LAHDEN AMMATTIKORKEAKOULU
Lahti University of Applied Sciences

DECISION-MAKING PROCESS OF INTERNATIONALIZATION

Canadian Water Heater Markets

LAHTI UNIVERSITY OF APPLIED SCIENCES
Faculty of Business Studies
International Trade
Spring 2013
Moncada, Atloc

Lahden ammattikorkeakoulu
Koulutusohjelma

MONCADA, ATLOC: Kansainvälistymisen Päätöksenteko Prosessi
Kanadan Vedenlämmitin Markkinat

Kansainvälisen kaupan opinnäytetyö, 103 sivua, 7 liitesivua

Kevät 2013

TIIVISTELMÄ

Energia tehokkaat vedenlämmitys ratkaisut ovat yleistymässä maailmanlaajuisesti kovaa vauhtia. Kasvava tietoisuus tuotteiden saatavuudesta ja toiminnallisuudesta, sekä alan viime vuosien teknologiset kehitykset ja kohtuullisempi hintataso ovat edes auttaneet tätä ilmiötä. Tämä kehitys on tuonut uusia mahdollisuuksia erityisesti Pohjois-Amerikan markkinoilla pienille ja keskisuurille yrityksille.

Tutkimustyön tavoitteena on selvittää tarjoaako Kanadan vedenlämmitin markkinat mahdollisuuksia case-yrityksen tankittomille vedenlämmitin tuotteille, ja täten tuoda tarvittavat välineet kansainväliseen päätöksenteko prosessiin. Tutkimus tuo tietoa Kanadan markkinoiden erikoisvaatimuksista ja piirteistä, vedenlämmitin markkinoiden potentiaalisuudesta, kilpailutilanteesta, sekä analyysin sopivimmasta operaatiomuodosta case-yritykselle.

Lähestymistapa tutkimustyöhön on induktiivinen, käyttäen laadullista tiedon keruumenetelmää. Materiaali teoriittiseen viitekehykseen on koottu pääsääntöisesti julkaistuista artikkeleista ja kirjallisuudesta, kun taas empiirinen osa kokoaa tietoa haastatteluista ja muista julkaistuista lähteistä, kuten Internetistä, artikkeleista ja virallisista hallituksen lähteistä.

Teoriittinen viitekehys asettaa pohjan kansainvälistymisen päätöksenteko prosessille ja sen arvioinnille. Empiirinen osuus koostuu case-yrityksen sisäisen valmiuden analyysista kansainvälistymiselle uusille markkinoille, tutkimuksen Kanadan markkinapotentiaalisuudesta ja niiden erityispiirteistä, sekä operaatiomuotostrategian valinnasta.

Johtopäätöksinä kirjoittaja huomaa Kanadan vedenlämmitin markkinoiden omaavan mahdollisuuksia case-yrityksen tuotteille. Kuitenkin, jotta tämä mahdollisuus voitaisiin hyödyntää, tulee tietyt markkinoiden erikoispiirteet ja vaatimukset täyttää jotta markkinoille tulo olisi onnistunut.

Asiasanat: kansainvälistyminen, Kanadan markkinat, vedenlämmitin markkinat, tankiton vedenlämmitin

Lahti University of Applied Sciences
Degree Program in International Trade

MONCADA, ATLOC: Decision Making Process of Internationalization
Canadian water heater markets

Bachelor's Thesis in International Trade, 103 pages, 7 pages of appendices

Spring 2013

ABSTRACT

The use of more energy efficient water heating solutions is becoming more common worldwide. This is due to the increasing awareness of the availability and functionality of such products, and because of to the technological improvements and more moderate prices achieved during the recent years in the industry. The development has created new possibilities especially in the North American markets for small and medium sized companies.

The goal of this study is to find out whether the Canadian water heating markets possess opportunities for the case company´s tankless water heater product, and thus provide the necessary tools for the decision-making of internationalization. The study provides information about special characteristics and requirements of the Canadian market, the potentiality of the water heating markets and competition situation, as well as an analysis which of the entry-mode strategy that would be the most suitable for the case company.

The research approach to the study is inductive, using qualitative data collecting method. The material for the theoretical framework is collected mainly from published articles and books, while the empirical part gathers information through questionnaires and other published sources such as Internet, articles and governmental sources.

The theoretical framework of the study sets the base for the decision-making of internationalization and it´s evaluation. The empirical part of the study consists of an analysis of the case company´s internal readiness for the internationalization to new markets, analysis of the Canadian markets opportunity and special characteristics, and the market entry strategy.

In conclusion, the author finds the Canadian water heating markets to have potential for the case company´s products. However, to be able to siege the opportunity, several special requirement and characteristics of the markets have to be met before entering them successfully.

Key words: internationalization, Canadian markets, water heating industry, tankless water heater

TABLE OF CONTENT

FIGURES

TABLES

1 INTRODUCTION

1.1 Background of the study

Tankless Water Heaters are becoming more and more common among the consumers residential water heating systems world wide, as their technical improvements and knowledge of their advantages compared to the more common tank water heating systems have spread during the last years. The recent trends to find more environmental friendly solutions, as well as the shift of the production to low cost countries, has courage and the companies and governments the tools to search and support new solutions that could compete with quality and prices among the traditional water heating systems in the industry. This has opened doors for small and medium enterprises to enter new markets, and challenge the current market leaders bringing a new variety of competitive products for the consumers.

The lack of competition in the low cost tankless water heater market and the increased interest from the Canadian markets towards the case company´s products raised interest the case company´s interest to find out more about the real potential of expansion to the Canadian markets. After the first experimental penetration intent to the Canadian markets, the case company founded necessary to make a deeper investigation of the markets potential, possible restrictions and regulations as well as the competitive situation. This occurred during the authors work experience in the case company, in the exports and marketing department (2012-2013). It was suggested that the subject of the authors thesis would be to investigate whether the case company should enter the Canadian markets or not, and if yes, how should it be done.

For the decision making process of whether to internationalize or not, it is important to understand the whole process behind it and the level of commitment that is required from the company once the decision to internationalize has been made. Proper market research and entry strategy planning are the basic tools to aid in the decision-making process. The purpose of this thesis it to provide the tools to make the decision whether internationalize towards the new markets or not.

1.2 The goals and limitations of the study

The goal of the study is to obtain market information of the Canadian water heater markets, and find out whether the case company should enter the markets and how should be done. The study will also form a country profile of Canada, and investigate the consumers and competitive situation of the market. The purpose is to provide a strategic approach to the internationalization decision-making process through market study, and thus work as base for the commitment in the internationalization towards new markets.

The research questions for the study are:

- What special characteristics and requirements the Canadian markets consists?
- What is the potentiality of the Canadian water heater markets?
- What is the competition situation in the industry?
- How should the case company enter the Canadian water heater markets?

This study has been set to answer the basic question of internationalization: to find out the potential of the target market, and the best way to siege it. This said, it is realized that the process of internationalization requires more investigation and planning to be done, as also presented in the study's international decision making theory. These next steps and further studies that are needed to be able to siege the possible opportunity of the target market from the case companies point of view, are presented in the future researches chapter (7.1). Nevertheless, this study provides crucial material to answer to the principal question of whether the target market has an opportunity for the case company to enter or not. This how the study works as a vital source for the case company in the internationalization process.

1.3 Research methods

The research approach to the study is inductive. In inductive research, the hypothesis are collected during the research and tested afterwards. This suits well for this type of study, as there is no previous research done of the case company's products suitability for the target market.

International markets analyze and research includes also several research problems. The data's availability, inaccuracy, purposefully placed misleading data and differences in definitions as well as distortions in currency conversions are some of the problems that are known to exist in international market analyze. Since the quality of the studies varies, the obtained country information and data collected should be viewed as referential rather than the absolute truth. (Daniels, Radebaugh & Sullivan, 2004, 430-432)

To avoid these known research problems as much as possible, the data collection method selected is qualitative, containing interviews with a semi-structured questionnaire for a specific selected group. The interviewed group includes professionals from the Canadian markets, working with the same type of products that the case company sells. The author's personal working experience in the case company during 2012-2013 will work as a part of the primary research material. Secondary research material has been gathered from published sources like books, articles and other studies. Also, Internet sources have been used widely for the study.

1.4 The structure of the study

In addition to this introductory chapter, the study has been divided into seven major chapters. The theoretical framework has been divided into two chapters: internationalization and the decision-making process, and market opportunity and market entry. The following chapters for the theoretical part are: the company´s internal readiness, market opportunity analysis, market entry strategy, and conclusion part with future research suggestions. The structure of the study is presented in the Figure 1.

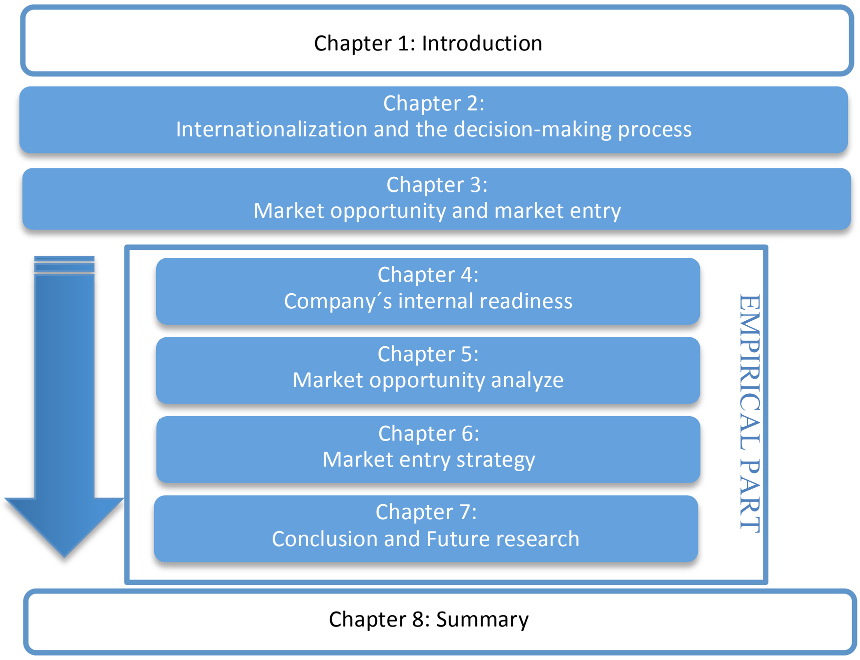


Figure 1. Structure of the study

Chapter 2 presents the theoretical framework of internationalization and the decision-making process. It includes companies' behavioral process in internationalization, and andecision-making model of internationalization. This chapter gives theoretical models for the subject, and a model where the structure of the thesis is based on.

Chapter 3 continues with the theoretical framework, presenting a market opportunity and market entry model. This includes models to examine the company´s internal readiness, markets potentiality, and entry mode strategy to siege the possible markets potentiality through the most suitable way for the case company.

Chapter 4 includes the empirical research of the case company, conducted by qualitative interview and the author's own personal working experience in the company. The chapter will analyze the company through McKinsey's 7s theory, and analyze the case company´s product.

Chapter 5 consists of a market opportunity analysis of the Canadian markets. The chapter starts by examining Canada through PESTEL –analysis. It continues with sub chapters of market size, potential consumers and competitors to give precise information of the water heater market situation in Canada. The research material has been collected from published sources and through qualitative research.

Chapter 6 will present the market entry strategy for the company chosen from the findings in the previous chapters and reflecting it to the method that would be most suitable for the case company. This chapter uses the theoretical framework introduced in the chapter 3.

Chapter 7 will conclude the research, and give answer to the set questions; whether the case company should internationalize towards the target markets or not, and what actions would needed to be done in order to successfully carry out the entrance to the new target market. The chapter will also present future research subjects and feasibility of the study.

Chapter 8 summarizes the whole study. This chapter will give an overview of the study's purpose and the findings.

1.5 Theoretical Framework

The theoretical key concept for the internationalization decision-making process is chosen to be the widely used Uppsala- model that was introduced in the book of Jan Johanson & Jan-Erik Vahlne: Journal of International Business Studies (1977). This model works as a good base, as it explains the company's behavioral approach to the internationalization process. Though, the Uppsala- model was recently updated to consider the importance of networking and relationship building in the process of internationalization in the article (Johanson & Vahlne, 2009). The revisited model will be used in the study as it completes the original theory and therefore corresponds better as the base theory in answering the research questions of the internationalization process of the present day.

The theory of Darling, J. and Seristö, H.: Key steps for success in export markets: A new paradigm for strategic decision-making (2004) was chosen to be the strategic approach for the internationalization decision-making process. This theory provides specific steps and framework to the factors that affects and lead to the internationalization of a company. It also provides an insight of the total process of internationalization, and of the on-going interaction that it has in it. This theory works as the key theory for this study.

The company's internal readiness has to be analyzed in order to decide whether the company has the needed capability and recourses to start internationalization. The internal aspect is examined through McKinsey's 7S model. The model analyzes the company's internal qualities and evaluates them according the decision-making situation.

The book of Aaker D.; Strategic market management (2001), was chosen to be the base theory to analyze the target markets opportunities and the competitor status in it. This theory answers effectively to the set research questions dividing the market analysis into four main factors: environment, market, customer and competitors. Also, the known model of Kotler & Amstrong; Principles of marketing (2012), is used to support the set main theory and to give deeper perception to the research.

The market entry strategy is examined through transaction cost theory of Anderson & Gatignon (1986). This theory divides the market entry strategies into three levels according the control: low-, medium- and high entry mode. The theory compares the entrant mode to the entrant's long-term return in the transaction, adjusted by risk.

2 INTERNATIONALIZATION AND IT’S DECISION MAKING PROCESS

To answer the research question: whether to internationalize towards the target markets or not, it is important to look into the company´s behavioral process in internationalization as well as the more practical approach through the used decision-making model. These theories form the base for the research. It also gives an internationalization process model to continue in an orderly form.

2.1 Companies behavioral process in internationalization

For the insight of the company’s internationalization, the widely used Uppsala –model provides perspective view of the rational internationalization process. According the Uppsala –model, the companies tend to start the process of internationalization from foreign markets that are close to the company’s domestic markets by using intermediates, such as sales agents and exports companies to be able to carry out the process. When the company increases its experience and knowledge of foreign markets current activities, the liability of the foreignness diminishes and the commitment decision strengthens. (Johansson & Vahlne, 2009, 1412-1413)

The original Uppsala –model was revisited by Johansson & Vahlne in 2009, adding a networking and relationship building view into the theory, as the importance of them was recognized later on in the international business literature. Now the internationalization is viewed more as a partnering and networking, and the process of knowledge and experience comes from the network interaction among experimental learning. According Johansson & Vahlne (2009), opportunities rises from partnership through knowledge, trust, and commitment. The success of internationalization depends of the company’s relationships. (Johansson & Vahlne, 2009, 1423-1425)

The revisited Uppsala model is presented in the Figure 2. This figure illustrates the dynamic process of learning, trust and commitment building through two sets of variables: state and change. These variables impact each other. For example, if the other party of the network has a good knowledge of the emerging opportunities, the other party of the relationship will probably experience a positive strengthening on it´s knowledge. Johansson & Vahlne considers this link of relationship and network to be a priority on what the internationalization process should depend on. The learning and knowledge depends on the network and relationships, and vise versa. (Johansson & Vahlne, 2009, 1423-1425)

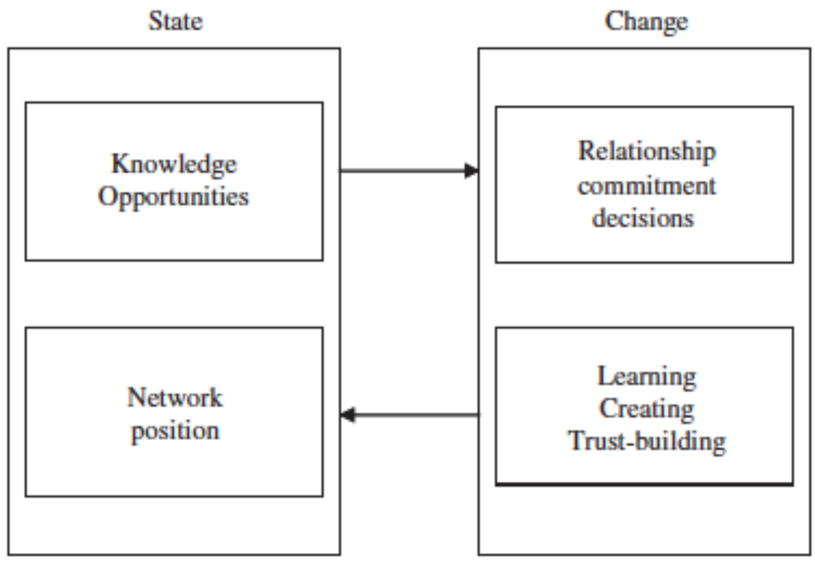


Figure 2. Business network internationalization process model (Johansson & Vahlne, 2009, 1424)

The Uppsala –model, as well as the revisited Uppsala –model, are an important base of theories for examining the internationalization process of companies because of their rational perspective. For this study, it is important to recognize the behavioral process that effects the internationalization of the companies, and also to enforce factors like networking and relationship building that positively promotes the company's success in the process. The recognition of the importance of networking and partnership in the revisited Uppsala –model, has an effect to the strategical approach of the internationalization.

2.2 Decision-making model of internationalization

Darling & Seristö model (2004) shows the key steps in the decision-making process was chosen as a practical approach to examine the internationalization of the case company. The model brings up essential questions in the decision-making strategy, providing the tools for an efficient analysis of the actions and plans required, so that the process of internationalization carries out successfully.

