margins remain pressured due to an increase of competition and fluctuating prices of commodity goods such as steel. As a result, enterprise growth is expected to decline at a yearly rate of 0.7% to 135 enterprises in 2019. (ibid., 7-8.)

In addition to domestic competition, the industry also has to deal with a substantial amount of competition from abroad. The industry faces competition primarily from the U.S. and Asian competitors, who offer more competitive prices, are more efficient or enjoy better industry ratings. However, shipyards usually avoid direct competition with foreign shipyards due to significant transportation costs, especially for large-scale vessel construction. (Ibid., 21.) In 2014, the largest source of imports

came from the U.S., China, and Turkey. Moreover, imports for the industry are projected to grow at an annual rate of 4.3% to \$779.1 million CAD in 2019. (ibid., 8.)

### **6.1.2 Threat of New Entrants**

Threat of new entrants in the Canadian shipbuilding industry is estimated to be low primarily due to significant high entry barriers such as the capital-intensive nature of the industry, governmental policies, and the level of competition within the industry.

Firms aiming to enter the industry have to deal with incumbent firms that often enjoy long-established relationships within the Canadian shipbuilding supply chains, and leverage on superior production efficiencies which gives them a competitive edge. Additionally, the competitive nature of the Canadian shipbuilding industry demands substantial R&D expenditures and a highly skilled workforce. Therefore, new entrants are required to invest in R&D to keep up with the industry. In addition, shipbuilders need immense capital requirements to manage a shipyard and build new vessels. Likewise, incumbent firms enjoy cost advantages as new entrants may encounter high initial capital investments such as purchasing manufacturing equipment and land. Furthermore, products and services in the shipbuilding value chain are highly diversified, however firms differentiate themselves by offering products and services within specific niche areas, geographic location, shipyard size, and dry dock capacity; all of which are factors that require large financial commitments and thus may discourage entry as well. Finally, the decision of the Canadian government to eliminate a 25% tariff on all imported vessels is expected to increase foreign competition. (Crompton 2014, 22, 29.) However, current governmental policies in favour of stimulating the Canadian economy, like the IRB and ITB policy (see sub-chapter 5.2.4) may deter foreign firms as it incents firms to give up existing supply chain channels and invest in the Canadian economy.

To sum up, factors like high capital requirements, the high degree of product differentiation, increasing level of completion and Canadian governmental policies

are all shaping an industry where incumbents enjoy significant competitive advantages over potential new entrants.

### **6.1.3 Threat of Substitute Products**

Ships are frequently used for transportation purposes, and therefore the industry has to deal with competition from other industries that facilitate in transportation like air, rail and road related industries. For this reason, the Canadian shipbuilding industry faces competition from automobile and light commercial vehicle manufacturers, airplane manufacturers and railroad solutions. Cruise ships for example, compete with other travel providers and destinations in the leisure market such as bus and train providers. Moreover, airplanes are considered to be alternatives for ships when it comes to long-distance international transportation. However, planes are only capable to transport a relatively small amount of goods compared to ships and air travel is often more costly than water transportation. Finally, Canadian ships are often built for highly specified purposes, like protecting Canada's sovereignty in the arctic region, which limits direct competition from other related industries as well. (Crompton 2014, 21-22.)

### **6.1.4 Bargaining Power of Buyers**

Bargaining power of buyers in the Canadian shipbuilding industry is estimated to be high primarily due to high purchasing volumes, substantial market share of certain Canadian shipyards and low profit margins.

Demand within the industry is primarily determined by the Canadian government, which requires ships for combat and non-combat purposes and through demand of ocean and coastal transportation firms that require ships for commercial shipping activities (Crompton 2014, 6). These two type of buyers usually have huge spending power and strong bargaining leverage due to the vast amounts of volume being purchased (ibid., 8).

In addition, there are a quite a few shipyards active in the Canadian shipbuilding

industry including; Allied Shipbuilders, Kiewit Offshore Services, Washington Marine Group, the Nanaimo Shipyard Group, Glovertown Shipyards Limited and Ocean Group Inc . (ibid., 8). Yet three players; Irving shipbuilding, Seaspan Marine Corporation, and Davie shipbuilding dominate the industry. These three players enjoy substantial market shares because they have been awarded with the NSPS contract, which gives them a very strong bargaining position over suppliers. Moreover, profit margins in the Canadian ship building industry are relatively low as estimated in 2014 at 2.7%. (ibid., 19.).

Consequently, shipyards have to deal with greater incentives to reduce their purchasing costs. One should note, however, that products purchased by shipyards such as raw materials, high tech equipment and safety equipment are often highly differentiated as shipbuilding products are frequently made to order, which in turn provides bargaining leverage for maritime suppliers. The high degree of product differentiation also affects switching costs for shipyards, which limits the bargaining power of Canadian shipyards to some extent as well.

#### **6.1.5 Bargaining Power of Suppliers**

Bargaining power of Dutch maritime suppliers aiming to enter the Canadian shipbuilding industry is estimated to be limited mainly due to increased competition, low profit margins, and the IRB and ITB policy.

As Shipyards compete for long-term contracts, they tend to often lower their prices to secure the contract and to establish a long-term relationship with a client, which results in lower profit margins for the shipyard (Crompton 2014, 19). Furthermore, competition has increased significantly within the Canadian shipbuilding industry, which has resulted in considerable pressures on pricing and profit margins (ibid., 7).

Consequently shipyards have become more price-sensitive as they face greater incentives to reduce purchasing costs, which in turn weakens the bargaining position of suppliers. Likewise, Canadian shipyards that have been awarded the NSPS contract

exert great pressures on suppliers by flowing down their IRB and ITB obligations to lower tier suppliers. This gives Canadian suppliers a strong competitive edge over foreign suppliers, as products and services from abroad become significantly more expensive. However, Canadian shipyards are not necessarily price sensitive or bound by budgets, other factors like; reputation, reliability, financial stability and technical merit are also key considerations within the industry. Moreover, products purchased by shipyards frequently require customization as ships are often built to individual requirements. Therefore, highly differentiated products are very common in the shipbuilding industry, which also provides leverage in terms of bargaining power for suppliers.