Darling & Seristö presents a decision-making model that consists of ten steps that are in continuous integration and reassessments between them (Figure 3). In this study, the first three steps will be examined, as this will serve as a tool to answer whether to internationalize towards the target market or not, or to "make a firm commitment" as stated in the fourth step of the decision-making model. These three steps consist (1) analyzing the potential market, (2) assess the potential product and (3) establish market entry mode. (Darling & Seristö 2004, 28-31)

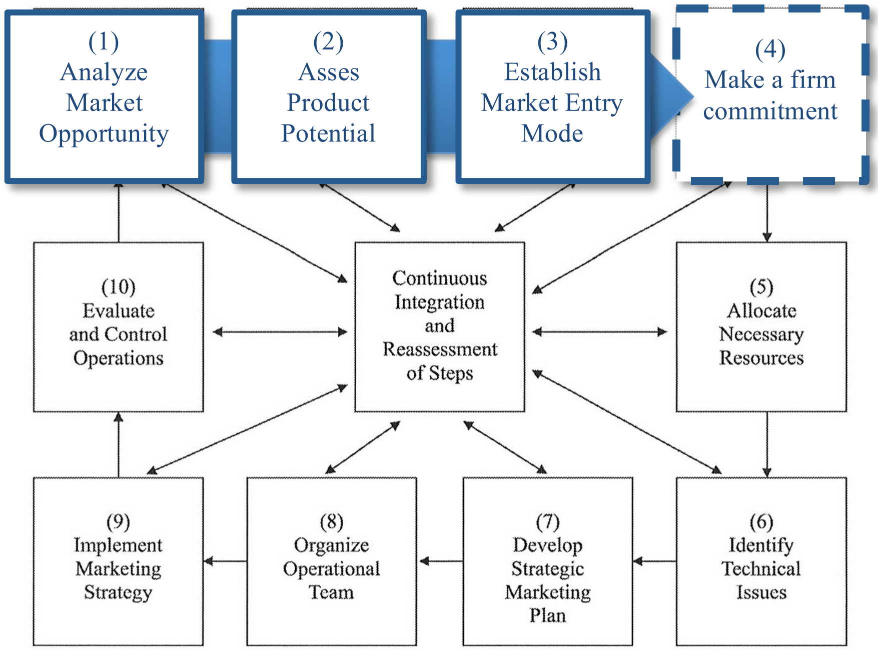


Figure 3. Studied steps in the Darling & Seristö key step model (Modified from: Darling & Seristö 2004, 29)

The models first step to analyze market opportunities is to determine the target markets suitability through characteristics. These characteristics Darling & Seristö lists to be population, climate, trade statistics, political structure and stability, economic climate, production and consumption technology, and level of governments control over the market place. The first step includes also an analysis of the competitive situation of the markets. (Darling & Seristö 2004, 30-31)

In the second step, the assessment of the product potential is examined as a type of benchmarking among the existing competitive products in the markets. This how the strengths and weaknesses of the company's products are listed and compared with the existing ones to find out what possible adaptation and modifications are needed, and which qualities brings advantages to the market. (Darling & Seristö 2004, 31-32)

According Darling & Seristö, the third step regarding the market entry strategy should be analyzed carefully by each possibility according the available recourses. These possibilities consists indirect and direct market entries. (Darling & Seristö 2004, 32-34) The market entry strategy model in chapter 3 presents a more specific approach through another theoretical framework.

To analyze these different steps, Darling & Seristö (2004) present various questions to determine the completeness of the analysis. In this study, the model of Darling & Seristö (2004) works as the key theory as it handles the subject from a strategic point of view, giving major guidelines to answer the set research questions.

3 MARKET OPPORTUNITY AND MARKET ENTRY

This chapter examines the market opportunity and the market entry strategy. To be able to siege the market opportunity, the company´s internal readiness for it needs to be examined. Once the company itself has been evaluated, the market potential can be analyzed, and the entry mode strategy selected.

3.1 Company’s internal readiness

According Holm-Olsen in the article of Best Practices in Determining Export Readiness (2009), to become a company that is export ready requires interest and dedication into it through recourses and capacities that sustain the export activities. It also requires that the exporting company has an advantage to the other actors in the target market. (Holm-Olsen, Finn. 2012)

According to Buckley & Ghauri (1989), organization and environment are the first element to be analyzed in a decision-making process. The organization has established its own policies, structures, systems and strategies, which can be also referred as the “way of doing things”. These guidelines have been set up from past experience and agreed goals between its members. The relationships of the individuals among the organizational policies influence any specific decision and implementation mode. (Buckley & Ghauri, 1989, 3-4) In this study, the organization will be examined by using McKinsey’s 7’s model.

The McKinsey’s 7’s model was developed to examine the company’s internal aspects that would need to be in aligned for the company to be successful. The model provides tools to analyze the independent hard and soft elements. Hard elements include strategy, structure and system, and soft elements include shared values, skills, style and staff of the company. Hard elements are easier to define and improve than the soft elements, as they tend to be influenced more by the surrounding culture. Despite that these elements are independent, the Figure 4 shows that a change in one element will affect and potentially change all the rest. (Mind Tools, 2013a)

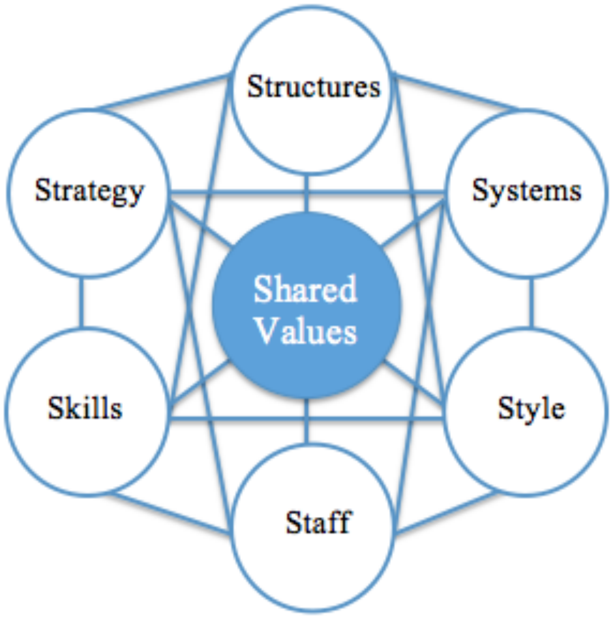


Figure 4. The McKinsey 7S model (Modified from: Lowell, 2008)

In the McKinsey's 7's model, "style" refers to the prevailing culture, or in other words, to the way the things are done in the company. "Skills" refer to the individual and institutional skills of the company. The "systems" are processes of the company, how the work is done inside the company. "Structure" refers to the organization diagram; the relationship network of the company. "Staff" is the people of the company. It examines the diversity of the people in the company and the talent that they represent. "Strategy" refers to the goals and objectives of the company; what the company is trying to do to gain competitive advantage. (Lowell, 2008)

In addition to the McKinsey's 7's model, the product will be analyzed. To do so, the model of Kotler & Amstrong (2012) is used to examine the different levels of the product. The different levels of the product are: core customer value (what is the buyer really buying), the actual product, and augmented product (offering some additional services and benefits). Each one of the levels are supporting the core customer value and thus adding value into it. (Kotler & Amstrong, 2012, 225-226)

3.2 Market potentiality

Daniels, Radebaugh & Sullivan (2007, 418-429) states that the decision or actions to take in the country selection depends on the opportunities and risks that the external conditions of the host country holds. These risks and opportunities can be divided into an external analysis that consists of the following factors: environment, market, consumer and competitors. The market research and analysis has no limits, which why it is necessary to determine frames for it. (Aaker, 2001, 19) In this study, the market analysis will be applied to answer the set research question according the research limitations. The Figure 5 will show the market analysis flow on the study.

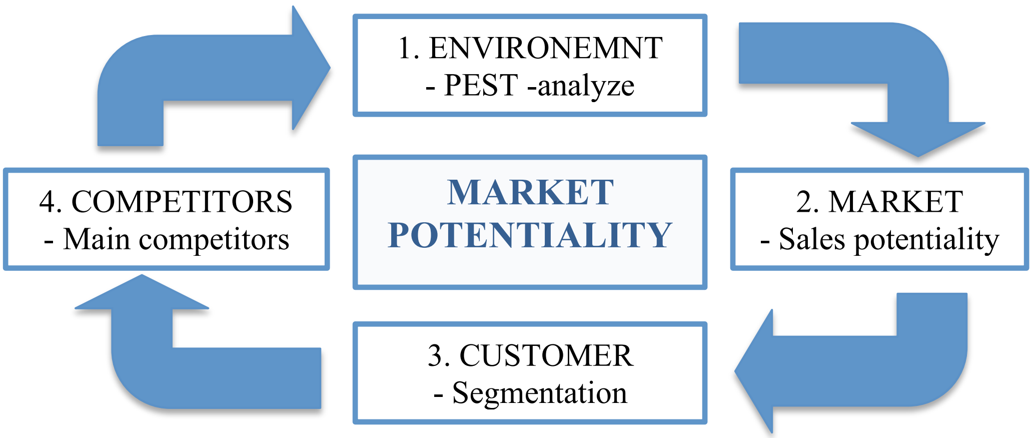


Figure 5. Market potentiality analysis workflow

According Aaker (2001, 22), the environment analysis includes the country's technological, governmental, economical, cultural and demographical factors. These factors determine the accessibility and challenges that the company's future operations could face (Aaker, 2001, 22). To analyze the environment, the PESTEL –analysis is used to give an overview of the country´s characteristics. The PESTEL –analysis includes six aspects of the evaluation of the new market: political, economical, socio-cultural, technological, environmental and legal. The political factor (1) examines the government's type and stability. It includes tax policies information, trade agreements and international relationships. The economical analysis (2) provides information on the purchasing power, economical key figures, and current and projected economical growth. Socio-cultural aspect (3) gives information on the populations growth, age, density and linguistics. It also gives an insight to the prevailing trends, values and perception. Technologies (4) include infrastructural situation of the country, and possibly other vital information on the country´s technological and automation situation. Environment (5) provides information on the climate and the changes in it that could affect to the company´s activities. The legal (6) aspect provides information on the prevailing legal system, consumers and workers legislation, and any special set codes or requirements that could affect the company's industry. (Mind Tools, 2013b)

The market size analysis is used to make rough estimates on the potential sale which is one of the most important factors when evaluating country´s true market potential (Justine, 2008, 52). The market analysis consists of information on the market size, projected growth, industry trends and key success factors. The main objective of the market analysis is to determine the market sales potentiality in the present and in the future, as well as the threats and opportunities that the market holds. (Aaker, 2001, 22-24)

It is necessary to divide large segments into smaller segmentation since companies normally cannot serve the whole market as the buying trends and needs vary in it (Kotler & Amstrong, 2012, 191). In the customer analysis, segments should be identified and formed into possible customer groups of the company. The objective in the segmentation is to create value for the targeted customer. (Aaker, 2001, 20-21)

For an effective marketing strategy, it is important to constantly analyze, observe and identify the existing and future competitors of the company. The competitor analysis consists of the process of identifying and determining the main competitors from whose actions to learn. Also the objective is to define the areas where the company has an opportunity to do better, and where it should improve it´s actions in order to compete better in the markets. (Kotler & Amstrong, 2012, 528-533)

3.3 Entry mode strategy

The foreign market entry mode strategies are widely investigated in international business, as it plays an important role in the internationalization process (Andersen 1997, 27). Agarwam and Ramaswami (1991, 2) refer to the company's entry mode as "a very important, if not a critical, strategic decision", since the selection involves recourse commitments in variable levels. The entry modes are divided generally into exporting, joint venture and direct investment modes. Indirect exporting involves intermediates and is normally the way companies start international activities as it involves low risk. Direct exporting means that the company handles by itself the whole exporting process. This normally includes higher risk and investment, but also the possibility of higher return. (Kotler & Amstrong, 2012, 562-563)

Many different frameworks have been presented to analyze the best possible foreign market entry mode for the company. These frameworks can be divided into four conceptual modes; entry mode as chain of establishment, transaction cost approach, the eclectic framework, and the organizational capability framework. Each of these frameworks provides tools for obtaining the most suitable entry strategy for the company (Figure 6). (Andersen, 1997, 27-42)

	Entry mode as a chain of establishment	Transaction cost approach	The eclectic framework	The organizational capability perspective
Basic theory	Resource-based theory	Transaction cost theory	Transaction cost theory, international trade theory, resource-based theory	Resource-based theory
Unit of analysis	Firm	Transaction	Firm	Firm
Explanatory variables	Firm's knowledge (i.e., experiential knowledge)	Transaction characteristics (e.g., asset specificity, uncertainty)	Ownership, locational, and internalizational advantages	Firm's capabilities (in particular, know-how)
Behavioral assumptions	Bounded rationality	Bounded rationality and opportunism	Bounded rationality (and opportunism)	Bounded rationality
Decision criteria	Trade-offs between growth and risk	Transaction cost minimization	Trade-offs between return, risk, control, and resources	Trade-offs between value and cost
Modes of entry	Entry mode according to an establishment chain: a) No export, b) Export via independent representative, c) Sales subsidiary, d) Manufacturing abroad	Several classifications; e.g., Contractual transfer, Joint Venture, Wholly owned operation	Several classifications; e.g., Independent mode, Co-operative mode, Integrated mode	Internalization vs. collaboration

Figure 6. Comparison of different entry mode frameworks (Andersen, 1997, 29)

In this study, the transaction cost theory approach was chosen to be the framework for the entry mode strategy. Transaction cost theory was chosen because of its long term-efficiency and vertical integration decision approach. This framework consists of one-decision criteria; transaction cost minimization (Andersen, 1997, 7-8), and thus compares the entry modes on “the entrant’s long run return of investment in an entry mode, adjusted for risk” (Anderson & Gatignon, 1986, 2).

Anderson & Gatigon (1986) classifies the entry modes into three different levels according the control given. These entry mode levels are: high control modes, medium control modes, and low control modes (Figure 7). The high control mode includes; wholly owned subsidiaries and dominant shareholder (many, few or one partner), and the medium control mode includes; pularity shareholders (many and few partners) and equal partnership, contractual joint venture and management, restrictive exclusive contracts (e.g., distribution agreement and license), franchising and also nonexclusive restrictive and exclusive non-restrictive contracts. The low control mode level includes small shareholder (many, few or one partner) and nonexclusive, non-restrictive contracts (e.g., intensive distribution, some licenses). (Anderson & Gatignon, 1986, 4-7)

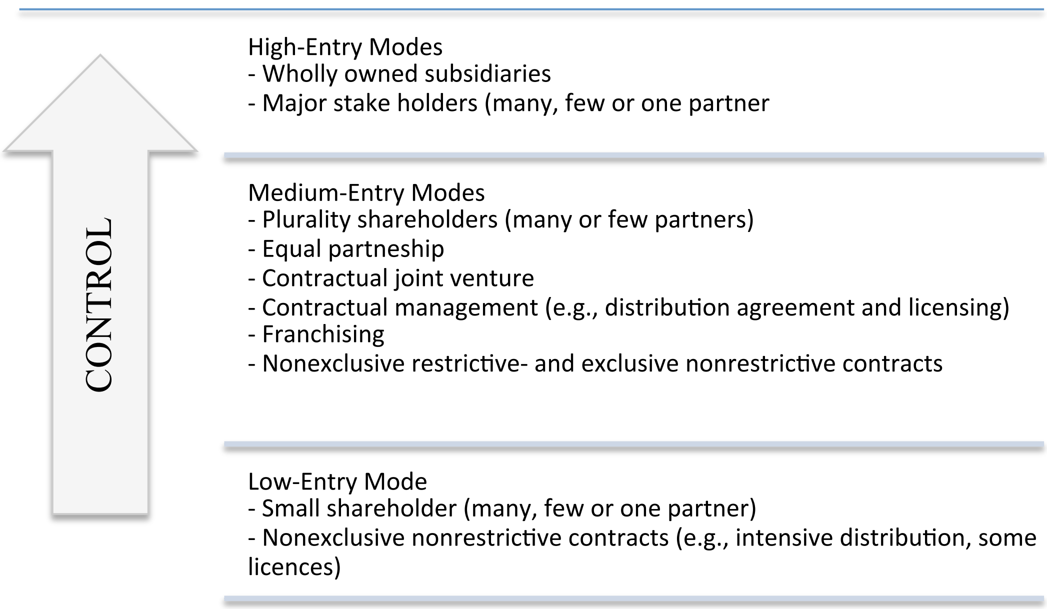


Figure 7. Entry modes and the level of control

The transaction cost theory of Anders & Gatigon (1986) indicates, that control gives tools to carry out the wanted strategies and to take required actions to maximize the return of investment, though, it also carries out higher cost, responsibility and commitment of recourses. The transaction cost approach hypothesis is a low-level entry mode. This mode is the most suitable until otherwise is proven. The decisions, on which of the entry mode levels should be chosen, are based on transaction specific assets, internal- and external uncertainty, and free-riding potential (Figure 8). (Anderson & Gatignon, 1986, 3; 6-8)

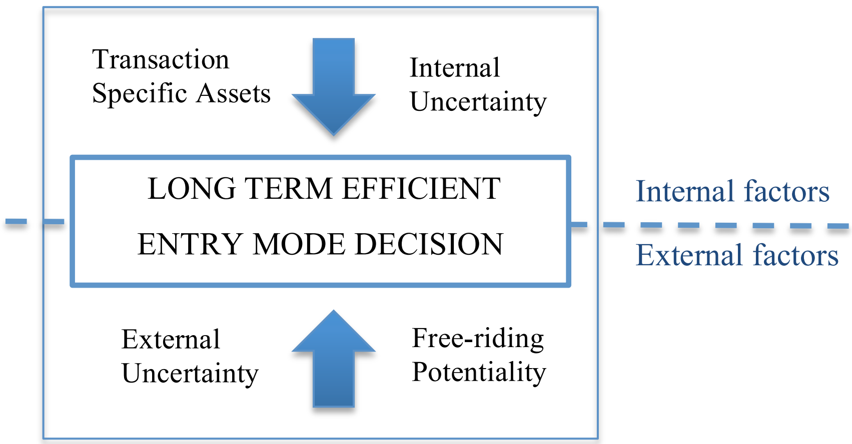


Figure 8. Foreign market entry mode decision making factors

The knowledge, complexity, customization and maturity of the asset that the company possesses should be examined in the transaction specific asset. The first propositions are that when proprietary knowledge is high and a product or process is poorly understood or complex, the higher level the entry mode should be used. In the other hand, a low entry mode level should be used for products that are not customized to the user or for more mature products. (Anderson & Gatignon, 1986, 8-13)

In the external uncertainty, the company's environment is examined. When the company stays in a low-entry mode, as an outsider, it is not exposed to the risks of uncertain external factors, for example political, economical and currency fluctuations. These factors are linked to the levels of transaction specific asset, as if it is high, the need of control becomes higher. (Anderson & Gatignon, 1986, 14-15)

The internal uncertainty examines the company's level of international experience. The higher the experience in the international field, the higher the entry level should be. An internationally experienced company is more willing to take control and make sophisticated decisions and risks to achieve higher return of investment. Other proposition presented by Anders & Gatignon (1986) is the sociocultural distance. If sociocultural distance is high, the low-entry modes should be preferred. If a high entry mode is selected in a case of entering significantly different socio culture, the company would need to highly train the staff that would in long term turn into specific assets for the company. In that scenario the control should be demanded. Also, if the foreign business community is large in the target market a low entry mode should be used since the availability of local personnel is greater. (Anderson & Gatignon, 1986, 15-19)

Finally, the free-riding potential proposes that the higher the value of the brand name, the higher the entry mode should be. This is how the company can maintain the control of it´s brand name so that it cannot be exploited by short term benefits by the other parties, or so that the other party would damage it. (Anderson & Gatignon, 1986, 20)

4 COMPANY'S INTERNAL READINESS

4.1 Analysis of the case company

The case company is Puerto Rican based family owned business. The case company was among the first ones to introduce tankless water heaters to the markets, maintaining it´s own production in Puerto Rico up to these days. The domestic markets are the main markets of the company, where it has gained the market leading position. Though, as Puerto Rico is counted to be an unincorporated territory of the United States, the case company has been spreading its activities towards the US mainland markets during the recent years.