## **6.2 The CAGE Analysis**

To identify market entry barriers in the Canadian shipbuilding industry, the researcher interviewed three of the six Dutch maritime suppliers who participated in the trade mission in 2013, as well as a Canadian-based agent representing various Dutch maritime firms in the Canadian market.

Subsequently, the researcher analysed the data and applied the CAGE framework. The intended purpose of this framework is to measure distances between countries according to the framework's cultural, administrative, geographical, and economic dimensions of distance. However, as this study primarily concerns market entry barriers, the researcher modified the framework in such a way that the interview questions were developed and structured according to the framework's four dimensions in order to develop a guide map that allowed for the identification and categorization of entry barriers in the Canadian shipbuilding industry.

A discussion of all identified market entry barriers is further outlined in this sub-chapter.



### 6.2.1 Cultural Barriers

All respondents were asked to comment on cultural related barriers in the Canadian shipbuilding industry. Respondents identified *adapting to the Canadian business culture* as a primary entry barrier, and mentioned *proficiency in the French language* as an advantage for doing business in Canada. One should note, however, that these barriers are better described as cultural differences rather than cultural barriers.

The majority of the respondents (75 percent) described the business culture in the Canadian shipbuilding industry as conservative, modest, and risk-averse. In describing it as conservative, respondents meant that the Canadian shipbuilding industry is viewed as autocratic. The industry dictates strict rules and regulations, which are respected accordingly, and foreign suppliers are expected to fully comply or be excluded. Furthermore, “Dutch directness” should be avoided, as the Canadian way of communicating indicates strong tendencies toward “British indirectness.” In addition, one respondent described a Canadian saying, “You wouldn't...make a decision even if your life [depended] on it,” which clearly depicts the country’s culture of modesty and risk aversion. The industry is viewed as very reluctant to take initiative to prevent mistakes, as well as to take responsibility, which contributes to the industry’s long product adaption and market penetration times.

Finally, respondents mentioned proficiency in French is an asset since French is one of Canada’s two official languages, and spoken primarily in the Province of Quebec which has a high concentration of maritime firms.

### 6.2.2 Administrative Barriers

Next, all the respondents were asked to comment on administrative-related barriers in the Canadian shipbuilding industry. They identified *local content requirements* (the IRB and ITB policy) and *lack of clear information* regarding these policies as major barriers to market entry. In addition, *bureaucratic practices* within the industry and

*disparities between the adoption of the metric and the imperial measurement systems* were also viewed as problematic determinants to market entry.

All the respondents indicated that Canada's IRB and ITB policy is making it extremely difficult for Dutch maritime firms (especially SMEs) to enter the Canadian shipbuilding industry. In describing it as extremely difficult, they meant that a) there are many aspects of this policy which are not well understood by the industry, and to tackle this problem, external consultants need to be hired, which translates to significant costs prior to having anything sold in Canada; b) substantial capital requirements are needed to achieve high levels of Canadian content, which c) provides Canadian firms a competitive edge over foreign suppliers; and d) Dutch firms that don't have the necessary capital requirements are forced to give up existing supply chain channels and establish partnerships within Canada, which increases exposure to confidential intellectual property (later referred as IP) and may create competition that was non-existent before.

Moreover, strong opinions were voiced about how Canada's local content requirements are significantly and unnecessarily driving up prices of supplies from abroad, thus hampering innovation within the Canadian shipbuilding industry. One respondent provided the following the example:

*...in the end, it means that Canadian content could be 50 percent, consisting out of overhead, profit, and additional expenses. It also indicates that the price has doubled, which means that you can't build eight ships anymore, but you just have enough money to build four. It doesn't make sense at all...*

Another administrative barrier can be found in the remarkable double-standard adoption of the metric and the imperial measurement systems in the Canadian shipbuilding industry. Irving Shipbuilding is building the 6-8 Artic/Offshore Patrol vessels partly metric and partly imperial, which has never been done before, and Seaspan's Vancouver Shipyards is building their vessels entirely according to the

imperial standards, despite the country officially converting to the metric system during the 1970s.

Finally, bureaucratic practices involving vast amounts of paperwork and multi-layered and needlessly time-consuming procedures within the industry were also regarded as problem determinants.

### **6.2.3 Geographical Barriers**

Third, all the respondents were asked to comment on geographic-related barriers in the Canadian shipbuilding industry. They identified *vast geographical distances and time zone differences as barriers within the industry*.

All the respondents indicated that Canada's large geographical size is affecting their capabilities of doing business in Canada one way or another. Canada is the second largest country in the world and the vast majority of the marine industry establishments can be found in the Eastern and Western parts of Canada. The distance from East to West spans over 5,000 kilometers, and it takes about 7 hours to fly across the country, which makes domestic travelling expensive. Reaching the East Coast (Quebec and Nova Scotia) transportation-wise is relatively easy; however, reaching the West Coast (British Columbia) is more challenging since either ocean freight has to cross the Panama Canal or shipments need to be sent to Montreal first and then transported farther by air, rail, or road transportation. Moreover, transportation costs from Europe to Canada are sometimes unpredictable.

Finally, differences in time zones were pointed out as a challenge. Canada has six different time zones. The time difference between the Netherlands and Halifax is 5 hours, and 9 hours between the Netherlands and Vancouver. This means that when Vancouver starts working, Europe is closing, which makes real-time communication especially difficult with the West Coast.

#### 6.2.4 Economic Barriers

Finally, all respondents were asked to comment on economic barriers in the Canadian shipbuilding industry. Respondents identified *significant capital requirements* as the primary economic barrier to market entry. Furthermore, *worldwide competition* and *currency fluctuations* were also viewed as challenges in the industry.

The majority of respondents (75 percent) indicated that significant capital is required to compete effectively within the Canadian shipbuilding industry. In pointing out significant capital requirements, respondents meant that a) to solve the aforementioned information gaps concerning the IRB and ITB policy, external consultants need to be hired, resulting in significant costs prior to the receipt of any orders, and b) to achieve the highest levels of Canadian content and a strong foothold in the industry, Dutch maritime firms are forced either to establish a wholly owned subsidiary or to create a joint venture, both of which require vast financial resources. One should note that several international firms, like Thales Group and Royal Imtech N.V., have established a presence in the Canadian shipbuilding industry by opting for these types of market entry modes. However, for the vast majority of Dutch SMEs, these entry modes remain far out of reach because of their capital-intensive nature.

Furthermore, the industry is facing competition from other international markets, like that of the U.S., in which large and competitive suppliers are based. In addition, the Canadian government eliminated a 25 percent tariff on all imported vessels in 2010, which has led to contracts (outside of the NSPS program) being awarded to Chinese, Turkish, Dutch, German, Polish and other shipyards.

Finally, over the past twelve months, the value of the Canadian dollar has increased by approximately 15 percent relative to that of the euro (see Bank of Canada 2015, exchange rates). Despite the fact that the appreciation of the Canadian dollar against the euro will most likely positively affect exports from the Netherlands, it will also

make it even more challenging for Dutch firms to fulfil Canadian local content requirements through investing in the Canadian economy.

### **6.3 Tackling Entry Barriers**

To seek for solutions how to overcome the identified primary market entry barriers, the researcher interviewed five industry experts from both the private and public sector. Subsequently, the researcher analysed the data and proposed feasible solutions under each entry barrier, which are further described in this sub-chapter.

#### **6.3.1 Canadian Business Culture**

Tackling this entry barrier is challenging, primarily due to the inherent resistance of culture to change and varies according to the mode of entry chosen to enter the Canadian shipbuilding industry. Dutch maritime firms which intend to enter the industry by themselves through e.g. direct-exporting or establishing a wholly owned subsidiary are advised to invest in long-term relationships and to integrate within the Canadian business culture as much as possible. It is important to gain trust and establish long-lasting relationship as Canadians value long-term partnerships and not “just a flash in the pan”. This can be achieved by demonstrating genuine interests through e.g. regularly visiting Canada to maintain relationships and by participating in industry days, conferences and exhibitions like Canada’s annual marine exhibition and conference, Mari-Tech, which provides excellent networking opportunities. Moreover, it is important to note that Canadians should not be told what to do in terms of what is being best for them. Instead it is advised to “plant a seed” and let the Canadians draw their own conclusions based on the propositions made. Furthermore, there are various Dutch missions located in Canada, which can provide assistance in terms of developing business networks, and also arrange trade missions, which offer matchmaking opportunities in Canada. Finally, it is advised to become a member of an industry association like the Shipbuilding Association of Canada to increase exposure and presence within the industry.

Another strongly recommended option is to enter the Canadian shipbuilding industry by seeking cooperation through a Canadian-based entity like an agent, distributor or a local partner. Local intermediaries enjoy strong existing relationships within the industry, and therefore can aid Dutch maritime firms in providing unique advantages. To give an example, local intermediaries are usually very well acquainted with the Canadian business culture and know the mentality within the industry. In addition, they often employ foreign nationals and understand the industry and host-government regulations. Moreover, a local intermediary can provide invaluable market access through their established networks and therefore also tend to know the industry inside out. Finally, Dutch maritime firms may also use a local intermediary to leverage on their established reputation within the industry.

However, it is important to recognize, that the use of a local partner like an agent or distributor carries a number of risks. In the first place, Dutch maritime firms will have lesser or no control of how their products or services are being marketed and disturbed in the Canadian shipbuilding industry. Moreover, the intermediary may be reluctant to disclose market information, resulting in loss of potential opportunities. (Hollensen 2011, 337.) In addition, using a Canadian-based intermediary may result in significant lower profit margins due to the intermediary's obligation to achieve high levels of IRB or ITB. For this reason, other entry modes, such as creating a joint venture or performing a takeover, may be more suitable to tackle this entry barrier. However, for the vast majority of Dutch maritime firms, these entry modes remain far out of reach due to their capital-intensive nature.

### **6.3.2 Local Content Requirements**

Tackling the local content requirements to fulfil the IRB or ITB obligations can be achieved through various ways and varies, again, on the desirable mode of market entry. Dutch maritime firms who intend to enter the Canadian shipbuilding industry through direct exporting are left with one feasible option, which is to adhere to the following eligible IRB and ITB criteria: "The cost of parts or materials which the IRB

Authority can verify as being of Canadian origin, in that they have been exported from Canada and subsequently imported into Canada as parts or finished goods.” (see Industry Canada 2014b, IRB terms and conditions.)

In other words, a Dutch maritime supplier could consider part manufacturing in Canada or to procure its components or materials needed to manufacture its equipment from Canada. Subsequently, use the components or material to produce or assemble the equipment in the Netherlands and send it back to Canada by preferably by using a Canadian carrier. However, this approach might be considered as rather elaborate and depends on the sourcing materials being used by Dutch maritime firms. For example, a supplier who offers a software solution cannot leverage on this suggested solution to offset the local content requirements.

Furthermore, it is noteworthy to mention the option to fulfil the IRB and ITB obligations through indirect transactions. Indirect transactions are not directly linked to the products or services being procured but linked to investments, technology cooperation, and product mandates. This allows for creative and innovate ways to invest in the Canadian economy, like subcontracting IP or donating a piece of equipment to educational institutions.

Another strongly recommended option to tackle this barrier is, again, through seeking cooperation with a Canadian-based entity like an agent or distributor. Costs incurred by the local partner such as, overhead expenses including rent, electricity, water and insurances, as well as workers compensation, personal travel expenses (to maintain a contract), pre-tax net profit and transportation cost (in Canada or by a Canadian carrier), are all examples of expenses which the local partner can file as business actives to offset the IRB or ITB obligations. Consequently, this solution allows Dutch maritime firms to increase their levels of Canadian content value significantly, without making high (risks) investments in the Canadian economy. Moreover, the Canadian content value of the goods and services provided by potential contractors and suppliers represent a significant factor in the shipyard's

supplier selection process. Therefore, Canadian shipyards tend to favour to cooperate with a local intermediary due to their capabilities to increase the Canadian content value.