United States has become the main export market for the company, mainly because of the markets proximity, ease of access for the case company, and because of its huge markets and opportunities for tankless water heaters. The case company exports also actively to the Caribbean islands, such as Virgin Islands, Barbados, Dominica and St. Maarten. Other minor export activities what the company has are towards Europe and Australia, as well as Canada in some occasions. The international activities represent almost 30% of the company's revenue.

Structure

The case company´s has a functional organization structure. The functional organization structure has different departments or portions of the company that work according it´s purpose to achieve the set goal (Writing, 2013). Though, as the case company is a small family owned business, the boundaries between the departments are not always that clear as some departments work with multiple markets and tasks that cross the department's primary functions (Figure 9).

The figure 9 presents the organizational structure of the case company. The company has been passed through generations in the family, leaving the ownership of it within it. "The company is hierarchically organized, and it is divided between the local market and international sales" (Marketing & Exports Manager, 2013). Though, departments like purchasing, marketing and accounting work tightly with both operational areas, as the size of the company does not allow a full separation of them to only one market or operational area. The international operations consists two departments that are only dedicated to exports- and customer service department. The customer service department of the international operations is located separately in the United States, while the local customer service stays in Puerto Rico. Other domestic functions are sales and other operations and production.

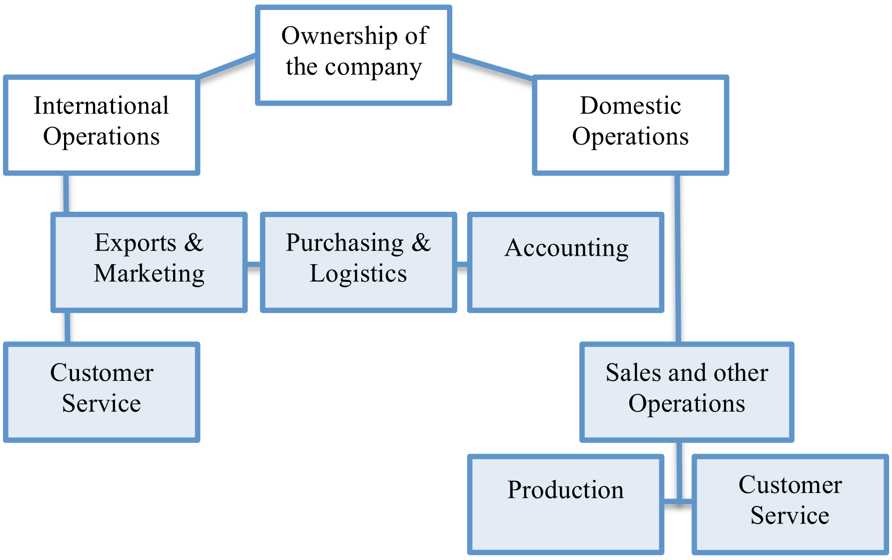


Figure 9. Organizational structure of the case company

Strategy

The goal of the company is to provide high quality and affordable energy efficient water heater solutions for the consumers worldwide. The company's strategy is to maintain the market leading position in the local markets, by tightening the relationships in them, and expand the sales internationally by obtaining new sales channels and markets for the products (Marketing & Exports Manager, 2013). The competitive advantage is gained through positioning of the company as a brand that has long traditional roots in affordable energy efficient product development.

Systems

The company uses a variety of different types of systems in day-to-day bases. This variety includes HR, accounting, client management, logistical control, electronic data interface (EDI) and sales analyzing software's. The main communication tool between the staff is email and telephone. Also a voice over IP software is used to obtain quicker methods to communicate between the countries where the personnel of the company are located. According the Marketing & Exports Manager (2013), the different systems are evaluated periodically and decisions are made according the results obtained from them.

Skills

The case company is one of the pioneers in the tankless water heater industry. The experience in the industry is one of the case company's main core competences, as one of the product lines is produced in its facilities since the foundation of the company. For this reason, the domestic market experience is high and the company has the market leader position in it. Though, the international experience doesn´t have as long roots as the domestic one, as the commitment to the exports activities begun increasing only few years' back. Still, the skills to act especially in the Caribbean and US markets are growing rapidly as more experience is gained through better positioning in the markets. The case company´s individual skill level has quite wide variety through the personnel's demographic diversity. The company´s personnel have different types of backgrounds, nationalities and age groups, bringing variety of individual skills for the company's use.

Staff

The staff of the case company is multicultural. It consists personnel from North America, South-America, Caribbean and Europe, which why the staff has the ability to speak multiple languages. In 2013, the company employed 15 persons, and a number of fulltime or part time services from independent professionals. With the relatively small employment number, the company is still able to handle the whole value chain, as it has its own local production, marketing and sales, manages the inbound- and outbound logistics, as well as customer support (Marketing & Exports Manager, 2013).

Style

The prevailing company culture has differences between the operational areas, depending also on the management style within them. The local market operations are managed hierarchically, which is more typical way for family owned business leaving the control of the actions and decisions centralized to the top level of the organogram. In the international operations, the prevailing culture is slightly more horizontal, giving more space for decision making by different actors. Though in overall, as the company is a small family owned business, the company culture and management style is open and interactive, giving the employees the opportunity to influence on the operations. (Marketing & Exports Manager, 2013)

Shared Values

The main values of the company are commitment, product quality and excellent service (Marketing & Exports Manager, 2013). These values can be seen especially through the local customer service that the company provides as the only one in the local market. The company has dedicated to develop its services in the water heating industry.

4.2 Product

The case company has dedicated to manufacturing and distributing tankless water heaters. Tankless water heater can be referred to on demand water heater or instantaneous water heater as it heats the water only when used. This how, the water heater does not need to have water storage. When compared to the traditional tank water heater, the energy consumption of tankless water can be up to 60% more energy efficient as there is no need for stand-by water heating and the energy losses are minimalized, as the hot water has not been storaged. The tankless water heater works normally by liquid propane- or natural gas, electricity or combination of these. (Energy.gov, 2012)

The case company has three different tankless water heater product lines: electric, gas and shower tankless water heaters. These tankless water heaters are for the whole house water heating use, expect the shower product line that is for one point use only. Because of their maximum flow capacity, the products are limited more to the residential use. The shower product line is the only one that is produced by the case company in Puerto Rico. The other product lines are imported from different countries in Asia, and distributed by the case company to supply the need of different markets. Though in this study, the focus will be in the gas- and electric product lines.

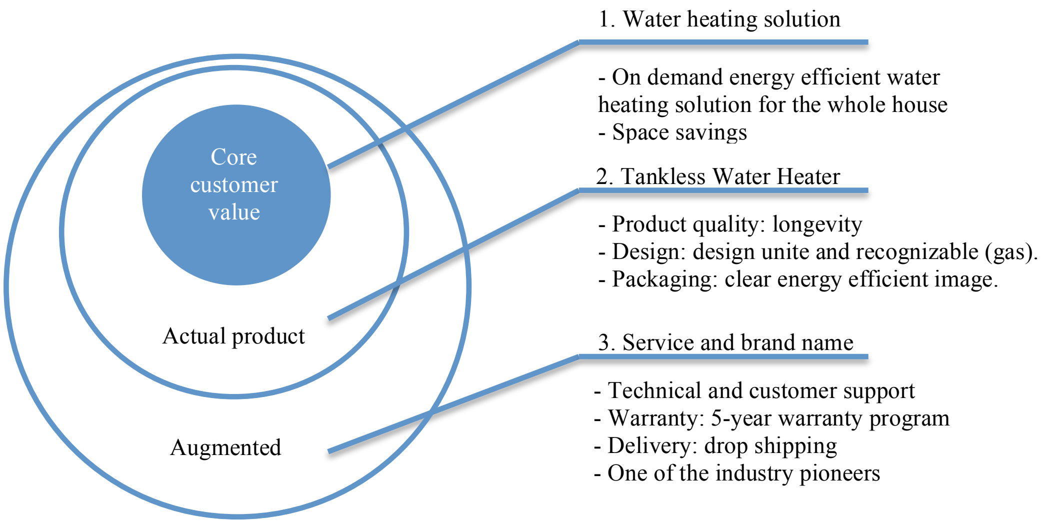


Figure 10. Analysis of the gas and electric product-lines

In the Figure 10, a general analysis of the gas- and electric tankless water heaters product qualities is presented. The product analysis contains different layers: core customer value, actual product, and augmented products. The core customer value represents the main function of the unit: on demand energy efficient water heating solution for the whole house purpose. The energy efficiency is especially something what the customers search from such products, as the on demand technology can bring significant savings in energy consumption when compared to tank water heaters. Also, the products can save in, as tankless water heaters do not have a tank, which reduces its size significantly.

The products are considered to be longevity products, which is also guaranteed by a warranty program. The design of the product lines varies between them as the manufacturer changes between the product lines. Though, for the bigger electric units, and the gas units the design is unite. The products packaging and the external material brings up in the design the energy efficiency, environment friendliness and the company’s experience in the industry. What is lacking from the majority of the products, when comparing to the biggest brands in the industry, are the additional features, unique design, and certifications. Only few units in the electric product line have certifications for North American and European markets. The units do not have any additional features that would separate them from the competence clearly, and the lack of certifications limits the possibility to enter certain markets.

One of the core augmented product values is the case company's brand name, as the company was one of the pioneers to introduce tankless water heaters to the markets. The products have also a warranty program of 5-years, covering labor and parts for the first year, and parts for the rest of the years of the warranty. The after sales service includes technical and customer support. The delivery of the products is done mainly through drop shipping straight to the end customer's address.

5 MARKET OPPORTUNITY ANALYZE

5.1 PESTEL -analyze

In the following sub chapters, the country will be examined by using the PESTEL –analysis. The analysis consist political, economic, socio-cultural, environment and legal aspects, which are used to give an overall image of Canada as a place to do business.

Canada is located in North America, shearing the worlds largest land border with United States, it´s only neighbor country. The national capital of Canada is Ottawa. The surrounding sea areas are Atlantic Ocean, Pacific Ocean and Arctic Ocean. Canada spreads to six different time zones, including ten provinces and three territories. The provinces and territories are presented in the Appendix 3. (Central Intelligence Agency, 2013)

5.1.1 Political

Canada is parliamentary demography through the constitution from 1867. It is also a constitutional monarchy, as even though governmental decisions are done by the name of the Crown, they are passed through the authority of the Canadian people. The parliament is formed by three actors: the Crown, the Senate and the House of Commons. Though, as Canada is a federal state, the responsibility of law making is shared among one federal, ten provincial and three territorial governments. (Parliament of Canada, 2013) There are multiple political parties that plays significant role in the Canadian parliamentary system, though the conservative party won the last election on 2011, by 39.6% of the votes. (Central Intelligence Agency, 2013)

One of the major domestic political issues that occurred at the beginning of the millennium, with the province of Quebec and it´s requirements for independence, has been settled, as Quebec was granted unique rights and a symbolic status as a "nation" in the united Canada (BBC, 2012). Nowadays, Canadian stable and progressive political environment has been recognized globally. According United Nations (2013), the Canadian preserve level of natural and social wealth has gained it the number one ranking in the Human Development Index of United Nations Development Program. The stability of the country is recognized also in the Transparency International Index (2012), as Canada was ranked as the 9^{th} least corrupted country in the public sector.

Canada is part of multiple international agreements and co-operation agreements, such as the G-8, G-20, WTO, NATO and NAFTA. (Central Intelligence Agency, 2013) Canada possess a good number of free trade agreements with different countries (Table 1). The most significant one is the North American Free Trade Agreement (NAFTA). This agreement has liberated the trade between Canada, United States and Mexico, and so on, playing a significant role in the development of Canada. The NAFTA agreement requires that the goods exported under it, have to be made and shipped from a NAFTA country in order to be under the NAFTA agreement. Also, a good number of Foreign Investment Promotion and Protection agreements, as well as other types of agreements and initiatives have been formed to develop international relations of Canada. (Foreign Affairs and International Trade Canada, 2013)

Table 1. Free trade agreements of Canada (Collected from: Foreign Affairs and International Trade Canada, 2013)

Free Trade Agreements of Canada

Free Trade Agreements in force	
Canada – Jordan	2012
Canada – Colombia	2011
Canada – Peru	2009
Canada – European Free Trade Association (EFTA)	2009
Canada – Costa Rica	2002
Canada - Chile	1997
Canada - Israel	1997
North American Free Trade Agreement (NAFTA)	1994
Concluded Negotiations	
Canada – Honduras	2011
Canada - Panama	2010

The Canadian customs tariff codes are based on Harmonized Commodity Description and Coding System (HS) of the World's Customs Organization (WCO). The case company's gas and electric water heater lines HS codes are 8419.11.00 (instantaneous gas water heaters) and 8516.10.10 (electric water heaters of a kind used for domestic purposes). As the products country of origin of is in Asia, not a NAFTA country, the MFN tariff (Most Favored Nation Tariff) applies. The MSN tariff for the 8419.11.00 HS code is 6.5%, but for the 8516.10.10 HS code it is 0% (Free). In addition to the tariff fees, the importer has to pay 5% of commercial taxation. The documents required by customs are the Canada Customs Invoice and the NAFTA Invoice Certificate. These documents present fhe products country of origin. (Border Information Service Representative, 2013)

The relationship between Canada and United States are close and highly important, not just geographically and historically, but also economically, defensively, socio-culturally and politically. However, there have been some significant differences in the foreign policy between these two countries, since Canada is leaning more towards international acceptance in foreign policy. (Embassy of Finland, Ottawa, 2012) The United States and Canada have also a tax treaty for income and capital, signed in 1983. This treaty does not include the territories of the United States, such as Puerto Rico and Virgin Islands. (Department of Finances, 2008)

The Canadian Revenue Agency (CRA) is responsible for the organization and administration of the tax programs as well as the delivery of economical and social benefits. The CRA handles the personal income taxation, goods and services taxation (GST), as well as harmonized sales tax (HST) in all provinces except Quebec. In Quebec the Revenue Québec administrates the GST or HST collection. The GST is a tax that applies to most of the goods and services. However, the HST that is used by some provinces combines the GST with their provincial taxation. The GST or HST rate varies between provinces from 5% to 15% (Table 2.). (Canada Revenue Agency, 2013)

Table 2. GST/HST Rates by provinces (Collected from: Canada Revenue Agency, 2013)

GST/ HST Rates by Provinces

Province/ Territory	GST/HST Rate
Alberta	5%
British Columbia	12%
Manitoba	5%
New Brunswick	13%
Newfoundland and Labrador	13%
North West Territories	5%
Nova Scotia	15%
Nunavut	5%
Ontario	13%
Prince Edward Island	5%
Saskatchewan	5%
Yukon	5%

Goods that are imported to Canada are subject to GST or HST taxation (federal part). This does not apply to goods that are listed as non-taxable ones. The goods imported to Canada will have to be reported to the Canada Border Service Agency (CBSA) for inspections, unless they are imported by common carrier, which would handle the reporting in such cases (e. g. United States Postal Service). If the company is not registered under the GST or HST taxation, the importer needs to pay the taxation, cannot charge the Canadian customer on the GST or HST part, and cannot claim the input tax credit (ITC). If the importer is non-resident, but registered under the GST or HST, the GST or HST is paid when imported, the possibility to claim ITC exists, and the customer is charged of the GST or HST on the sale price. (Canada Revenue Agency, 2009)

The personal income taxation varies in the federal level between 15-29% depending on the income level. In the provincial or territorial level, the income taxation varies from 4% to 17%, depending on the province or territory, as well as the income level. For corporate taxation, the federal tax rate is 15%, but 11% for businesses that have successfully claimed small business deduction. In most of the provinces or territories, corporate taxation is charged according the “lower rate” or “higher rate”, depending if the business is eligible for the small business deduction. This provincial or territorial taxation rate varies from 1% to 16%. (Canada Revenue Agency, 2013)

5.1.2 Economical

The Canadian economy has grown significantly since the World War II in manufacturing, mining and service sectors, making it primarily industrial an urban economy (Central intelligence Agent, 2012). In 2011, the produced goods industry represented one of third, and the service’s industry produced more than two thirds of the country’s GDP (Industry Canada, 2011). Since the growth after the wars, the country has been among the largest economies of the world, as well as being one of the countries that has the highest level of trade freedom in the world. The Canadian economy can be described to be an innovation-driven economy (Schwap, K. & Sala-i-Martín, X, 2012).

In 2011, the GDP of Canada was 1.7 trillion CAD (1.67 trillion USD), giving a positive growth of 2.6% compared to the previous year (Statistics Canada, 2012a). The labor force of Canada is 18.7 million, but it has an unemployment rate of 7.5% (Central intelligence Agent, 2012). When measuring the GDP per capita based on purchasing power parity rates (PPP), Canada ranked 23rd in the world, with $40,370 in 2011 (The World Bank, 2013b).

The currency of Canada is Canadian dollar (CAD). The most popular exchange rate of the Canadian dollar is the U.S. dollar (USD) and CAD rate. In 2012, CAD reached its lowest of 0.9599 on June and the highest value of 1.0299 on September when compared to the USD. (Bank of Canada, 2013) In 2012, the Canadian dollar was the seventh most traded currency in the world (The Richest, 2012). The Prime interest rate was 3% at the end of 2012, staying the same since the end of 2010.

The annual growth of the inflation rate measured by the consumer price index (CPI) in 2011 was 2.9%, while the average of the other countries in the world was 4.9% (The World Bank, 2013a). However, in 2012 the inflation rate reached the lowest annual increase since 2009, counting 1.5%. The average annual inflation rate increase in Canada has been from 1998 a good level of 1.8%. (Isfeld, 2013)

Table 3. Key figures of the Canadian economy (Collected from: Statistics Canada, 2012a; Central intelligence Agent, 2012; The World Bank, 2013b; Isfeld, 2013)

Key Figures of the Canadian Economy

Currency	Canadian Dollar (CAD)
GDP	1.7 Trillion CAD
GDP per Capita (PPP)	40,370 CAD
Labor force	18.7 million
Unemployment rate	7.5%
Interest rate (Prime)	3%
Inflation rate by CPI	1.5%

The Canadian economy dependents of exports, as it represents one third of the GDP. The relationship with the United States plays a significant role as they represents 75% of the total exports and almost half of the total imports of Canada. Other significant trade partners are United Kingdom, China and Mexico (Table 4). (Statistics Canada, 2013) The most exported goods are: energy products, metal and non-metal mineral products, and motor vehicles and parts. The energy products are the most important exported goods, representing almost 23% of the total exports in 2012. (Statistics Canada, 2013a) In the other hand, the most imported goods in 2012 were consumer goods, counting almost 20% of the total imports. Other important import goods are motor vehicles and parts, and electrical equipment's parts. (Statistics Canada, 2013b)

Table 4. The Most important international trade partners of Canada (Collected from: Industry Canada, 2013)

The Most Important International Trade Partners of Canada

Largest Exports Partners		Largest Import Partners	
United States	74%	United States	49.5%
United Kingdom	4.2%	China	10.8%
China	3.8%	Mexico	5.5%
Japan	2.4%	Japan	2.9%
Mexico	1.2%	Germany	2.8%

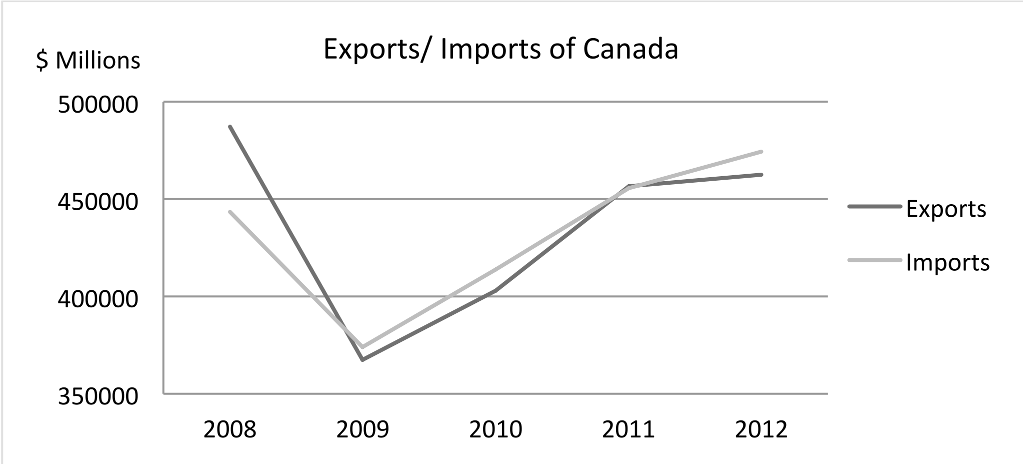


Figure 11. Exports/ imports of Canada (Collected from: Statistics Canada, 2013a; Statistics Canada, 2013b)

The trade balance of Canada is shown in the Figure 11. Since 2009, the trade balance has been negative with the exception of slightly positive result in 2011. Though in 2012, the trade balance dropped to negative of 12,063 million CAD (11.869 million USD), as exports represented a total of 462,455 million CAD (433,034 million USD), and imports a total of 474,519 million CAD (466,901 million USD. The import and export result dropped significantly in 2009, as a result of the global recession. (Statistics Canada, 2013a; Statistics Canada, 2013b)

The recession has shown especially through the decrease of the trade with the United States, which plays a significant role in the Canadian international trade balance (Table 4). However, through the strong financial sector and currency, the Canadian economy has managed the latest economic crisis well and has managed to keep its economy more stable than most of the countries. (Embassy of Finland, Ottawa, 2012) According the Global Competitiveness report 2012-2013, Canadian economy reached the rank of 14th, and so on, being among the most competitive countries of the world (Schwap & Sala-i-Martín, 2012).

In 2010, over 18% of the Canadian population had an annual income of more than 60,000 CAD (59,038 USD), but at the same time, almost 39% of the population had an income of less than 20,000 CAD (19,679 USD) (Statistics Canada, 2012b). The high and low income inequity is quite high in Canada, and it has kept on growing during the last years (The Conference Board of Canada, 2013). Also, the household's depth ration in Canada reached a new high in 2012. The household's depth to disposable rate increased from the previous reported period of 161.8% to 163.4%. This has caused a more strict policy when granting mortgages, as the level is reached the same heights that the U.S. housing bubble had in 2007 (depth ratio of 170%). (CBC News, 2012a)

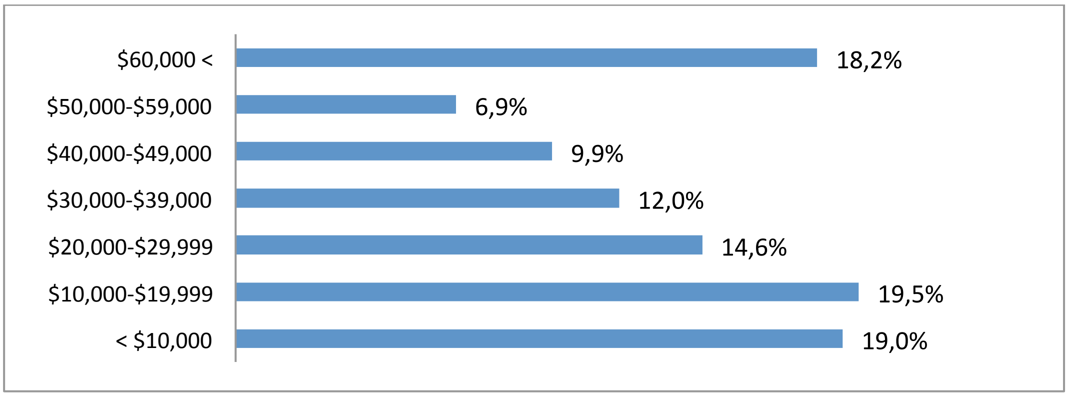


Figure 12. Distribution of annual total income of individuals, 2010 (Collected from: Statistics Canada, 2012b)

5.1.3 Socio-Cultural

The Canadian culture was formed by two dominant nations of the time: British and French, leaving behind strong Anglo and Franco roots. Though the significance of the aboriginals have been also notable as the cultures have been noticed and preserved better than in the majority of the colonies in the world. Later on the immigration from Europe, Asia and Africa made the already multicultural and bilingual environment richer, with vast population of people from different cultures. The dominant culture is the British culture after the colonial war against the French, but French influence is still in a significant role especially in the east coast and in the province of Quebec. Other great influence to the Canadian culture has been United States for their special political and trade relationship as well as the closeness and immigration between the countries. (Countries and Their Cultures, 2013)

The population of Canada reached almost 33.5 million habitants in 2011. It has been increasing steadily since 2001, reaching in 10 years a growth of 10.7%. The majority of the population (86% of the total national population) has been concentrated to four provinces: Ontario, Quebec, British Columbia and Alberta.

Most notable population growth compared to the previous year has been in Alberta (10.8%) and British Columbia (7%). (Statistics Canada, 2013c) However, the highest populated provinces are not that highly populated when measured by density, as the provinces cover huge territories, which is why Canada can be found among the lowest populated countries by it´s size in the world (Central Intelligence Agency, 2012). The highest populated cities in Canada are Toronto (Ontario), Montreal (Quebec) and Calgary (Alberta). (Statistics Canada, 2013c)

The average age of the Canadians is 40.6 years. As many other Western Society, the Canadian population is facing future difficulties with the aging population (the baby boomers), as the birth rate is low (1.7 per family) and the amount of immigrant is not high enough to combat the labor shortage. (Graveland, 2012) However, Canada is one of the countries that accept the most immigrants in the world. In 2010, Canada received over 280,000 immigrants, even though the immigration policy is quite strict. Between the years 2001 and 2006, the population growth of the immigrants was 27% when the nations population growth only reached 5% (Figure 13). The Canadian population consists of over 200 ethnic groups, the British and North American origins being the dominant ones. (Embassy of Finland, Ottawa, 2012)

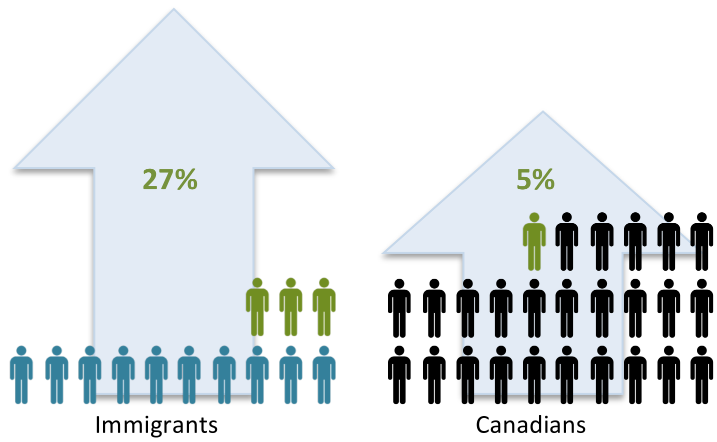


Figure 13. Population growth between Canadians and immigrants, 2001 - 2006

Canada has two official languages: English and French. Both of the languages have an official status, meaning that the public services are legally guaranteed for both languages. The majority (58%) of the population speaks English as mother language, but the French speaking population has a significant status (22%), especially in the province of Quebec. Multi-linguistics are only fifth of the population, as 68% of the population speaks only English, and 13% speaks only French. Though, there are over 200 languages that are spoken in the households because of the large amount of immigration in the country. (Embassy of Finland, Ottawa, 2012)

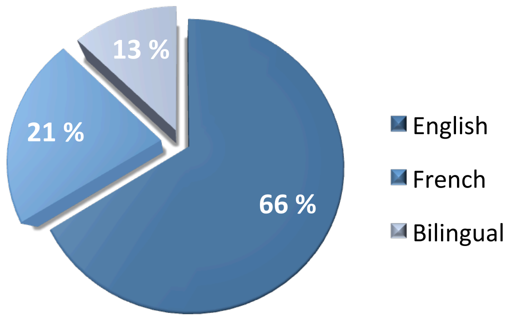


Figure 14. Comparison of English and French language status in Canada
(Collected from: Embassy of Finland, Ottawa, 2012)

When measured internationally, the education level of Canada is high. From the age group of 25-64, 88% have earned the equivalent of high-school degree, and reaching so higher rate than the average of the OECD countries (74%). In 2006, 24% had accomplished University level degree. Through the countries reforms on the educational system since the beginning of the millennium and the well-organized immigration implementation, the percentage of people who have accomplished University level degree is even higher among the immigrants (32%). (OECD better Life index, 2013)

When examining the Canadian culture through the well-known Geert Hofstede cultural dimensions theory, the Canadian culture, even though can be counted as multilateral one, is a monochromic culture. Individualism and egalitarianism are part of the culture, as hierarchy and self-reliant are qualities that are expected in personal life as well as business world. Expertise of group or individual is relied on, and high performances in work and social life are pursuit, maintaining a balance between them. The Canadian culture can be described also as short-term oriented culture, as traditions, social obligations and quick results are expected.

The freedom of expression, openness for innovations and new technologies is also higher in the Canadian culture. (The Hofsted Centre, 2013)

The Canadian values are freedom, social justice and respect for cultural differences. Equality, politeness and peacefulness are how the Canadians can be recognized in the world. (Durham Immigration Portal, 2010) The cultural differences are inevitable between the regions because of the size of the country. Each region has its own sense of identity and cultural background. One of the most notable differences can be found from Quebec through the French influence (French-Canadians). (Communicaid, 2009)

There is no official religion in Canada. The majority of the people belong to the Christian churches (71%), the Catholic religion being the dominant one. Because of the high immigration rate, in the country exists a large amount of different religions and cults. (Embassy of Finland, Ottawa, 2012)

5.1.4 Technological

The Canadian infrastructure can be found to be in a good shape, even though the country covers the 2nd largest area in the world (3.8 million Sq. miles). According the Logistic Performance Index (LPI), the country ranks 14th when comparing the customs, infrastructure and quality of logistical and services between the worlds countries (Table 5). The highest score that Canada achieved in the LPI was timeliness, ranking 3th in that category. When measured the logistical functions of Canada in time and cost in supply chains from port, airport or land of the supplier from largest commercial centers, the lead-time was two days when the average cost was 727 CAD (716 USD) for 40-foot dry container or semi-trailer including all the fees and charges (Table 6). (Arvis, Mustra, Ojala, Shepher & Saslavsky, 2012)

Table 5. Canada in logistic performance index, 2012 (Modified from: Arvis, Mustra, Ojalaa, Shepher & Saslavsky, 2012)

Canada in Logistic Performance Index 2012

	LPI rank			Customs		Infrastructure		International shipments		Logistics quality and competence		Tracking and tracing		Timeliness	
	Rank	Lower bound	Upper bound	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Singapore	1	1	2	1	4.10	2	4.15	2	3.99	6	4.07	6	4.07	1	4.39
United States	9	8	11	13	3.67	4	4.14	17	3.56	10	3.96	3	4.11	8	4.21
Canada	14	8	17	17	3.58	12	3.99	18	3.55	13	3.85	14	3.86	3	4.31

Table 6. Time and cost in exports and imports (Modified from: Arvis, Mustra, Ojala, Shepher & Saslavsky, 2012)

Time and Cost in Exports and Imports

	Port or airport supply chain[a]			Land supply chain[b]		
	Distance[d] (kilometers)	Lead time (days)	Cost[e] (US$)	Distance (kilometers)	Lead time (days)	Cost[f] (US$)
Exports	233	2	646	325	2	734

	Port or airport supply chain[c]			Land supply chain[b]		
	Distance (kilometers)	Lead time (days)	Cost[e] (US$)	Distance (kilometers)	Lead time (days)	Cost[f] (US$)
Imports	152	2	736	389	2	748

CP- and CN Railway systems are the main providers of the railway network of Canada. These networks connect the northernmost areas of North America to the rest of the continent. In total, the railway system covers almost 29 thousand miles. (Gigerich, 2012) The road network of Canada covers in total almost 650 thousand miles of road. The expressway's portion of this is only 1.6% (10.5 thousand miles). (Central Intelligence Agency, 2013) Though, according the Canadian Infrastructure Report Card (2012), the overall grade of the road networks is "fair", as they show "general signs of deterioration and requires attention, with some elements exhibiting significant deficiencies". Under half of the roads fell in the report under the category of "good". (Canadian Infrastructure Report Card, 2012)

Communication infrastructure is also in a good shape. The telephone network covers over 45.5 million lines, with 60% of the lines being mobile lines. The usage of the Internet is also in a high level, as roughly 82% of the population uses Internet, with a 8.7 million Internet host network in the country. Two public TV- and four public radio broadcasters (CBC - Canadian Broadcasting Corporation) with the additional 150 TV stations and 2000 radio stations, reaches widely the Canadian population. (Central Intelligence Agency, 2013) The national post service provider is Canada Post Corporation (Canada Post, 2013)

There have been announced some improvements to be made to the infrastructure of Canada. The Government of Canada has committed to work with provinces, territories and other stakeholders to develop the Canadian infrastructure in a "Building Canada Plan" that was launched in 2007. This seven-year long-term plan has been budgeted to be 33 billion CAD (32 billion CAD), funding thousands of projects, including bridge and road works and water and wastewater improvements. (Infrastructure Canada, 2013) Other major project created is the Canada´s Asia-Pacific Gateway and Corridor Initiative that seeks to connect better the Western Canada to the Asian markets through improved railway and highway routes. This Canadian Governments initiative was created to create "an excellent global supply chain between North America and Asia". (Gigerich, 2012)

5.1.5 Environment

The Canadian climate is partially in south subarctic and in north arctic climate. In the southern areas, closer to the border of United States where the most of the Canadian population live (approx. 90%), the climate changes between summer and winter from -13F (-25C) to as hot as 95F (+35C). (CEC Network, 2003) The landscape of Canada consists, over two million lakes, rivers, swamps and mountains in the west and low lands in the east. It has been estimated that one seventh of the worlds fresh water, can be found from Canada. (Your Canada, 2013)

The temperature of the incoming water plays an important role in the use of tankless water heater, as it determines the temperature level from where the water heater has to rise temperature to the wanted out coming water temperature. The incoming water temperature changes between the regions, being colder in the northern parts than in south. Also, the water supply method affects to the incoming water temperature. Almost one third of the population of Canada depends on ground water (Appendix 4), though two third of these ground water users live in rural areas. Ground water is used for all daily needs as well as manufacturing and farming, as in many areas wells produce more reliable and less expensive water supply than obtained from near by lakes or rivers. (Environment Canada, 2011a) The incoming water to the households is normally supplied either through municipal main or well system (Natural Recourses Canada, 2012a). In the British Columbian province, the incoming water temperature was measured to be an average of 53F (11.9C) in the year 2011. (Capital Region District, 2011)

5.1.6 Legal

The legal system used in Canada is common law system, with the exception of the province of Quebec, where civil law is based on French civil code. The common law is based on judge’s decision according previous decisions that comes precedent for the similar cases in the future, but the civil law sees first the set Code of the law and then refers to previous decisions for consistency. (Department of Justice, 2013)

The Office of Consumers Affairs (OCA) provides consumers information of the consumer’s rights in the Canadian marketplace. These services covers automotive, environment, financial, health and safety, products and services, telecommunication as well as consumer protection legislations. The legislation is done by federal level, but also includes some special consumer laws in the provincial/territorial level. (Consumer Information, 2012) For example, packaged goods are due to packaging and labeling requirements, which includes requirements of the information of the product and company, as well as bilingual labeling requirements (Doing Business In Canada, 2013).

Almost 10% of the Canadians work federally and so on falls under the Canada Labor Code and Employment Equity Act, the rest of the Canadians work under provincial-regulated employment law (Labor, 2012). According Hum (2012), “Canadian law presumes the vulnerability of employees, and provides protections and minimum standards with which all employers must comply”, which differences from similar law practices in the United States. Though, the province of Quebec has it´s own specific requirements for companies to conduct business and also for labor laws. For example, the legislation for company acting in Canada includes language requirements for office use and different types of cultural programs. (Hum, 2012)

The Canadian Code Centre (CCC) handles in national level the different safety and constructions codes. For the tankless water heaters, the relevant codes are building-, plumbing- and fire codes, and electric- and gas codes (Figure 15). For building, plumbing and fire codes, any province or territory can set up their own standards. Though, for the most parts, the national model codes are adapted by every province or territory. This means that the certification and special standard requirements must be find out when entering a specific province or territory with a specific product, as there exists variation on the standards. Appendix 5 presents an example of special certifications and requirements in British Columbia. (Laporte, 2013) There exist two groups that have the responsibility of the building codes; Canadian Commission of Building and Fire Codes (CCBFC) and Provincial/Territorial Policy Advisory Committee on Codes (PTPACC). For electric- and gas codes, provinces and territories follow the national electrical- and gas code regulations. Canadian Electric Code (CEC) is a division under the influential body: Canadian Advisory Council on Electrical Safety (CACES). The set gas code is called CAN/CSA-B149 Series of Codes, and the influential body is Inter-provincial Gas Advisory Committee (IGAC). (UL LLC, 2013)

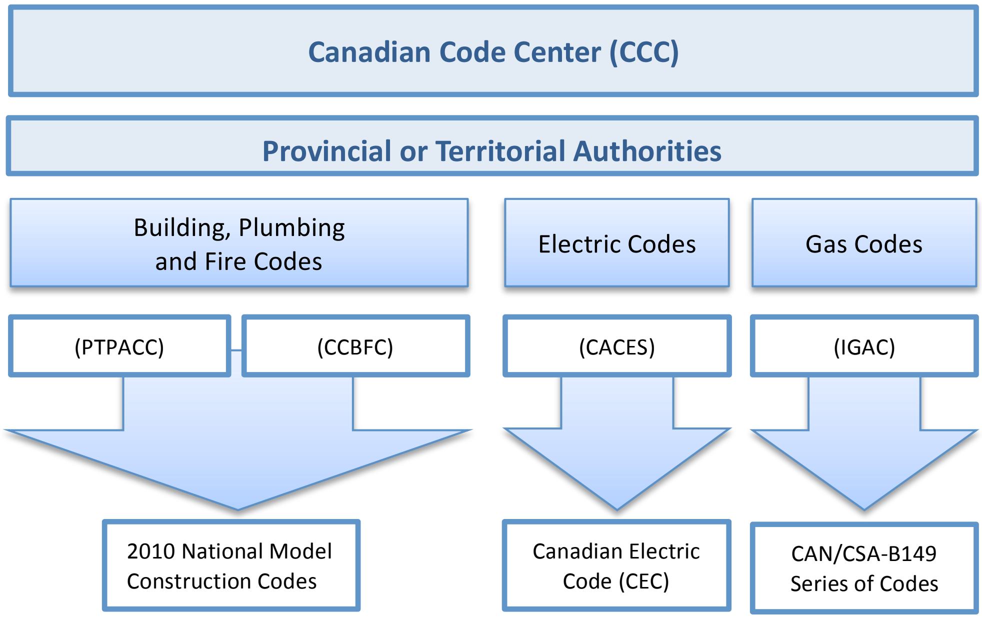


Figure 15. Code Authorities in Canada

According the standards set in the Canadian markets, some products need to be certified specifically, so that they meet the applicable national standards. In Canada, the Standards Council of Canada (SCC) is the accreditor of product certifications. In the case of tankless water heaters, there are different independent certificate providers that offer certifications for them in the Canadian markets: Canadian Standard Association (CSA), Underwriters Laboratories of Canada (ULC) and ETL provided by Intertek. (New Brunswick, 2013) CSA, UL and ETL posses multiple laboratories in North America, that test, inspects and certifies electric- and gas appliances according the SCC standards (CSA Group, 2013; ULC LLC, 2013; Intertek, 2013). IAPMO R&T is another certification agency accredited by the SCC, and so on by all the provinces and territories, as well as some big retail stores like Canadian Tire and Home Depot in Canada. However, the UPC of IAPMO R&T certification meets the National Plumbing Code of Canada standards, but “must be listed to the applicable American codes and standards in order to be considered in Canadian listings” (IAPMO R&T, 2013), and so on does not cover the basic requirements so efficiently as CSA, ETL or UL. The different types of certifications for Canadian markets can be seen from Appendix 6.