Finally, to achieve the highest levels of Canadian content, Dutch maritime firms are advised to establish a local presence in Canada by e.g. creating a joint venture, establishing a wholly owned subsidiary, or performing a takeover. However, this solution may not be considered as feasible due to the significant capital requirements needed to opt for these entry modes.

### **6.3.3 Information Gaps about the IRB and ITB Policy**

Various solutions are available to tackle the information gaps and lack of clear information regarding the IRB and ITB policy. Dutch maritime firms, which intend to enter the industry by themselves but experience challenges with navigating through these policies, are strongly advised to engage with Industry Canada. Industry Canada is the overseeing agency of Canadian government that administers these policies and their core policy team is very approachable to clarify any information gaps issues to help Dutch maritime firms better understand and benefit from these policies.

Another solution to tackle this barrier is though becoming an approved supplier of the Canadian shipyards. This process starts with registering as supplier on the Canadian shipyard's website. Subsequently, once the approval has been granted, Dutch maritime suppliers gain access to the shipyard's supplier portals and may expect to start receiving requests for information, quotations, or proposals, which are either send directly from the shipyard to the supplier or uploaded by the shipyard on the supplier portal. Along with these requests, fairly clear guidelines regarding the IRB or ITB policy are provided. These guidelines include, instructions regarding the methodology for determining the Canadian content value and the type of costs of business activities that are eligible and ineligible as IRB credits are specified in these guidelines as well. In addition, instructions are given how potential contractors and suppliers should report their Canadian content value in their bids



(see Appendix 5). One should note, that this process seems elaborate and time-consuming.

For this reason, it is strongly recommended to tackle this barrier by using a Canadian-based intermediary. Opting for this entry mode will allow Dutch maritime firms to avoid the paperwork hassle involved with IRB and ITB policies since the local partner becomes responsible to report the IRB or ITB transactions. In addition, partnering up with a local intermediary also makes an effective solution to bypass the shipyards procurement procedures.

### **6.3.4 Canada's Large Geographical Size**

Tackling the entry barriers associated with the large geographical size of Canada can be achieved through seeking cooperation with various Canadian-based intermediaries such as agents and distributors or by establishing a local presence in Canada.

Seeking cooperation through West- and East Canadian-based intermediaries would especially be beneficial to overcome the time zone differences, as well as the long travel distances when covering both areas in Canada. Moreover, it allows Dutch maritime firms to turn responsibilities such as handling shipping through customs and dealing with local government regulations over to the local intermediary. Furthermore, this solution allows Dutch maritime firms to leverage on established and reliable distribution networks, which may result in faster and cost-effective transportation. Finally, Dutch maritime firms may also leverage on a distributor's storage capabilities without the need to invest in a physical location in Canada.

Another option to tackle this barrier is by gaining a foothold in Canada through establishing a wholly owned subsidiary, creating a joint venture or performing a takeover. The advantages of these types of entry modes include lower transportations costs, direct access to Canada's transportation infrastructure, and faster entry into the Canadian shipbuilding industry. However, one might, for

example establish a firm in British Columbia but still have to coop with the long travel times and high travel expenses when also conducting business in Nova Scotia. Therefore, it is strongly recommended to tackle this barrier through the aforementioned solution of seeking cooperation with various local-based intermediaries when covering both the Western and Eastern parts of Canada.

### **6.3.5 High Capital Requirements**

There are several solutions available to tackle the need of vast financial resources in order to compete more effectively within the Canadian shipbuilding industry. Dutch maritime firms who intend to enter the industry by themselves but experience difficulties with navigating through the IRB or ITB policy are strongly advised to engage with Industry Canada, which makes the need of hiring external consultants unnecessary.

Furthermore, it is strongly recommended for Dutch firms who lack the necessary capital or do not wish to make high (risks) investments in the Canadian economy, to tackle this barrier by seeking cooperation with a Canadian-based entity such as an agent, distributor or local partner. Consequently, Dutch maritime firms can increase the Canadian content value of their goods and services significantly without the need of making high (risk) investments in the Canadian economy (see sub-chapter 6.3.2). In addition, this solution also tackles the information gaps issues with the IRB and ITB policy because the process of reporting the Canadian content values is delegated to the Canadian-based entity.

Moreover, Dutch maritime firms which are willing to invest in the Canadian economy but are looking for opportunities to leverage costs are advised to reach out to the respective Canadian provincial government of their designated investment area. Canadian provincial governments are able to provide incentives in terms of capital or payroll rebates for potential investments like establishing a subsidiary that would create certain levels of employability within their respective regions.

Finally, the government of the Netherlands can also provide aid in terms of financial assistance for Dutch maritime firms who face challenges in financing their international business operations. The Dutch Ministry of Economic Affairs, for example, offers three government guarantee schemes, which are briefly outlined here below:

### **1. BMKB**

The BMKB credit guarantee program supports Dutch SMEs who, for example, wish to expand their business across borders but are unable to provide the bank with sufficient collateral to take out a loan. The government can aid by providing banks a government deposit up to 1.5 million euro, which means it takes on the risk of the loan, so that the bank is more likely to provide the loan to Dutch SMEs.

### **2. The Grow Facility**

The Growth Facility program provides banks a 50% guarantee on issued venture capital for entrepreneurs, who for example, want to expand their business abroad. In case the funding leads to unexpected loss then the government pays 50% of the loss, which reduces the risk of the bank considerably.

### **3. Guarantee Enterprise Financing**

The Guarantee Enterprise Financing program is similar to the BMKB program but supports Dutch medium and large sized enterprise instead. The government of the Netherlands supports by issuing a state guarantee up to 75 million euro, which means it takes on the risk of the loan, so that the bank is more likely to offer the loan to Dutch medium and large sized enterprises.

More detailed information on these government guarantee schemes can be found on the “Doing Business Abroad’ website of the Netherlands Enterprise Agency.