5.2 Market Size

In Canada exist 12.4 million households (Statistics Canada, 2007) that need to heat the cold incoming water from the municipal main or well for daily use (Natural Recourses Canada, 2012a). The type of water heater used in Canada can be storage, tankless, solar, pump or integrated space/ water heating system. Though, the far most common is storage water heater, or also known as tank water heater. (Natural Recourses Canada, 2011) From a household's expenditures, the "household furnishing and equipment" represented an average of 2.8% ($2,027) of the total households expenditures in 2011, making the total industry of household furnishing and equipment to be 25.9 billion CAD (25.1 billion USD) (Statistics Canada, 2013d).

The Canadian water heater markets belong under the industry of *Plumbing, Heating and Air-conditioning Equipment and Supplies Merchant Wholesaler and Distributor* in the North American Industry Classification System (NAICS 416120). According Industry Canada (2012a), the total operating revenues of the industry reached 10.3 billion CAD (10.1 billion USD) in 2010. As characteristic for the industry, the majority of the revenue came through sales, counting 98.5% of the total operating revenues. The average profit margin in the industry in 2010 reached 7%. (Industry Canada, 2012a)

The tankless water heaters sold in Canada, are mostly imported water heaters from United States, Japan, Mexico or South Korea (Figure 16). The international trade statistics of gas and electric tankless water heaters show that the total imports of the *Instantaneous Gas Water Heaters* (HS 8419.11.00) and *Electric Instantaneous or storage water heaters and immersion heaters* (HS 8516.10.10) were 118.9 CAD (117 million USD) in 2012. The biggest exporters of gas instantaneous water heaters to Canada were United States, Japan and South Korea. United States represented over half (59%) of the exports of the Electric instantaneous water heaters to Canada, followed by Mexico with one fourth of the imports. (Industry Canada, 2013)

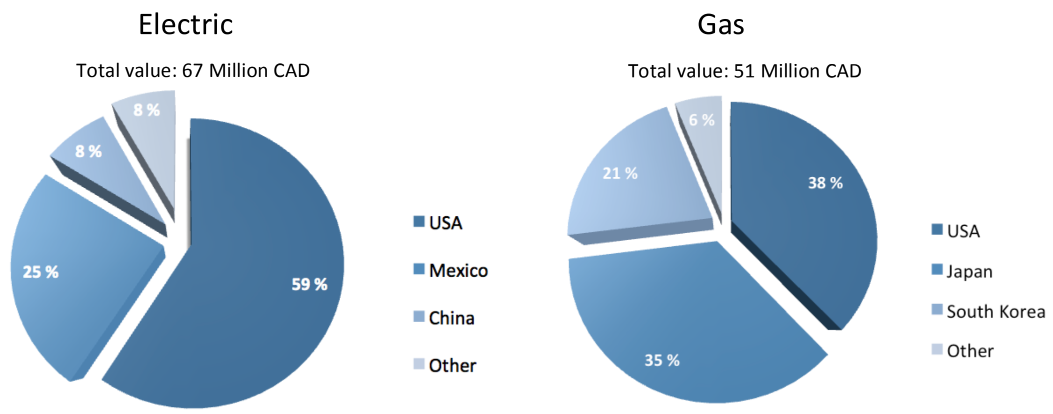


Figure 16. Imports of Gas- and Electric tankless water heaters by country (Collected from: Industry Canada, 2013)

In e-commerce, Canada is among the highest users of Internet in the world, as 79% (2010) of the population uses Internet. In 2009, Internet users who had placed electronic orders counted over 10.6 million persons, which represent 59% of the total Internet users. The total sales on e-commerce were 15.3 billion CAD (15 billion USD) in 2010, counting 113.8 million orders. The value of placed orders doubled during 2005 and 2009. (Parliament of Canada, 2012) In 2010, “Housewares” products, represented 12% of the total purchases, which include products such as water heaters, making the sales of “housewares” product in e-commerce 1.8 billion CAD (1.77 billion USD). Also, 45% of the users reported browsing housewares products on Internet, without placing an order for the product directly in the Internet. (Statistics Canada, 2010)

5.2.1 Projected growth

In general, the retail sales have been growing well since the recession in 2008-2009, increasing unexpectedly to record high in October-November, 2012. Since the last recession, the consumer spending has played an important role in the economic growth of Canada, but it has been predicted to decrease along the housing markets in 2013. (Thompson Reuters, 2013)

In the wholesale and distributor industry of plumbing, heating and air-conditioning, the operating revenues have been increasing annually 3.4%, and therefore the operating revenue of the industry climbed from 7.6 billion CAD to

10.3 billion CAD (10.1 billion USD) between 2001 and 2010. Though, between 2009 and 2010 the revenue decreased by 6.3% due to the recession. On the other hand, the expenses have been rising along the revenue, but not as strongly. The total annual growth of the expenses was 3.1%, having the highest growth in the labor expenses (annual increase of 4.3%). The net revenues increased positively of 8.1% annually, from 357.6 million CAD to 718.1 million CAD (706.6 million USD) in 2010. (Statistics Canada, 2012a) The Figure 17 will demonstrate the operating revenue and expenses in the plumbing, heating and air-conditioning wholesale industry between the years of 2001 and 2010.

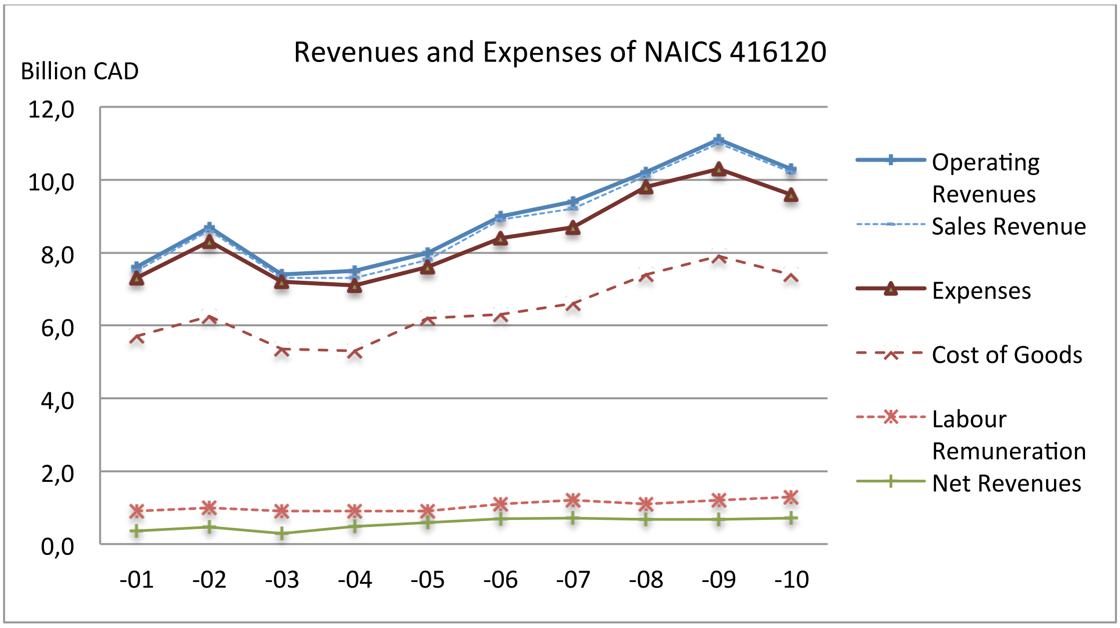


Figure 17. Revenues and Expenses of NAICS 416120 (Collected from: Statistics Canada, 2012a)

The demand of tankless water heaters in the Canadian markets has been growing in the past ten years. This can be seen in the international trade statistics of Instantaneous *Gas Water Heaters (Non-Electric)* and *Electric Instantaneous or storage water heaters and immersion heaters* (HS codes: 8419.11.00 and 8516.10.10)*, as* the imports of these products has been growing from 46.7 million CAD to 118.9 million CAD (117 million USD) since 2003 to 2012. (Industry Canada, 2013) The Figure 18 shows that the growth has been steady until the recession in 2009. Though, the imports recovered quickly and the next year the growth continued, giving a total growth of 253% since 2003 to 2012. The electric units have had better growth during the years when compared to the gas units, representing 56% of the total imports of these products.

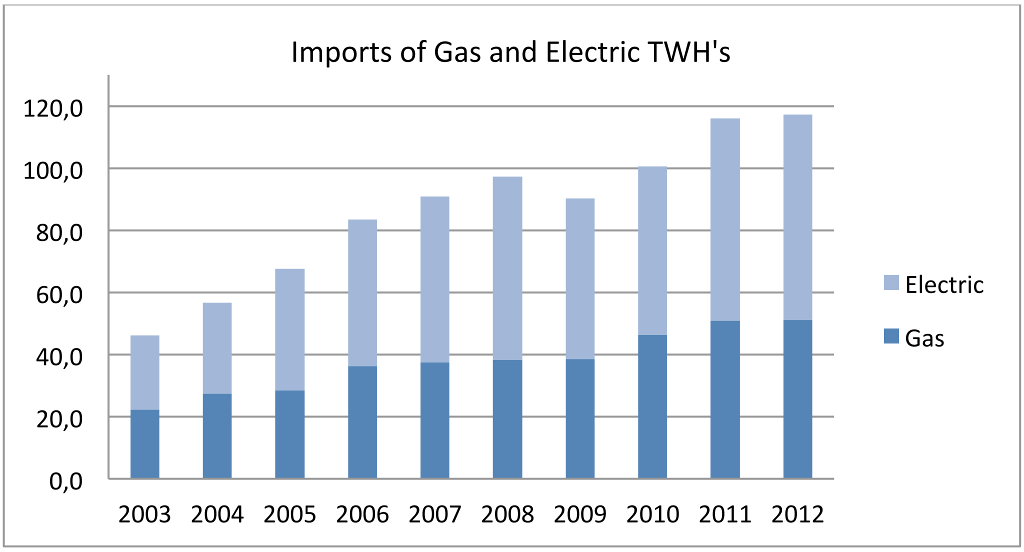


Figure 18. Imports of Gas and Electric tankless water heaters (Collected from: Industry Canada, 2013)

In the Canadian e-commerce market places, the sales are expected to grow faster than in United States already in the year 2016. Though, even though the predicted total sales in Canadian e-commerce would be growing faster than in the United States, the market overall size represents only 6.3% of the e-commerce market of United States. The amount of online buyers is also expected to grow for 2016 up to 80% of the total Internet users, representing 17.6 million online buyers. (eMarketer, 2012)

5.2.2 Trends

According to Natural Resources Canada (2012a), the number of households has grown by 36% between 1990 and 2009, mainly because of the population growth and the change in the family size and type, as there is living less people per household. Also, the living area has increased, which has lead to an increase of appliances per household and so on to an increase in the residential energy use. During the decade, 3.5 million households were added in Canada. (Natural Recourses Canada, 2012a)

Even though the total energy consumption per households has been growing, the household's water heating energy consumption has been decreasing. This is due to new and more efficient natural gas water heaters and to the declined number per person in households. The homeowners are gradually switching to cleaner energy sources, as there have become available higher efficiency rated gas- and electric appliances, and the prices of natural gas has dropped due to it´s availability. Natural gas and electricity represented 87% of the residential energy use on 2009. These changes in the use of energy source and to more energy efficient water heater types caused the household's water heating energy consumption to decrease by 26% between 1990 and 2009. However, as the number of households has grown significantly, it caused the overall energy use in water heating to increase slightly. (Natural Recourses Canada, 2012a)

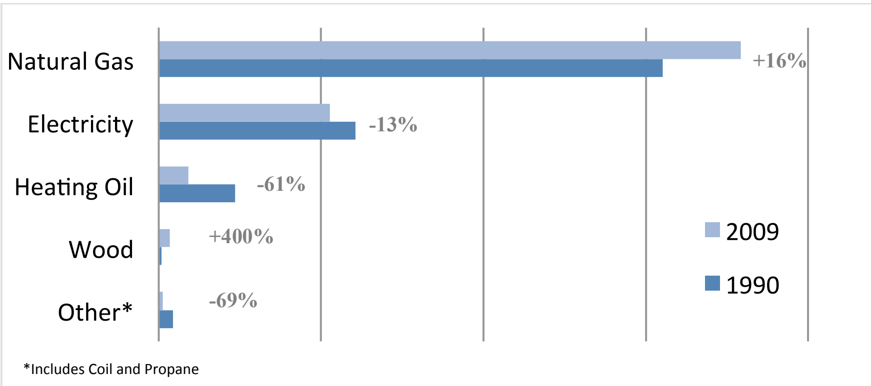


Figure 19. Water heating energy use trend in households by fuel type (Collected from: Natural Recourses Canada, 2012a)

Tankless water heaters use electricity, propane- or natural gas, which why the prices of such energies affect to the trend of sales of such appliances. Also, changes in the energy consumer prices can affect to the decision to search and choose more energy efficient solution that are available. According National Energy Board of Canada (2012), the price of electricity has been increasing in the last decade. The greatest increase has been in Alberta, Ontario and Maritimes. Though, when the price increase is adjusted to the inflation rate the increase is less significant, and in some provinces it has even decreased. The prices of liquid propane gas have been also increasing in the past decade due to high cost of production and oil prices. However, the prices of natural gas have been decreasing because of the emerging scale gas production that started in 2008. In overall, the prices of natural gas have been fluctuating over the decade based on seasonal effects and supply. The energy prices vary also according the location, mainly because of delivery and transportation costs. (National Energy Board, 2012)

In the recent years, the government and the provinces of Canada, have organized different types of grants for eco efficient home improvements. For example, *ecoENERGY* initiative was an investment of nearly 5 billion CAD (4.9 billion USD) by the government of Canada, to boost more energy efficient solution and renewable energy investigation and supplies. These grants included also water heaters, when changing from an old water heater to a new water heater up to 375 CAD (369 USD). The products had to be especially pre approved for the grant or have an *Energy Star* certificate. (Natural Recourses Canada, 2012b)

According the import figures of the tankless water heater products presented in the previous sub chapter (Figure 18), as well as the dropped energy use for water heating per household, the use of tankless water heaters in the Canadian households has increased during the past decade.

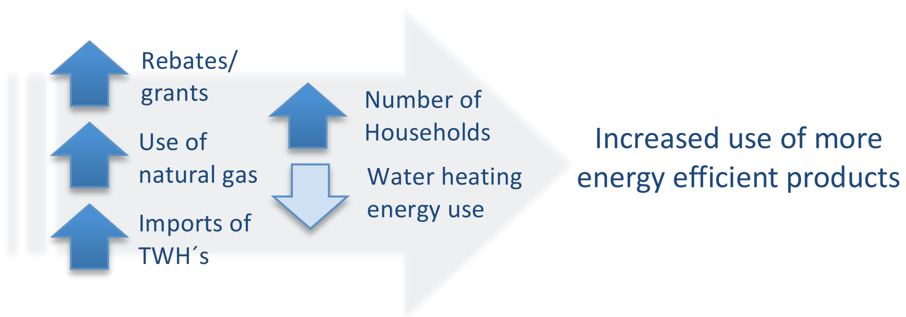


Figure 20. Markets trends

5.3 Customer

The Canadian consumers are accustomed to high consumption of water and energy in its use. Partially due to the cold climate, the water heating energy need from the total households energy consumption in 2009 was 17% (Natural Recourses Canada, 2012a). Also, the water consumption culture in Canada is significantly more consuming than in other developed countries. One explanation for this is that the water sources are accessible and the price of water per cubic meter is low. According Environment Canada (2011b), Canadians consumes water 343 litters per day (90.6 Gal/ day), which leaves it only behind to the United States in the consumption of water (382 litters/ day). (Environment Canada, 2011b)

According to Consumer Trends Report of the Canadian Office of Consumer Affairs (2004), the economical growth and more open markets have provided more reliable goods and services for the Canadians, and also increased the average income. However, as the services, products and technology are moving quicker, it has brought some difficulties for the consumers to keep up with it and learn to adapt it. This can be seen especially with the larger amount of senior population in Canada, which has it´s own consumption requirements and needs as well as challenges with the ability to use and process information. The Canadian consumer is in generally highly educated and sophisticated which makes the consumer behavior more efficient and affects to the earning level positively. (Consumer Trends Report, 2014)

Figure 21. Consumer trends

The family structure has also changed, the families are smaller and include more single parents and two-parent families in which both are working, causing time management issues in the complex market places. The consumers in Canada are also becoming more urban, as the majority of the population is living in the metropolitan centers. Averagely the more elder population lives in the rural and town areas, and the younger population in the metropolitan centers. The main metropolitan centers are called the “golden horse shoe”. It contains Ontario, Montreal, lower Mainland of British Columbia and the southern Vancouver Island, and Calgary-Edmond corridor. The rural and town areas are considered to be the Atlantic Provinces, Saskatchewan and the three Territories. In addition to the family and age structure, strong immigration and minorities are making the Canadian consumer even more diverse culturally. This brings it´s own challenges and opportunities in the market place, as the consumers are culturally and linguistically less homogenous. (Consumer Trends Report, 2014)

The personal income level of Canadian consumers has increased (Consumer Trends Report, 2014), but the income distribution has become more inequity, as the gap between the rich and the poor has widened during the recent years (The Conference Board of Canada, 2013). Also, the Canadian consumer’s debt-to-income ratio has been rising significantly in the recent years, reaching the new high of 163.4% in 2012 (CBC News, 2012a). The diversity in the consumer’s income levels and the high debt ratio, influences to the consumers buying patterns and purchasing decisions.