## 7 DISCUSSION

The Dutch shipbuilding and marine equipment industry operates at the forefront of the global maritime industry and contributes significantly to the prosperity of the Netherlands. However, maintaining this leading position is certainly not a given considering global developments and emerging maritime economies like the BRICS countries. This study aimed to retain the leading position of the industry by responding to Canada's National Shipbuilding Procurement Strategy opportunities while identifying and tackling market entry barriers within the Canadian shipbuilding industry.

This study first examined various theories on internationalization to pinpoint and understand the internationalization process of a firm. In general, the reviewed literature revealed that firms are often triggered to internationalize by internal or external factors within the business environment. Thereafter, the internationalization process often proceeds incrementally as a firm establishes information channels and develops different positions within the international market environment. However, several impediments, known as entry barriers, may deter firms from competing in new international markets. Entry barriers are found in domestic markets as well, but different contexts can present unique challenges.

The process examined within this study ultimately proved consistent with the outlined literature review. An NSPS information session, arranged in March 2013 by NMT, triggered the Dutch shipbuilding and marine equipment industry to explore the Canadian market. In addition, a subsequent trade mission helped Dutch maritime firms establish information channels within the Canadian shipbuilding industry. However, feedback from these information channels eventually led the majority of Dutch maritime firms to discontinue efforts to enter the Canadian shipbuilding industry. Entry barriers of local content requirements and bottlenecks in local regulations were assumed to be the primary deterrents; however, no actions were taken to substantiate these assumptions.

Consequently, this study employed a qualitative research approach to gain deeper insights into the experienced entry barriers and discover feasible solutions how to overcome them. The empirical research of this study was conducted in three stages with the aid of Michael Porter's Five Forces Model and Pankaj Ghemawat's CAGE framework. The Five Forces Model was applied during the first stage, which helped to acquire a preliminary understanding of the Canadian shipbuilding industry. During the second stage, the CAGE framework was used to identify all experienced market entry barriers and group them according to the framework's cultural, administrative, geographic, and economic dimensions of distance. Finally, in stage three, feasible solutions were provided for tackling the primary entry barriers of each dimension.

### **7.1 Answering the Research Questions**

The primary objective of this study was to find out how Dutch maritime firms can enter the Canadian shipbuilding industry, given the existing constraints. In order to meet this objective, the following research questions were designed:

- What are the main market entry barriers that prevent the Dutch shipbuilding and marine equipment industry from capitalizing on Canada's National Shipbuilding Procurement Strategy opportunities?
- What are the possibilities to tackle the given market entry barriers in order to successfully enter the Canadian market?

To find answers regarding research question 1, three of the six Dutch maritime suppliers who participated in the trade mission in 2013 as well as a Canadian-based agent representing various Dutch maritime suppliers in the Canadian market were interviewed (see sub-chapter 6.2). Subsequently, five industry experts from the private and public sector were interviewed to explore feasible solutions how to overcome them (see sub-chapter 6.3). The collected data revealed, in total, 10 entry barriers of which five were identified as major impediments to market entry.

Figure 20 provides an overview of the identified primary entry barriers and their corresponding proposed solutions how to overcome them.



FIGURE 20. The identified entry barriers and their corresponding solutions

## **7.2 Managerial Implications**

This study will be, mainly useful to Dutch maritime firms (especially SMEs) with a budding interest in entering the Canadian shipbuilding industry. However, this study may also provide food for thought for other stakeholders, such as investment attraction agencies and governmental bodies that are committed to further intensify trade relations between the Netherlands and Canada.

An extensive overview of proposed recommendations to tackle the entry barriers in the Canadian shipbuilding industry is provided in sub-chapter 6.3. However, special attention should be given to the five key recommendations listed below.

### **1. Blend in with the industry and Canadian business culture**

It is importation to invest in long-term relationships in order to become successful in the Canadian Shipbuilding industry. If possible, visit Canada on a regular basis to maintain business relationships and gain trust within the industry. Consider becoming a member of the Canada's Shipbuilding Association to get more involved and participate in Canada's annual marine exhibition and conference, Mari-Tech, to increase exposure and further develop business networks within the industry. Finally, regardless how good a product or service might be, do not dictate in terms of what is being best for the industry; instead, allow Canadians the time and space to reflect and let them draw their own conclusions.

### **2. Seek cooperation with a Canadian-based intermediary**

Establishing a subsidiary or creating a joint venture is not necessarily required to gain a strong foothold within the industry or to tackle the local content requirements. In fact, opting for establishing a subsidiary may even work counter-productive due to the industry's long product adaption and market penetration times. Instead, partner up with a Canadian-based entity such as an agent or distributor. These type of intermediaries not only provide advantages such as an earned reputation, established relationships, and effective distribution channels; but also are capable of

increasing the Canadian content value significantly, as well as taking over the paperwork hassle in terms of reporting the IRB or ITB transactions and complying with the procurement procedures of the Canadian shipyards. In addition, procuring parts from Canada, part manufacturing in Canada or subcontracting IP are other alternatives to be considered to offset the local content requirements.

### **3. Engage with Industry Canada regarding the IRB and ITB policy**

The need of hiring external consultants to tackle the information gaps of the IRB and ITB policy appears to be a perceived barrier. This may have been caused by not having access to the right information channels. The Government of Canada's IRB and ITB policy are administered and managed by Industry Canada, which is the information resource to reach out to when it comes to the seeking advice regarding both policies. Industry Canada provides advice on both the policy and operational-side to ensure that firms know how to navigate through and benefit from these policies. The protocol to engage with Industry Canada is through the Dutch Embassy in Canada and an information channel between the Dutch Embassy and Industry Canada has recently been established as an outcome of this research.

### **4. Engage with one of Canada's Regional Development Agencies**

Dutch maritime firms with a strong interest in entering the Canadian market are encouraged to engage with one of Canada's Regional Development Agencies. These agencies not only provide support in terms of establishing partnerships with prime contractors and top tier suppliers but also are capable of partnering up with Canadian provincial governments to evaluate whether investment incentives such as capital or payroll rebates are available for Dutch maritime firms that wish to invest in the Canadian economy but are looking for opportunities to help leverage costs.