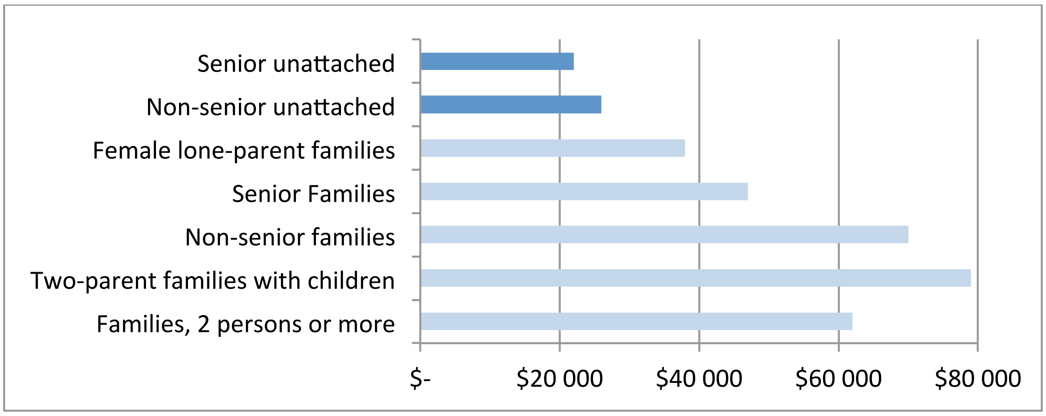


Figure 22. Median after tax income, by family type, 2010 (Collected from: Statistics Canada, 2012b)

The median income after taxes by family type is shown in the Figure 22. Two-parent families with children have the highest available income to spend, but also having high cost of living because of the size of the family. In the other hand, the unattached non-senior and senior families have the lowest income level, but also lower costs of living, as the size of the household is smaller. (Statistics Canada, 2012b)

The income level changes also between the provinces and territories. In the Figure 23 is shown the median total income by province in 2010. Northwest Territories Yukon and Alberta have the highest median income population, and New Brunswick, Newfoundland and Labrador, and Nunavut have the lowest median income population.

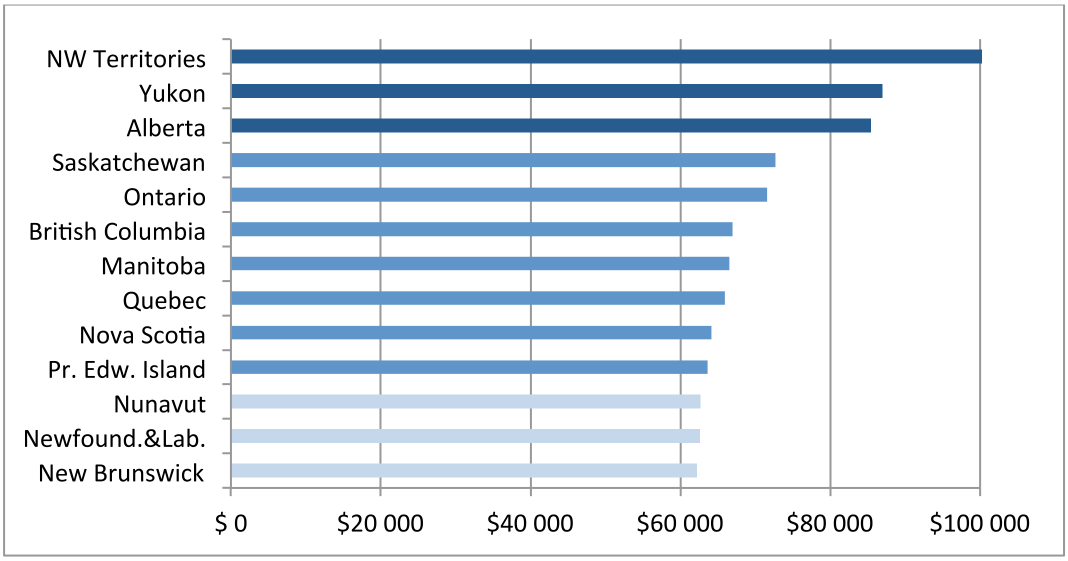


Figure 23. Median total income, by province and territory, 2010 (Collected from: Statistics Canada, 2012c)

When searching for a water heater, the Canadian consumers are looking for reliable quality products with long-term profitability (EMCO Plumbing & Heating Supplies, 2013; Importation Ecoboat, 2013; Porak Enterprises, 2013). Though, there are consumers that "prefers price over quality, but that market is generally for lower income families." (Hilliards Hot Water Solutions, 2013) Also, according Finpro (2010), "Canadian businesses and consumers requires good customer service and after sales support." To acquire water heater in Canada, a gas-fitting license as a proof that a licensed contractor will install the product is required. Alternatively, the consumer can apply for the permission and later on the cities authorities would verify the installation. (EMCO Plumbing & Heating Supplies, 2013) Also, the electrical connections are to be done by a certified electrician (Importation Ecoboat, 2013).

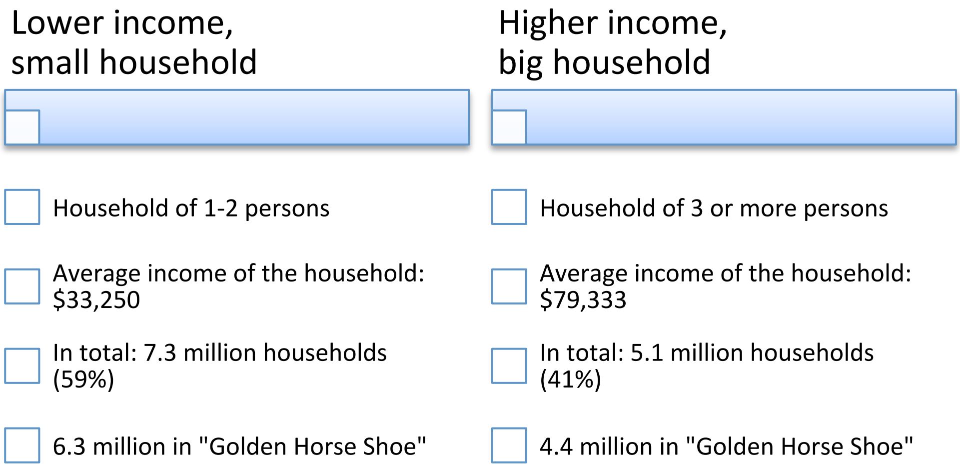
The most common sales channels that are used to purchase tankless water heaters are the big retail chains like Home Depot, Sears and Canadian Tire, as well as other home hardware stores. Also the popularity of e-commerce is increasing (Intel Marketing Inc, 2013; Importation Ecoboat, 2013), but the most popular way is to have the unit through immediate delivery (Hilliards Hot Water Solutions, 2013). Other sales method used in Ontario is through renting a water heater (EMCO Plumbing & Heating Supplies, 2013). This means that a company rents a modern water heater for the use of the consumer by monthly fee and provides speedy repair services if there would occur any problems with it. Though, Canada´s Competition Bureau has noticed tactics that are “denying the competition” in the industry, and so on in December 2012, was seeking penalties of 25 million CAD (24.6 million USD) for two companies that provide rental water heaters (CBC News, 2012b).

5.3.1 Segmentation

There are multiple factors that affects to the customers water heating needs. For tankless water heaters, one way to determine the need would be through the location (the climate, incoming water temperature etc.), household’s size (how many users to use the hot water) and the purpose of the use (for camping, cottage, whole house etc.). The other segmentation criteria that will be used besides the customer’s needs, is the available income of the customer that is based on the household size.

From the 12.4 million households in Canada, 26% are 1-person households, 33% are 2-person households and 41% include three or more person per household. The Canadian households has an average of 2.5 persons per household (Statistics Canada, 2007) The housing type varies from detached- and semi-detached houses to cottages, cabins and apartments in the cities. Many of the households have only one bath/ shower, few faucets and a washing machine. Though, as the household gets bigger, the need of baths/ showers can crow up to three, as well as the number of faucets, including multiple washing machines. (Hilliards Hot Water Solutions, 2013; Porak Enterprises, 2013) By location, 86% of the Canadian households are located in the provinces of Alberta, British Columbia, Ontario and Quebec; also called as the “Golden Horse Shoe”.

In the Figure 24, the possible customers are divided into two rough groups: the lower income and small households, and to the higher income and big households. This rough segmentation shows the household's size and income relation, as well as the amount and location of the household types. The households size has a clear relationship to the houses size and thus to hot water need. Together with the location, it can give some estimative of the size of the tankless water heater that such size household would need for it´s use. The available income of the household gives information of the goods price level that the household has the possibility to acquire.



* "Golden Horse Shoe": Alberta, British Columbia, Ontario and Quebec – 84% of the households

Figure 24. Segmentation by size and income level of the household

In addition to the household segmentation by size and income, other potential segmentation by the use and need of the customer could give an alternative approach to the markets. This segmentation has been divided into recreational vehicle (RV) users and campers, recreational house owners, and contractors. These customer segments has their special needs as the usage of the product changes from the regular whole house water heating need to less demanding use in many cases.

As one of the advantages of tankless water heater is its size and portability, the RV users and campers can especially benefit of those qualities, as the space is limited and the need to move the heater becomes relevant. The industry's size is 3 billion CAD (2.9 billion USD), and according a national ownership survey made in 2007, 14% of the households in Canada own an RV, and so on plays a significant role of the Canadian lifestyle. The industry attracts especially families and people under the age of 55-years. (Go Rving Canada, 2013)

The recreational housing type represents a different lifestyle. According the Recreational Report by Royal LePage (2012), the Canadians that owns or are considering to own a recreational house, thinks the housing type as an investment. Also, the eco friendliness is considered to be one of the key factors of a recreational house, as for example "15 per cent of residents from British Columbia rate 'eco-friendliness' as an important feature for a recreational home." (Recreational Report, 2012)

Also, as the technology and knowledge of the tankless water heaters long-term profitability spreads, it attracts more homebuilders and contractors. This is also due to new construction regulations and governmental support for more energy efficient products (EMCO Plumbing & Heating Supplies, 2013; Importation Ecoboat, 2013). The industry of construction (NAICS 23) has grown 3.2% annually since 2002, reaching in 2011 a total GDP of 76.5 billion CAD (75.2 billion USD). It has an important role especially in Alberta, British Columbia, Ontario and Quebec as they represent 88% of the establishments of the industry, concentrating the business on those provinces. (Industry Canada, 2012b)

5.4 Competitors

Canadian markets possess a lot of competition in the water heater markets. The markets consists massive global brands and a changing variety of smaller distributors of tankless water heaters. In the *Plumbing, Heating and Air-conditioning Equipment and Supplies Merchant Wholesaler and Distributor* industry (NAICS 416120) exists 982 incorporated businesses, with total revenue up to 5 million CAD (4.9 million USD) (Industry Canada, 2012c). Though these businesses are distributing and wholesaling mainly manufacturing brands like Bosch, Rinnai, Rheem, Noritz, Takagi, Paloma and Navien, which are the biggest competitors in the tankless water heater markets in Canada. These brands have brought their tankless water heaters to the Canadian water heater markets, but not all of them are represented as strong in the market. Bosch, Rinnai and Rheem are the brands that are widely known in Canada, and are also considered to be a higher quality products because of their prices, service and the brand name (Intel Marketing Inc., 2013). The Canadian water heater manufacturers, such as GSW, Gemco and John Wood, are only concentrated on tank water heaters.

A high variety of small and medium enterprises are distributing low cost tankless water heaters to the Canadian markets through e-commerce, from where the sale can be done without having the required certifications for the markets and the cost benefit ratio is higher. For example, e-commerce platforms such as Amazon.com and eBay carry tankless water heater distributors like Eccotemp, Titan, Excel, and Avidri in the Canadian platforms. (eBay.ca, 2013; Amazon.ca, 2013) Normally, these types of distributors do not have local warranty or service for the products, as they are imported to the country and do not possess the required certifications for sales inside the country. Though, brands like Bosch, Rinnai and Rheem are also widely sold through e-commerce platforms in Canada (eBay.ca, 2013; Amazon.ca, 2013), as the use of e-commerce has grown during the recent years. These biggest brands are also distributed widely in the big retail chains such as Sears. Canadian Tire and Home Depot in Canada (Intel Marketing Inc., 2013).

Nevertheless, the Canadian SMEs are not engaging the e-commerce opportunity in the same amount, as the demand would indicate. In 2008, 16% of the Canadian

SME businesses reported to sell through the Internet, but in 2011 the figure had grown only by 2%, even though the number of Canadian Internet users who placed electronic orders has grown significantly faster. The Canadian SMEs reported that the online sales represents 25% or less of their total sales. Few of the biggest obstacles to invest in e-commerce platforms for Canadian businesses are: costs and access to financing, Canada's low population density challenges for distributing and warehousing, and consumer protection that varies between provinces and territories. (Parliament of Canada, 2012) According to Scott Leblanc, Director of User Experience at SHOP.CA, the lack of Canadian e-commerce solutions has caused that more than two third of the online spenders money goes to United States (Jordan Markowski, 2013).

Bosch

Bosch Group is a global leading technology and service company with annual sales revenue of 51.5 billion EUR ($67 billion USD) in 2011, specializing in automotive and industrial technology as well as consumer goods and building technology. The company was established in 1886 in Stuttgart, Germany. It has roughly 350 subsidiaries in 60 countries over the world, with more than 300,000 associates globally. With the sales and service partners included, the company is present in roughly 150 countries. One of the consumer goods sectors where Bosch is highly active is Household's Appliances, where the water heating solutions such as tankless water heaters also belong. The sales revenues in 2011 in the sector represented 13 billion EUR (16.9 billion USD), with a steady growth of 4.4% to the previous year, mainly from through the Asian markets. (Bosch Annual Report, 2011)

Bosch started its Canadian operations in 1954, and has since grown significantly. The Canada division operations go under the name of Robert Bosch Inc., covering facilities in Ontario, Quebec and British Columbia. In Ontario, Bosch has two distribution centers with a total of 210,000 square feet. BSH Home Appliances Ltd. was established to Canada in 2007 and in the same year, Quebec had the opening of its Premium Canadian Showroom (L'Atelier BSH). In 2008, Bosch opened a center of 19,000 sq. ft. in British Columbia, with R&D, manufacturing, engineering and product management functions. The BSH Home Appliances Ltd.

had in 2010 more than 600 associates in Canada and represented sales of 690.2 million USD, which corresponds 4% of the total sales of the Bosch Home Appliances sector. (Bosch Canada, 2013)

The capacity of the products of Bosch varies from 3.3 GPM to 12.1 GPM in the gas tankless water heaters, and in the electric tankless water heaters, the capacity varies from 1.0 GPM to 4.0 GPM. Though, it has to be noted that the capacities that Bosch announces of it´s products are mainly not the maximum capacities, but values in what the unit can still give a proper increase to the incoming water temperature. The gas tankless units are widely certified, including certifications such as Energy Star, CSA, UL, GAMA, ASME and CEC, but the electric units possess only the required UL certification for the markets. The warranty of the gas units is limited up to 15-years warranty, and for the electric units, the warranty service is up to 10-years for the whole house series (Tronic 5000) and 5-years for the one point of use series (Tronic 3000). (Bosch Canada, 2013)

Table 7. Bosch certified gas products for Canada

<table>
<tr><th>Product</th><th>Max GPM</th><th>Certifications</th><th>Product example</th></tr>
<tr><td>Therm 330PN</td><td>3.3</td><td rowspan="8">Energy Star, CSA, UL, GAMA, ASME, CEC</td><td rowspan="8">
Bosch C 1210 ES</td></tr>
<tr><td>Therm 520PN/HN</td><td>5.2</td></tr>
<tr><td>Therm 660EFO/EF</td><td>6.6</td></tr>
<tr><td>Therm 830ES</td><td>8.3</td></tr>
<tr><td>Therm 940ESO</td><td>9.4</td></tr>
<tr><td>Therm C 950ES</td><td>9.5</td></tr>
<tr><td>Therm C 1050</td><td>10.5</td></tr>
<tr><td>Therm C 1210 ES</td><td>12.1</td></tr>
<tr><th colspan="4">Warranty</th></tr>
<tr><td colspan="2">15-year limited: Heat exchanger
5-year: Parts</td><td colspan="2">Therm 330PN and THerm 520PN/HN:
15-years: Heat exchanger
2-years: Parts</td></tr>
</table>

Table 8. Bosch certified electric products for Canada

<table>
<tr><th>Product</th><th>Max GPM</th><th>Certifications</th><th>Product example</th></tr>
<tr><td>Tronic 3000 US3</td><td>1.0</td><td rowspan="5">UL</td><td rowspan="5">
Tronic 5000 WH27</td></tr>
<tr><td>Tronic 3000 US6</td><td>1.5</td></tr>
<tr><td>Tronic 3000 US7-12</td><td>2.0</td></tr>
<tr><td>Tronic 5000 WH17</td><td>2.6</td></tr>
<tr><td>Tronic 5000 WH27</td><td>4.0</td></tr>
<tr><th colspan="4">Warranty</th></tr>
<tr><td colspan="2">Tronic 5000 Series:
10-year limited: Heating modules
1-year limited: Other component parts</td><td colspan="2">Tronic 3000 Series:
5-years limited: Heating element
1-years limited: Other component parts</td></tr>
</table>

Rinnai

Rinnai is a Japanese company, founded in 1950. The Rinnai Group consists the parent company, 40 subsidiaries (14 of them are domestic ones) and three overseas affiliated companies. The company is specialized in “development, manufacture, and sales of comprehensive heating products”. (Rinnai Corporation, 2013) The net sales in 2012 were 246.6 billion JPY ($2.6 billion USD) and the net income 16.8 billion JPY (179 million USD). “Hot-water units” represented 49% of the net sales. Rinnai Group employs 8,678 workers worldwide, and the company is listed in Tokyo and Nagoya Stock Exchanges. (Rinnai Financial Results, 2013)

The exports towards North America started in 1974, and have since become one of the “key markets” of the company. The hot-water units and other products are made on an OEM basis to the North American markets. In North America Rinnai is represented by two subsidiaries: Rinnai America Corporation, which is consolidated subsidiary based in United States, and Rinnai Canada Holdings Ltd., which is non-consolidated subsidiary based on Canada. (Rinnai Corporation, 2013) The Canadian subsidiary is responsible of the sale of the products in Canada, but is considered to be under the Rinnai American Corporation that represented 4.7% in 2012 of the Rinnai Group sales, counting 11,584 million JPY (123.8 million USD). However, in 2012 the North American sales declined by 10.9%, and the operating income fell 69.6% to 242 million JPY (2.6 million USD) when comparing to previous financial year (Rinnai's financial year is April 1st to March 31st). According the annual report of Rinnai, this was due to "on-going weakness of the housing and construction market" and because "consumers continued to emphasize low-priced products which caused the shift from storage-type to tankless hot-water systems to slow down." (Rinnai Financial Results, 2013)

The products that Rinnai sells for the North American markets are high capacity products, as the maximum capacity is from 5.3GPM up to 9.8GPM. The units are all certified to meet the different markets demands. They carry typically the required CSA certificate for the Canadian markets, and also the Energy Star certificate. The warranty program that Rinnai provides is up to 12 years for heating element, five years for parts, and two years for labor. Rinnai sells only gas tankless water heaters. (Rinnai, 2013)

Table 9. Rinnai certified gas products for Canada

<table>
<tr><th>Product</th><th>Max GPM</th><th>Certifications</th><th>Product example</th></tr>
<tr><td>V53e</td><td>5.3</td><td rowspan="7">Energy Star, CSA, NSF, UMC, UPCA</td><td rowspan="7">
RU98e/i</td></tr>
<tr><td>V65e</td><td>6.5</td></tr>
<tr><td>V75e</td><td>7.5</td></tr>
<tr><td>RL75e/i</td><td>7.5</td></tr>
<tr><td>RU80e/i</td><td>8.0</td></tr>
<tr><td>RL94e/i</td><td>9.4</td></tr>
<tr><td>RU98e/i</td><td>9.8</td></tr>
<tr><td colspan="4">Warranty
12 – years limited: Heating element, 5 – years: Parts, 1-5 years: Labor</td></tr>
</table>

Paloma

Paloma Group started operating in 1911 in the gas appliance industry in Japan. Since then, the company has expanded to four different continents, having 15,000 employees worldwide and annual revenue of 3 billion USD. Paloma Group consists brands like Solahart, Rudd, Raypak, Everhot, Edwards, Accent Air, Aquamax and Vulcan, but one of the most important alliances for tankless water heater sales was made in 1988 when Rheem started operating under the Paloma

Group. In North America, Paloma Group has representation through Paloma Co., Ltd., but the presence of Rheem is important for the Group through Rheem Manufacturing Company Ltd. in United States, and Rheem Canada Ltd. located in Canada. Nowadays, Paloma Group has 20 manufactories, seven R&D centers, and multiple sales offices around the world. (Paloma Group, 2013)

In North America, the tankless water heaters that carry the brand Paloma are sold mainly in the United States, but can be found also from Canada in varying amounts. The capacity of the units varies from 5.3 GPM to 9.5 GPM. The majority of the units have Energy Star, CSA and NFS ratings, and the units carry a 12-year limited warranty on heat exchanger and 5-year limited warranty on parts. (Paloma, 2013)

Table 10. Paloma certified gas products for Canada

<table>
<tr><th>Product</th><th>Max GPM</th><th>Certification</th><th>Product example</th></tr>
<tr><td>5.3 Series / PH-20</td><td>5.3</td><td>CSA</td><td rowspan="6">
PHH-32</td></tr>
<tr><td>6.4 Series / PH2-20</td><td>6.4</td><td rowspan="5">Energy Star, CSA, NFS</td></tr>
<tr><td>6.6 Series / PH-25</td><td>6.6</td></tr>
<tr><td>8.4 Series / PH2-25</td><td>8.4</td></tr>
<tr><td>9.5 Series / PH2-28</td><td>9.5</td></tr>
<tr><td>High Efficiency PHH-32</td><td>9.5</td></tr>
<tr><td colspan="4">Warranty
12 – years limited: Heating element, 5 – years limited: Parts</td></tr>
</table>

Rheem

Rheem Manufacturing Company Inc. was established in the 1920's in California. The company started to manufacture water heaters in 1930's, and has specialized these days to manufacture and market heating, cooling and water heating systems. The annual revenue was $694 million USD in 2012, having 5,500 employees (Dun & Bradstreet, 2013). Rheem counts as the biggest manufacturer of water heaters in the United States, and the company has also eight subsidiaries in other countries. One of them is located in Ontario, Canada: Rheem Canada Ltd. / Ltée. (Rheem, 2013)

The capacity of the gas tankless water heaters varies from 4.2GPM up to 9.5GPM, and the capacity of the electric tankless water heaters from 1.5GPM to 5GPM (3Kw – 27Kw). The gas water heaters are well certified, including CSA and Energy Star Certifications, but the electric tankless water heaters do not have certifications. The warranty of the products is for 12 years covering the heating element for the full 12 years, parts for five- and labor for two years. (Rheem, 2013)

Table 11. Rheem certified gas products for Canada

<table>
<tr><th>Product</th><th>Max GPM</th><th>Certifications</th><th>Product example</th></tr>
<tr><td>RTG-42PVN / PVP</td><td>4.2</td><td rowspan="6">Energy Star, CSA, NSF, AIA, LEED, AHRI</td><td rowspan="6">
RTG-94XP / XN</td></tr>
<tr><td>RTG-64DVN / DVP</td><td>6.4</td></tr>
<tr><td>RTG-84DVN / DVP</td><td>8.4</td></tr>
<tr><td>RTG-84XP / XN</td><td>8.4</td></tr>
<tr><td>RTG-95DVN / DVP</td><td>9.5</td></tr>
<tr><td>RTG-94XP / XN</td><td>9.4</td></tr>
<tr><td colspan="4">Warranty
12 – years: Heating element, 5 – years: Parts, 2 – years: Labor</td></tr>
</table>

Noritz

Noritz Corporation is a manufacturer of household's water heaters and related products. The company was established in 1951 in Japan, and since then it has been expanding it´s activities to Asia, Europe, Oceania and North America, employing 6,400 people worldwide in 2008. The company had revenue of 1.9 billion USD in 2008, from which over seas water heater sales represented 8% ($152 million USD). The company has eight factories, five R&D canters and 71 sales locations in the world. In 2001, Noritz North America Corporation was established as a subsidiary for the North American markets. Later on, four other branches were established to the United States. The Canada operations includes only a sales network so far. (Noritz Corporation, 2013)

The tankless gas water heaters of Noritz are divided into ecoValue, ecoTough and proTough series. The certified units for the Canadian markets have Energy Star, CSA, UPC and NFS certifications. The warranty of the products is 12-years limited warranty for heat exchanger, 5-years for parts, and 1 year limited warranty for labor. (Noritz, 2013)

Table 12. Noritz certified gas products for Canada

Product	Max GPM	Certification	Product example
NR66 SV-OD	6.6	Energy Star, CSA, UPC, NFS	
NR71 SV-OD	7.1		
NR83 DVC	8.3		
NR981 SV-OD-DVC	9.8		
NRC111 OD-DV	11.1		NRC111
Warranty			
12 – years limited: Heating element, 5 – years: Parts, 1-yar limited labor			

Takagi

Takagi Industrial Co., Ltd. is a Japanese company founded in 1952. The company manufactures and markets tankless water heaters, through Takagi Industrial Co. USA Ltd., which started its activities in North America in 1995. These days the company has five offices in the United States and regional offices in Japan and in Ontario, Canada. The tankless water heaters of Takagi are manufactured in Japan. (Takagi, 2013)

John Wood, a Canadian tank water heater manufacturer, distributes Takagi products under its brand in Canada. The products capacity that are “powered by Takagi” and so on sold in Canada, varies from 6.6 GPM to 10 GPM. Majority of these units have Energy Star, CSA, UPC and NSF certifications, and a limited warranty of 12-years for the heat exchanger, and 5-years for other parts. (John Wood, 2013) Though, Takagi has also other products that obtain certifications for the Canadian markets that it distributes itself. (Takagi, 2013) The products distributed to the Canadien markets by Takagi are presented in the Table 13, along with the products that are distributed by John Wood.

Table 13. Takagi certified gas products for Canada

Product	Max GPM	Certifications	Product example
T-kJr2-IN	6.6	Energy Star, CSA, UPC (*also NFS)	 T-D2
T-K4-IN	8.0		
T-H2S-DV	8.0		
T-H2-DV	9.0		
T-D2*	10.0		
Warranty 12 – years limited: Heating element, 5 – years limited: Parts, 1 year limited: labor			
John Wood Powered by Takagi			
JWT-110	6.6	Energy Star, CSA, UPC	 JWT-520
JWT-310	8.0		
JWT-320	8.0	Energy Star, CSA, UPC, NFS	
JWT-510	9.0		
JWT-520	10.0		
Warranty 12 – years limited: Heating element, 5 – years limited: Parts			

Navien

KuyngDon Navien (KD Navien) was founded in 1978 in South Korea. It started its business in boiler systems, but soon expanded to ventilation systems, home network systems and water heating products. It has headquarters, R&D and training facilities, as well as four factories located in South Korea, from which one is dedicated to produce over 500,000 boilers and water heaters every year. It´s exports activities covers roughly 30 countries but are concentrated into North America, Europe, China and Russia. A new subsidiary called Navien America was established in California 2006 for the United States and Canadian markets. Navien America concentrates only to tankless gas water heaters and boilers in the North American markets, having an office also in Ontario, Canada. (Navien America, 2013)

In 2012, the company acquired the CSA certification for the NPE tankless water heater series to fulfill the North American markets requirements, and in the following year won the AHR Expo Innovation Award (sponsored by Air-Conditioning, Heating, and Refrigeration Institute and International Exposition

Company) for NPE-240A tankless gas water heater. The capacity of the tankless gas water heaters varies from 8.3 GPM to 11.2 GPM. All of the Navien water heater products are Energy Star certified, but only the NPE –series has also CSA and NFS certifications for US and Canadian markets. The warranty of the products is for 15-years, covering heating element and 5-years for the other parts. The first year of the warranty consists also labor. (Navien America, 2013)

Table 14. Navien certified gas products for Canada

<table>
<tr><th>Product</th><th>Max GPM</th><th>Certifications</th><th>Product example</th></tr>
<tr><td>NPE-180A</td><td>8.4</td><td rowspan="3">Energy Star, CSA, AHRI</td><td rowspan="3">
NPE-240</td></tr>
<tr><td>NPE-210A</td><td>10.1</td></tr>
<tr><td>NPE-240A</td><td>11.2</td></tr>
<tr><td colspan="4">Warranty
15-years limited: Heat Exchanger, 5-year: Parts, 1 year: Labor</td></tr>
</table>

Stiebel Eltron

Stiebel Eltron was founded in 1924 in Germany. The company has dedicated into heating, ventilation, air-conditioning, and refrigeration and in renewable energies, employing approximately 3,000 employees worldwide. For tankless water heaters, the company possesses a full line of electric tankless water heaters that are mainly manufactured in Germany or in United States. Stiebel Eltron has five manufacturing plants and 15 subsidiaries worldwide with a annual turnover of 470 million EUR (613 million USD) in 2011. (Stiebel Eltron, 2013) The North American sales and service operations it started in 1980. The United States based manufacturing, sales and service point provides electric tankless water heaters also for the Canadian water heater markets. (Stiebel Eltron USA, 2013)

The products of Stiebel Eltron varies from 1.8Kw to 36Kw, offering a full range of electric tankless water heaters for one point of use to full house need. The maximum capacity of the units varies from 2 GPM to 8 GPM, and all of the heaters have the required certification for the Canadian markets (ETL -

certification). The warranty of the products is the markets lowest, offering three year limited warranty program for parts. (Stiebel Eltron USA, 2013)

Table 15. Stiebel Eltron certified electric units for Canada

Product	Max GPM	Certifications	Product example
Mini Series (1.8-5.7kw)	2.0	ETL, NFS, ANSI	 DHC-E / Tempra
DHC Series (3-9.6Kw)	2.0		
DHC-E Series (5.4-12Kw)	4.0		
Tempra Series (20-36Kw)	8.0		
Warranty 3-years limited: Parts			

5.4.1 Asses product potential

The competitors in the Canadian markets vary from distributing companies to manufacturers. This brings a high variation in the companies' size, as there exists business with sales of hundreds of thousands up to global corporations with annual revenue of 67 billion USD. The main competitors have normally their own sales offices and service networks in the market which makes the actual sales as well as the after service more controlled. Also, as the main competitors possess products manufacturing and R&D facilities, adjusting the product to the markets special requirements becomes available and gives an advantage point in the markets, as well as the control of the value chain.

The competitor's products have a wide variety of certifications. In addition for the required certification for Canadian markets, all the gas units that are approved to the Canadian markets carry the Energy Star certificate, which provides extra value for the unit and enables the unit to enter possible rebates in the sales regions. As the Canadian certification is required in the market, the only competitors that do not possess such certificates are selling the products through e-commerce that allows units to be exported to Canada even though the product does not have any certificates in it.

The manufacturing companies have normally divided their products into commercial and residential tankless water heaters. The commercial water heaters have normally a higher capacity ratio, and are directed only for commercial use. The residential water heaters are for day-to-day use, having more wide capacity range according the need. When comparing the competitor's Canadian certified products capacities for the residential use, the variation is from 3.3 GPM to 11.2 GPM in gas units, and in the electric units it varies from 1.0 GPM to 8.0 GPM. However, the average size of the tankless water heaters directed to the Canadian markets by these manufacturers is 7.3 GPM, leaving only few low capacity water heaters to the product catalogues. The majority of the manufacturers do not have certified electric tankless water heaters for the Canadian markets.

The warranty service provided in Canada by the main competitors is covered normally up to 10 to 15-years, having limited service by part type and usage. As the majority of the main competitors have local offices and so on local contractor- and service network, the warranty support can be provided efficiently for the client. According Emco Plumbing & Heating Supplies sales representative (2013), the distribution and the technical support is the backbone, and has improved the reputation of some companies' that had difficulties with their tankless water heaters earlier in the market.

The case company's products strengths, weaknesses, opportunities and threats for the Canadian market are listed in Table 16. The case company has a good variety of products from one point use to whole house use in electric and gas units. Only few of the electric units are certified for the Canadian markets. In a sense, the case company´s brand name offers a strength for the products, but the warranty programs length compared to the competitors and the lack of after sales service difference the company's products significantly from the main competitors in the Canadian markets. However, the case company´s products are low-price products, which give some advantage to the high end products that the competitors offer.

Table 16. Case company's products SWOT –analysis

Strengths - Variety of products - Low-cost products - Brand name: long history in the industry	**Weaknesses** - Only low capacity units - Lack of certifications - Warranty program - Lack of after sales service
Opportunities - Low-cost product markets - Niche market product development - Electric tankless water heaters	**Threats** - Globally known big competitors - Compatibility to markets special requirements (e.g. anti-freezing feature) - Demand of service and support - Regulations (e. g. Energy Star)

The opportunities that the case company´s products have are in the low-cost product markets, as well as in the niche markets where the costumer requires a functional product for a specific type of use, and not necessary for the basic whole house heating need that would work for the majority of the consumers. The electric tankless water heater markets possess also opportunities, as the main competitors have been focused mainly to the gas tankless water heating solutions, leaving less competition among the electric units. The threats for the case company's products in the market are the compatibility of the products for the special need of the Canadians, increasing demand of service, and the pressure that the globally known brands can give in the markets with their high recourses. Also, the lack of Energy Star certified products could form a threat, as the local authorities and government encourages customers to purchase products that have reached certain proven energy factor, as well as the existence of safety and reliability regulations.

5.5 Key success factors

There exist multiple factors to take in consideration when entering the Canadian water heater markets. The tankless water heater has to be able to provide hot water for multiple faucets at the same time, in colder incoming water temperatures maintaining a good water pressure. Safety, reliability and energy efficiency regulations dictate the markets, as selling and installing such products in the markets is not possible without compatibility for these regulations. (CIPH, 2013)

The diverse range of climate in Canada causes also variation of operational issues. Such issues have proven to happen especially during wintertime with the ventilation of the gas units, as it caused unintended moisture and freezing of the vent. Also, as the temperatures can reach freezing degrees, the installation point of the water heater would need to be in a heated space to prevent the freezing of the unit. Another important factor is the low cost of the energy in Canada, as the consuming decision changes rapidly according the lowest available energy source. (CIPH, 2013)

The low Canadian population density brings also its challenges in the market place. The distances to distribute the products to the customer or retailers can become high. (CIPH, 2013) However, provinces such as Ontario and Alberta are normally the starting points for new foreign business, since they possess a good infrastructure and high population density. The Canadian customer requires good service and support for the purchased product. The ability to provide such after sales services is critical to be able to have a competitive product in the markets.

To obtain a good market share in the markets, the access to the big retail chains is important, as they are the primarily distribution channel in Canada for such products. Though, as e-commerce becomes more and more popular in Canada, it offers great potential for direct sales to the customers, as well as accessing the more specific markets such as low-income families, and cottage and RV markets.

6 MARKET ENTRY STRATEGY

The market entry strategy will be determined according the transaction specific asset, external- and internal uncertainty, and freeriding potentiality. In the following chapters, these characteristics will be examined and the recommended possibilities for entering the Canadian water heater markets are presented.

Transaction Specific Asset

Tankless water heater requires certain level of knowledge of electric or gas appliances from the user, which makes it a bit more complex and technological product. In many times, licensed professional installs the product so that the local codes and requirements are met accordingly, even though the units could be installed by the customer itself. However, in Canada the installation of a gas or electrical appliance, such as tankless water heater, has to be done by licensed professional (EMCO Plumbing & Heating Supplies, 2013; Importation Ecoboat, 2013), which is why the unit service requirement is high. Also, companies and consumers expect that the foreign manufacturer or distributor have local subsidiary or agents that provides assistance, if any problem occurs with the product (Finpro, 2010). This indicates that a higher control mode would be more suitable, to be able to provide local service and support for the customers.

The products that the case company would be distributing to the markets are not manufactured by the company, which means that the same type of products can be found from the markets as distributed under other brands. This is how the products processes are semi-structured and moderately well understood, as the technology developed by the manufacturers R&D is out of the case company's control and available more freely in the market. The company possesses years of knowledge of tankless water heaters that could be transferred through higher control modes to first hand market knowledge and to innovations in the market.

External Uncertainty

The country risk in Canada is low. As presented in the chapter six, the country´s legal, political and economical systems are stable and well organized. Though, the market contains a number of regulations and codes to be able to sell, buy and install products such as water heaters, and a new regulations and restrictions from the local authorities have been set to the industry in the last years (Emco Plumbing & Heating Supplies, 2013), which slightly rises the external uncertainty. In overall, the low country risk and the lack of evident external uncertainty, implies no need for high control entry mode.