### **5. Industry level recommendations**

NMT is advised to evaluate the possibility of hosting a Holland Pavilion during Canada's next International Marine Conference & Exhibition, Mari-Tech, to increase the exposure of the Dutch shipbuilding and marine equipment industry in Canada.



Moreover, it is recommended to evaluate whether the Royal Netherlands Navy can assist in terms of demonstrating the capabilities of their navy vessels to persuade the industry to innovate more and make them choose for technology, products and expertise from the Netherlands. Finally, despite the EU-Canada trade agreement has recently been concluded (which excludes Canadian government shipbuilding procurements); NMT is advised to take similar measures, to address the Canadian local content issues, as currently is being done with the U.S. Jones Act, during the next possible occasion.

### **7.3 Limitations**

A matter of concern with this study relates to the extent to which it can be generalized. This study is performed on industry level, which means a certain degree of generalizability is paramount for its applicability. However, reaching high levels of generalization was experienced as challenging since the Dutch shipbuilding and marine equipment industry is made up of a wide variety of maritime firms, which operate in diverse (niche) areas and thus often experience different market conditions. The developed Five Forces and CAGE analyses are therefore somewhat limited in terms of their applicability for the entire industry. To give an example, the bargaining power of a firm that supplies maritime valves may be significantly different compared to a firm that supplies a highly innovative shipbuilding software solution to shipyards. In addition, similar challenges were experienced with identifying the market entry barriers; since an entry barrier may be experienced by one maritime firm but not by another. For this reason, all identified market entry barriers, regardless of their significance, were included and extensively reviewed in sub-chapter 6.2 to help ensure the generality of this study to the greatest possible extent.

Another limitation that needs to be addressed is that despite of being reached out to, no Canadian shipyards were interviewed for this study. Thus, the researcher may have been vulnerable to a certain degree of subjectivity since the supplier-side is

stronger voiced in this study. Furthermore, some of the interviews were conducted in Dutch and thereafter translated from Dutch into English, which may have resulted in translation deficiencies, in terms of formulating the outcome into English in their original context. Finally, prior to undertaking this research, the researcher lacked any relevant experience within the industry, which may have limited this study's level of thoroughness and may also have led to an overabundance of information that is generally well-understood by the industry.

#### **7.4 Future Research Avenues**

The current state of the various shipbuilding projects under the NSPS program is that most projects are well underway. Irving Shipbuilding will start with the production of the 6-8 Artic/Offshore Patrol Vessels in September 2015, and the production of the 2 Joint Support Ships, 3 Offshore Fisheries and Science Vessels, and 1 Polar Icebreaker by Seaspan Shipyards are expected to begin on a short-term basis as well.

Consequently, most of the requests for proposals have been send out given long lead times and contract negotiations. Resulting in the fact that currently few prospects exist in terms of business opportunities from the Canadian shipyards. However, there may still be indirect opportunities left on these projects with major suppliers and therefore, it is necessary to identify whom these top tier suppliers are and their respective decision makers.

Moreover, the NSPS combat package that includes the construction of 15 Canadian Surface Combatants (valued at 25 million CAD) by Irving Shipbuilding, is in its very early stages as the procurement strategy is currently being subject to approval. As soon as the designs of these ships have been confirmed, it is proposed to determine which systems, sub-systems and other relevant components from these ships may provide leverage potential in terms of business opportunities for the Dutch shipbuilding and marine equipment industry. Subsequently, these identified systems, sub-systems, and components should be linked to potential Dutch maritime firms, which can supply or produce the items or services needed to build these vessels.

The Duke Centre on Globalization, Governance & Competiveness, developed a similar kind of study in 2013 for Nova Scotia-based firms to help them capitalize on the initial NSPS opportunities.

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## Appendices

### Appendix 1. List of All Interview Questions

#### Interview question - preliminary market analysis Canadian shipbuilding industry

1. How much bargaining power do suppliers (e.g. marine equipment firms) have within the Canadian shipbuilding Industry?
2. How much bargaining power do buyers (e.g. the Canadian government or Canadian Shipyards) have within the Canadian shipbuilding industry?

*Interviews were conducted in Dutch; see Appendix 2 for the original version of the interview questions.*

#### Interview questions – identifying market entry barriers

1. Which cultural related barriers (e.g. language, values, norms, taboos etc.) exist in the Canadian shipbuilding industry?
  - *What are possible solutions to overcome them?*
2. Which administrative related barriers (e.g. bottlenecks in provincial regulations, local content requirements, licensing requirements, political hostility, free trade limitations etc.) exist in the Canadian shipbuilding industry?
  - *What are possible solutions to overcome them?*
3. Which economic related barriers (e.g. capital requirements, GDP, stability currency exchange rate, tax barriers, expected local and global competition, cost advantages of incumbents etc.) exist in the Canadian shipbuilding industry?
  - *What are possible solutions to overcome them?*
4. Which geographic barriers (e.g. transportation costs, access to distribution channels, time zones, geographical size, available infrastructure, availability of

resources etc.) exist in the Canadian shipbuilding industry?

➤ *What are possible solutions to overcome them?*

*Interviews were conducted in Dutch; see Appendix 2 for the original version of the interview questions.*

### **Interview questions - identifying solutions for tackling market entry barriers**

#### Interview 1

1. Dutch maritime suppliers perceive the Canadian shipbuilding industry as conservative, modest, and risk-averse. How can an agent support Dutch maritime firms to deal with this?
2. How can an agent support Dutch maritime firms to offset the local content requirements?
3. How can an agent support Dutch maritime firms with the experienced information gaps of the IRB and ITB policy?
4. How can an agent support Dutch maritime firms to deal with Canada's large geographical size?
5. Dutch maritime firms are forced to invest heavily in the Canadian economy by e.g. establishing a subsidiary in Canada to achieve high levels of Canadian content, which makes it extremely difficult for Dutch maritime firms (especially SMEs) to enter the Canadian shipbuilding industry. Which support can an agent provide to achieve high levels of content without these making high (risks) investments?

#### Interview 2

1. Dutch maritime suppliers perceive the Canadian shipbuilding industry as conservative, modest, and risk-averse. How would you advise Dutch maritime firms to deal with this?

2. How to deal with the local content requirements?
  - How to tackle the lack of clear information / information gaps regarding this policy?
3. Does the CETA trade agreement provide opportunities for Dutch maritime firms?
4. How to deal with the vast geographical size of Canada in terms of time zones issues, transportation costs, high travel expenses and finding the right distribution channels?
5. How to deal with the significant capital requirements needed to achieve high levels of Canadian content?
  - Does the Dutch or Canadian government provide any financial assistance in case Dutch maritime firms are willing to invest in the Canadian economy through e.g. establishing a subsidiary in Canada?
6. Does the U.S has a better import agreement with Canada compared to the Netherlands?

*Interview was conducted in Dutch; see Appendix 2 for the original version of the interview questions.*

### Interview 3

1. I read that the procurements contracted prior to the February 2014 DPS (defense Procurement strategy) announcement will continue to have IRB obligations.
  - How does this impact the NSPS procurements?
2. Incase future procurement contracts under the NSPS program will fall under the new ITB policy. How does this new policy impact Dutch maritime suppliers in terms of fulfilling their ITB obligations incase they wish to quote for future contracts?

3. Dutch maritime firms are forced to invest heavily in the Canadian economy by e.g. establishing a subsidiary in Canada to achieve high levels of Canadian content, which makes it extremely difficult for Dutch maritime firms (especially SMEs) to enter the Canadian shipbuilding industry.
  - What is your opinion about this?
  - How would you advise Dutch maritime firms to enter Canadian shipbuilding industry given this market entry barrier?
4. There are many aspects of the IRB policy that are not well understood by the industry, and to tackle this problem, external consultants need to be hired, which translates to significant costs prior to having anything sold in Canada.
  - What is your opinion about this?
  - Can Dutch maritime firms contact an IRB / ITB manager of Industry Canada or an official of the Canadian regional development agencies in case they have any questions regarding the policy? If so, are there any costs involved?

#### Interview 4

1. Dutch maritime firms are forced to invest heavily in the Canadian economy by e.g. establishing a subsidiary in Canada to achieve high levels of Canadian content, which makes it extremely difficult for Dutch maritime firms (especially SMEs) to enter the Canadian shipbuilding industry.
  - What is your opinion about this?
  - How would you advise Dutch maritime firms to enter Canadian shipbuilding industry given this market entry barrier?
  - Does the Canadian government provide any financial assistance in case Dutch firms would like to invest in the Canadian economy by e.g. establishing a subsidiary in Canada.
2. There are many aspects of the IRB policy which are not well understood / unclear by the industry, and to tackle this problem, external consultants need

to be hired, which translates to significant costs prior to having anything sold in Canada.

- What is your opinion about this?
  - Can Dutch maritime firms contact an official of the Canadian regional development agencies in case they have any questions regarding the policy? If so, are there any costs involved?
3. How would you advise Dutch maritime firms to deal with the vast geographical size of Canada in terms of time zones issues, transportation costs, long distances, high travel expenses etc.?

#### Interview 5

1. Dutch maritime suppliers perceive the Canadian shipbuilding industry as conservative, modest, and risk-averse. How would you advise Dutch maritime firms to deal with this?
2. How to deal with the local content requirements?
  - How to tackle the lack of clear information / information gaps regarding this policy?
  - Have there been lobby efforts for the Dutch maritime industry regarding the trade agreement between Canada and the EU?
3. How to deal with the vast geographical size of Canada in terms of time zones issues, transportation costs, high travel expenses and finding the right distribution channels?
4. How to deal with the significant capital requirements needed to achieve a high level of Canadian content?

*Interview was conducted in Dutch; see Appendix 2 for the original version of the interview questions.*

## **Appendix 2. List of Interview Questions Conducted in Dutch**

### **Interview question - preliminary market analysis Canadian shipbuilding industry**

1. Hoeveel onderhandelingskracht hebben toeleveranciers (bijv. maritieme toeleveranciers) binnen de Canadese scheepsbouw industrie?
2. Hoeveel onderhandelingskracht hebben afnemers (bijv. de Canadese overheid en Canadese Scheepswerven) binnen de Canadese scheepsbouw industrie?

### **Interview questions - identifying entry barriers Canadian shipbuilding Industry**

1. Welke culturele gerelateerde barrières (bijv. taal, waarden, normen, taboes etc.) bestaan er in de Canadese scheepsbouw industrie?
  - Waar zitten de mogelijkheden om deze barrières te overkomen?
2. Welke administratieve barrières (bijv. knelpunten in provinciale regelgeving, lokale content vereisten, licentie vereisten, politieke vijandigheid, handelsbelemmeringen etc.) bestaan er in de Canadese scheepsbouw?
  - Waar zitten de mogelijkheden om deze barrières te overkomen?
3. Welke economische barrières (bijv. kapitaalvereisten, BBP, de stabiliteit van de wisselkoers, fiscale belemmeringen, lokale en wereldwijde concurrentie, kostenvoordelen van gevestigde bedrijven etc.) bestaan er in de Canadese scheepsbouw?
  - Waar zitten de mogelijkheden om deze barrières te overkomen?
4. Welke geografische barrières (bijv. transportkosten, toegang tot distributiekkanalen, tijdzones, geografische omvang, beschikbare infrastructuur, beschikbaarheid van middelen etc.) bestaan er in de Canadese scheepsbouw?
  - Waar zitten de mogelijkheden om deze barrières te overkomen?

## **Interview questions - identifying solutions for tackling market entry barriers**

### **Canadian shipbuilding Industry**

#### Interview 2

1. Hoe om te gaan met de conservatieve, bescheiden en risico mijdende Canadese business cultuur?
2. Hoe om te gaan met de lokale content vereisten?
  - Hoe om te gaan met de beperkte informatievoorziening betreffende dit beleid?
3. Waar zitten de mogelijkheden in het CETA handelsakkoord voor de Nederlandse maritieme industrie?
4. Hoe om te gaan met de enorme geografische omvang van Canada ( tijdzones, transport en reis kosten, distributie kanalen) van Canada?
5. Hoe om te gaan met de significante kapitaalvereisten om aan de lokale content vereisten te voldoen ?
  - Wordt er financiële ondersteuning geboden vanuit Nederland of Canada voor Nederlandse maritieme bedrijven die overwegen om te investeren in de Canadese economie, door bijvoorbeeld het openen van een lokale vestiging in Canada?
6. Heeft Amerika een beter fiscaal import overeenkomst met Canada dan Nederland ?

#### Interview 5

1. Hoe om te gaan met de conservatieve, bescheiden en risico mijdende Canadese business cultuur?
2. Hoe om te gaan met de lokale content vereisten (IRB beleid) ?
  - Hoe om te gaan met de beperkte informatievoorziening betreffende dit beleid?



- In welke mate is er door NMT gelobbyd voor de Nederlandse maritieme industrie voor wat betreft het handelsakkoord tussen Canada en de EU ?
3. Hoe om te gaan met de enorme geografische omvang van Canada ( tijdzones, afstanden, transport en reiskosten, distributie kosten) van Canada?
  4. Hoe om te gaan met de significante kapitaalvereisten om aan de lokale content vereisten te voldoen ?

## **Appendix 3. List of Data Analysis Categories**

### **Categories – preliminary market analysis**

- Bargaining power of suppliers
- Bargaining power of buyers

### **Categories – identifying market entry barriers**

- Cultural Barriers
  - Conservative, modest, and risk-averse
  - French language
- Administrative barriers
  - Local content requirements
    - Information gaps about the local content requirements
  - Imperial vs. Metric
  - Bureaucracy
- Geographical Barriers
  - Transportation costs
  - Geographical size
  - Time zones
- Economic Barriers
  - High capital requirements
  - Worldwide competition
  - Currency fluctuations

### **Categories – identifying solutions to the market entry barriers**

- Tackling Canadian business culture
- Tackling local content requirements
- Tackling information gaps about the local content requirements
- Tackling Canada's large geographical size
- Tackling High Capital Requirements

## Appendix 4. Overview Key Statistics Canadian Shipbuilding Industry

## Key Statistics Canadian Shipbuilding Industry 2005 – 2019

Industry Data	Revenue (\$m)	Industry Value Added (\$m)	Establishments	Enterprises	Employment	Exports (\$m)	Imports (\$m)	Wages (\$m)	Domestic Demand	Total value of world trade (\$ trillion)				
											2005	2006	2007	2008
2005	542.3	251.0	194	170	3,700	69.4	417.4	205.7	890.3	12.9				
2006	543.6	246.4	191	166	3,270	70.9	218.2	197.5	690.9	14.9				
2007	551.2	252.9	176	150	3,454	129.8	235.0	210.5	656.4	17.4				
2008	767.4	305.6	170	163	3,799	66.9	420.0	219.6	1,120.5	19.9				
2009	835.5	356.1	163	163	4,103	107.4	592.9	259.2	1,321.0	16.0				
2010	666.5	308.3	167	154	4,399	54.0	419.6	233.7	1,032.1	19.0				
2011	656.0	293.7	150	142	4,126	77.5	612.6	224.1	1,191.1	22.5				
2012	701.8	294.5	152	140	4,184	64.4	93.7	231.3	731.1	22.6				
2013	785.8	312.9	156	140	4,312	67.5	557.1	245.3	1,275.4	23.2				
2014	<b>823.7</b>	<b>322.6</b>	<b>159</b>	<b>140</b>	<b>4,465</b>	<b>72.1</b>	<b>631.2</b>	<b>255.8</b>	<b>1,382.8</b>	<b>24.2</b>				
2015	835.2	329.6	160	138	4,585	77.3	652.3	262.4	1,410.2	25.3				
2016	847.5	337.2	162	137	4,669	78.8	681.5	267.4	1,450.2	26.7				
2017	865.7	346.2	164	136	4,722	80.6	721.8	271.5	1,506.9	28.5				
2018	891.1	351.6	167	135	4,784	85.8	754.2	276.8	1,559.5	31.0				
2019	922.7	360.7	172	135	4,852	87.7	779.1	282.9	1,614.1	33.7				

Figures are inflation-adjusted 2014 Canadian dollars.

FIGURE 21. Key statistics Canadian shipbuilding industry 2005 – 2019 (Crompton 2014, 30 edited)

## Appendix 5. Transaction Form - Canadian Content Value

<b>Transaction Value:</b>	
Total Transaction Value:	
% of Canadian Content Value:	The percentage of the IRB recipient's product, service or activity which is Canadian
Total Canadian Content Value:	Total transaction value multiplies the CCV%
<b>Sourcing Region</b>	
Region:	Select the region of the IRB recipient
City, Province:	Indicate the city and province of the IRB recipient
<b>Small Business:</b>	
	Does the IRB recipient have fewer than 250 full-time employees(yes/No)?
<b>Company Providing IRB (Donor)</b>	
Company:	IRB recipient's name and contact information
Address:	
Contact:	
Tel:	

Fax:	
Email:	
<b>Industrial Sector and Expertise of the IRB Recipient:</b>	
<p>Describe the IRB recipient in detail, including details such as business history, number of employees, locations in Canada, etc.</p> <p>Provide a complete and detailed description of the proposed IRB activity, so that it is clear what is the:</p> <ul style="list-style-type: none"> <li>- location of the work in Canada</li> <li>- nature of the work (design, manufacturing, support services, R&amp;D, etc.)</li> <li>- estimated quantities and timelines</li> <li>- export market, platform or program involved (if applicable) and,</li> <li>- any other relevant information.</li> </ul>	
<b>Quality of IRB Transaction:</b>	
<p>Provide description of the quality of the individual Transaction. For example, increases in employment, increased marketability of recipient company, international exposure, experience with new technology, etc.</p>	