Internal Uncertainty

The case company´s international experience has begun years back through import activities. During the recent years, the international business experience of the case company has grown significantly, as the commitment to the export activities increased in new markets. Though, the international experience of the company is still in developing stage, as the running of the import - exports procedures are mainly outsourced, and the export activities concentrating mainly to nearby countries that possess similarities to the domestic market, as well of ease of access and operations.

The socio-cultural distance between the case company's domestic market and Canada is quite high. The ways of conducting business, culture, language, level of education, and habits and values are very different between the countries, which make the transaction to the new market harder. However, as the business community of the industry is large in Canada (982 incorporated businesses in the *Plumbing, Heating and Air-conditioning Equipment and Supplies Merchant Wholesaler and Distributor* industry), a good number of experienced plumbers, contractors and salespersons working with the similar products is more available to get local assistance and market knowledge when making any type of joint ventures or agreements. The moderate level of international experience and the socio cultural distance would imply that the medium level entry modes should be favored.

Freeriding Potentiality

The case company's brand name is well known in the domestic market as the company has a market leaders position in it, but in foreign markets it´s still quite unknown. Though, the company has it´s long roots and experience in the industry, it opens the possibility of the freeriding to other companies with less recognition in the markets. Local partners in the foreign market, and partners that have less valuable brand name have less to loose when degrading a brand than the case company that would be entering the markets. For the case company, the danger of freeriding is not that evident as it would be in the situation of its main competitors that carry globally known brand names, implying that a high control entry mode would be needed.

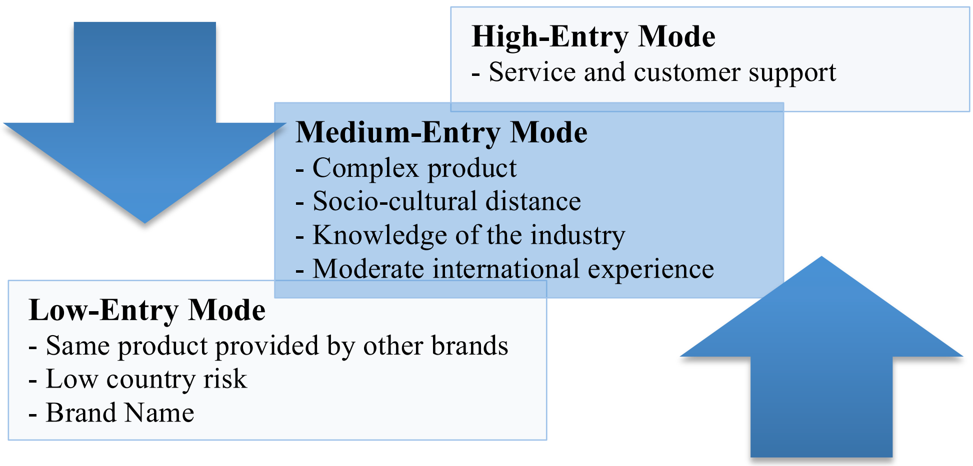


Figure 25. Entry mode suitability by the company's characteristics

6.1.1 Low and medium entry mode

Sales agents, vendors or sales representatives contracted through non-exclusive non-restrictive contracts would represent low commitment of recourses as well as low control in the entry mode. However, as presented in Figure 25, where the case company's characteristics are listed according the entry mode, the medium-entry modes section would support contract forms with exclusivity and restrictions, to protect the company's interests and having more control over the market. Though, Puerto Rico, where the company is resident, has no tax treaty with Canada, the

Canadian independent sales representative is liable to income taxes on its profits of the sales, giving a small advantage for the competitors from countries that have such treaty (Doing Business in Canada, 2013). Companies from the United States have usually favored sales agents to maintain good contact with the clients when entering the country. Because of the low population density, there are normally several representatives around the country (Finpro, 2010).

After sales support and service is the single most important characteristic for businesses that are selling water heater products. Tankless water heaters are somewhat complex products, which in many cases need technical support and assistance by professionals. Also as mentioned earlier, Canadian regulations require a certified installation for the products, needing a joint operation as an entry mode to support this side of the business without having to make high investments with a fully owned subsidiary, but still maintaining control of the product- and service quality. By obtaining a contractual management or contractual joint venture, the case company can receive valuable market knowledge and support from a local partner, and divide the risks and responsibilities on the venture.

Entering to the markets through e-commerce can be done through low- or medium entry modes. E-commerce offers a cost-effective way to sell units to the end customers, through vendors specialized in such platforms, or directly by the company. The listing fees, payment fees and commissions are moderate, allowing low prices and effortless order submission for the client, as well as for the seller. The setup needs lower involvement in the actual process, but the same pre sail and after sale functions and higher logistical support, as the requirements for order fulfillment are stricter (e. g. eBay requires tracking number upload in 24h) and normally the shipping’s are done by drop shipment (eBay.ca, 2013).

The biggest and most popular e-commerce platforms in Canada, that offers home improvement products among others are: Amazon.ca, Bestbuy.ca, Walmart.ca, Canadiantire.ca, Ebay.ca, Lowes.ca, Sears.ca, HomeDepot.ca, Well.ca and Shop.ca. Shop.ca is one of the most recently established e-commerce sites that is directed especially for the Canadians, trying to gain the number one position in the e-commerce sales in Canada, over the United States based companies such as Amazon (Dan Verhaeghe, 2012).

The use of retailers and distributors is common in Canada (Finpro, 2010). By using a distributor or retailer, the company can focus on its other activities, using the existing network of the distributor or retailer. This can make the penetration easier and faster, especially in the wider areas of Canada. Though, the company would be left with less control over the product and price, as the actual selling and distributing of the product would not be in it´s own hands. (Trade Partners UK, 2000)

Canada has quite good variety of B2B and B2C logistic centers to reach the whole Canada. For example, Canada Post, Hopewell Logistics Inv., LS Distribution North America, and All-Can Pro Logistics Inc., provides warehousing, transportation and order management solutions from central distribution points in Canada. The B2C orders works mostly by drop shipping. For example, Canada Post has post-office network of 6,500 outlets across the country, including 78% of the population within 2.5 km from the nearest postal outlet, making it the Canada’s leading provider in B2C deliveries (Internet Retailer, 2013). The use of such logistical centers enables the distribution of the products by direct shipment to the client, as well as efficient delivery for the retailers.

6.1.2 High entry mode

The only characteristic of the case company and the product that would suggest a high-entry mode is the need for local service and support. The possibility to establish a Canadian incorporated subsidiary or a branch of the company would keep a high control of the service and support in the hands of the company, but would also require high investments of recourses. The most common type of business in Canada is a private corporation. The jurisdiction of a Canadian subsidiary corporation goes under the federal Canada Business Corporations Act (CBCA), or under the equivalent legislation of the province where acting. For branch operation, the company needs to register or become licensed as an “extra-provincial corporation” in each province where it carries on business, which will be defined by particular circumstances. (Doing Business in Canada, 2013)

Forming a branch or corporation in Canada requires certain level of market knowledge of Canada, as well as capability to obtain the administration of it (Trade Partners UK, 2000).

When opening a Canadian incorporated subsidiary or branch office, business have to register for the GST/HST and income tax. The corporate taxation in Canada is the lowest among the developed countries, and the second lowest among the 14 biggest countries in the world (McKenna, 2012). However, the labor costs are higher in Canada than in the United States (Mittlestaedt, Keith & McGugan, 2012), as well as the Canadian dollar is slightly stronger than the US dollar, which affects to the competitiveness and costs of establishing a corporation or a branch in Canada.

7 CONCLUSION

The goal of this study was to find out about the Canadian water heater markets and if the case company should siege the possible opportunity by entering the markets and how should it be done. The set research questions were: what special characteristics and requirements the Canadian water heater markets consists, what is the potentiality and competition situation of them, and how should the case company enter the markets. The chosen research method for the study was inductive, with qualitative data collection method.

Special characteristics and requirements

One of the special characteristics of the Canadian water heater markets comes through the country’s location and size. Canada can be found among the countries that have the lowest population density in the world, which makes the logistical environment more challenging and serving the whole country harder. Though, in the metropolitan areas, the country ranks internationally well in the logistical costs and leading times. The northern climate requires special features and higher capacity from the water heater so that it can serve the purpose during the seasonal climate changes. The substantially colder incoming water temperature and the freezing outside weather temperatures during winter times needs to be taken into consideration when targeting the product for a special market need or even for the basic whole house water heating need.

The Canadians high water consumption habits suggest also the need of a bigger capacity tankless water heater, so that high water temperature increases in good pressures in the required multiple points of use can be provided for the consumers. The number one energy source used in households is natural gas, implying that gas tankless water heaters would have better potentiality in the future at the markets. However, the imports figures of tankless water heaters shows that the electrical units are still slightly ahead in the sales. For products like tankless water heaters, that are somewhat more technically complex units, service and support are one of the most important qualities. This highlights on the requirements and expectations of Canadian consumers, and therefore is an important market characteristic when entering the markets and trying to gain market share. Also, the

Canadian consumers cultural diversity is big, setting different requirements in the marketplace linguistically and culturally.

Other special requirements and characteristics that the Canadian water heater markets possess are regarding selling, purchasing and installing the products. To be able to sell water heater in Canada, the unit has to be certified for the markets standards, but also a proof that a licensed installer will be installing the product is required. This makes the whole process of the products pathway from the seller to the end consumer's use more controlled and comprehensive, affecting to the provided sales and after sales need and accuracy. The country holds different levels of taxation between the provinces that might combine the federal goods and service taxation with the provincial taxation, making the amount of sales tax range notably between the provinces. Other special market characteristic is the somewhat popular method to rent tankless water heaters in some provinces. This offers a unique and tighter relationship with the customer, but also requires fully working service network personnel available all the time so that such services could be provided.

Canadian water heater market requirements and special characteristics:

- Climate and population density
- Consumer habits and multiculturalism
- Need of certifications and licenses
- Alternative sales methods and service readiness

Entrée requirements:

- ✓ Higher capacity products for demanding climates
- ✓ Products material and support preparation
- ✓ Well certified and specified products
- ✓ Organized service network and logistical readiness

Markets potentiality and the competition situation

The industry where tankless water heaters belong, counts a total of 10.3 billion CAD (10.1 billion USD), and has been increasing steadily the last ten years, without counting the recession of 2009. Especially the imports of electric and gas tankless water heaters, have been more than doubled in the same time of period, indicating that the use and knowledge of the tankless form of heating water is gaining popularity among Canadians. At the same time the Canadians household size is decreasing and thus increased the amount of households, forming more demand for new water heating solution. Also, as the households energy use for water heating has been decreasing during the recent years due to more energy efficient water heating methods, indicating that the positive increase of the sales of household's products such as tankless water heaters will continue to grow as the consumer is getting more educated and willing to use alternative water heating solutions.

The markets of tankless water heaters can be described as very competitive and dominated by globally well-known manufacturing corporations. These brands are present in the markets through sales offices and wide service networks, which give significant market advantage through the local presence and support. The high service readiness can be seen also in the offered warranty programs. The competitor's products that are directed and certified for the markets are higher capacity products mainly from gas product lines. All of the gas products possess additional certifications such as Energy Star –certificate that brings more value for the product. A good number of other non-manufacturing but tankless water heaters distributing brands can be found from the Canadian water heating markets. Though, these products are sold through e-commerce as they are lacking the necessary certifications, and therefore do not have local presence.

Should the case company enter the markets?

The answer whether the case company should enter the Canadian water heating markets is two phased. For the question whether the Canadian water heater markets possess market opportunity for the case companies type of products, the author's opinion is that yes they do. This is mainly due to the markets size and growth in the recent years. Also, the fact that the markets carry mainly brands that are considered "high end" products in the industry leaves them without alternative lower cost products, which why the potentiality for the case company's products is more evident. The case company has only few electric tankless water heaters that are certified for the Canadian markets, but targeting those products to specific market areas through carefully picked sales channels might bring the needed variety to the electric tankless water heater supply of the markets.

On the other hand, when asking should the case company enter the markets, the author's opinion is that it depends on several factors that have to be met before entering the markets. Entering the markets would need long-term commitment from the case company as well as constant product development and networking to be able to gain the required service readiness and market share in the Canadian markets. This is due to the competition situation and the markets requirements and characteristics. As the case company is a medium sized business that has already still quite new operations in other foreign market places that require constant resources and dedication, the needed new recourses submitted to the new market entry would require higher capital investments and possible organizational changes and new employments to fully serve the markets need. Also, to be able to meet the country's special requirements and characteristics, the products have to comply with the markets by their functionality, capacity, certifications and materials. This would require more specific local market knowledge so that products communication and functions can be modified accordingly. To obtain such market knowledge, networking and partnering with local businesses could make the market entry to the markets more possible when considering the case company´s size and structure.

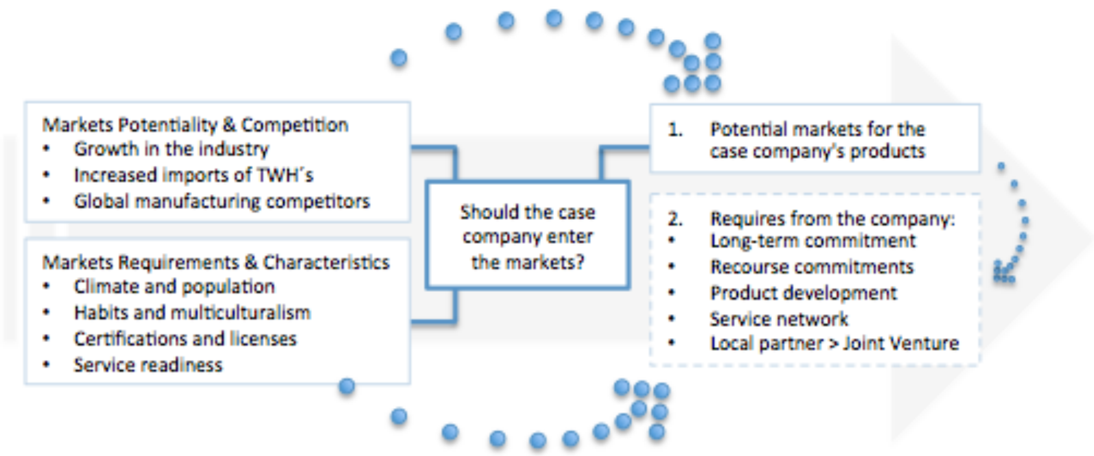


Figure 26. Should the case company enter the markets?

The recommended entry mode

Considering the case company’s size, international experience and organization, entering the Canadian water heater markets would be recommended to be done through a joint venture. By using a joint venture, the case company would be able to maintain control over the market, enabling more efficient product development as well as service and knowledge networking. Even though medium level of control would be gained over the markets, the recourses submitted to the market entry would be divided along with the risks of the operations. By using the joint venture mode, the business partners experience and knowledge of the markets would ease the process of entering them, form a local service point and network, and thus provide the crucial after sales support for the somewhat complex product that the market and industry requires.

As Canada is geographically a huge country, the joint venture should be concentrated at first to a specific market area or to a single province. The case company should focus on metropolitan centers such as Toronto, Montreal and Calgary since they possess high-density populations, are logistically feasible, and have a wide range of local companies that could be potential business partners in the future. This is how the service and sales could be more easily controlled and provided for the customers as well as for the business associates. The access to the local retail stores and vendors would be also easier and more selective, making the retailing of the products attractive for vendors through available local service and support. Even though the Canadian e-commerce has great opportunities for the local businesses, in the author´s opinion it should be avoided during the market entry due to the fact that it normally requires control over larger market areas that would need to be covered with service, support and logistically, which would not represent a controlled market entry to obtain market share through specific market knowledge and experience.

7.1 Feasibility and future research

The study provided market information of the Canadian water heater markets, recognized the special characteristics and requirements from the markets and the competition situation, and identified the most suitable entry mode to the markets.

Therefore the study reached the set goal to answer whether the Canadian water heater markets would possess potentiality for the case company. The used theoretical frameworks provided the base concepts for the decision-making process of internationalization, and the used research and analysis method supported the set framework by providing qualitative information of the markets.

However, the availability of market information specifically on tankless water heaters was quite limited since it came from public sources. To obtain more information on the actual market size, investments to more specific market research would be needed. Nevertheless, the results of the study are feasible for further practical use for the case company. The study provided new comprehensive information of the Canadian water heater markets as well as of the decision-making process of internationalization, and therefore gives the case company the needed tools to make the decision whether to enter the markets or not. It also gives basic information for further business related interaction with different actors from the markets, and strategic approach to the decision-making process of internationalization to be applied for future ventures.

If the case company would decide to enter the markets, the future steps to continue should be done by allocating recourses and making further strategic planning, as presented in the theoretical framework of the study. The part of the strategic planning includes the elements of an export plan to be able to execute the decision of internationalization. The further planning requires the following first steps to be taken: organizing the structure and resources internally, forming networks with the associates and a marketing strategy, establishing the entry and logistical network as well as the control and evaluation of the operations.

During the research, the potential of e-commerce and the lack of Canadian businesses participation in it raised attention. Finding more about the Canadian e-commerce platforms possibilities and about the possibility to use local logistical centers to distribute the products efficiently within the country could provide opportunities for the later penetration of the markets. Though, as recommended in the entry mode strategy, entering Canadian e-commerce platforms would require already established service and support network.

8 SUMMARY

The purpose of this study was to provide answer whether the case company should internationalize towards the Canadian water heating markets. The goal was to find out the special requirements and characteristics of the markets, as well as the potentiality and competition situation of them, and find out the most suitable market entry mode for the case company.

The study is combined into theoretical part and empirical part, which are followed by the conclusion and authors recommendation for the case company. The theoretical part of the study finds out about the companies decision–making process of internationalization and the behavioral process behind it. It also provides tools to analyze the internal readiness, markets potentiality and entry mode selection to successfully carry out the process of internationalization.

In the empirical part, the case company's internal readiness is studied first through a model presented in the theoretical part. The second part consists analysis of Canada through PESTEL –analysis to recognize the country´s special requirements and characteristics. It also contains analysis of the markets potentiality by studying the market size and customer, and the competition situation. The third empirical part forms the most suitable market entry strategy for the case company to enter the markets.

In the conclusion part, the findings of the study are gathered and recommendations are given whether the case company should siege the possible markets opportunity and how should it be done. The author finds the answer whether the case company should internationalize towards the new markets to be two folded, as the markets do possess positive potentiality for the case company's products, but the special characteristics and requirements of the market demand certain actions to be taken, so that the market entry and success in them could be achieved by the case company.

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APPENDICES

APPENDIX 1. Qualitative questionnaire of the company's internal readiness: McKinseys 7's model.

1. Style: How would you describe the prevailing company culture? How the everyday things are done/ executed?
2. Skills: What type of skills the company possesses? What about the individuals inside the company?
3. Systems: What types of systems are used in the company? How would you describe the processes of workflow inside the company?
4. Structure: What type of organizational structure the company has? How is the relationship network of the company?
5. Staff: What types of talent the staff possesses? How is the diversity of talents in the company?
6. Strategy: What are the goals and objective of the company? How the competitive advantage is tried to gain?

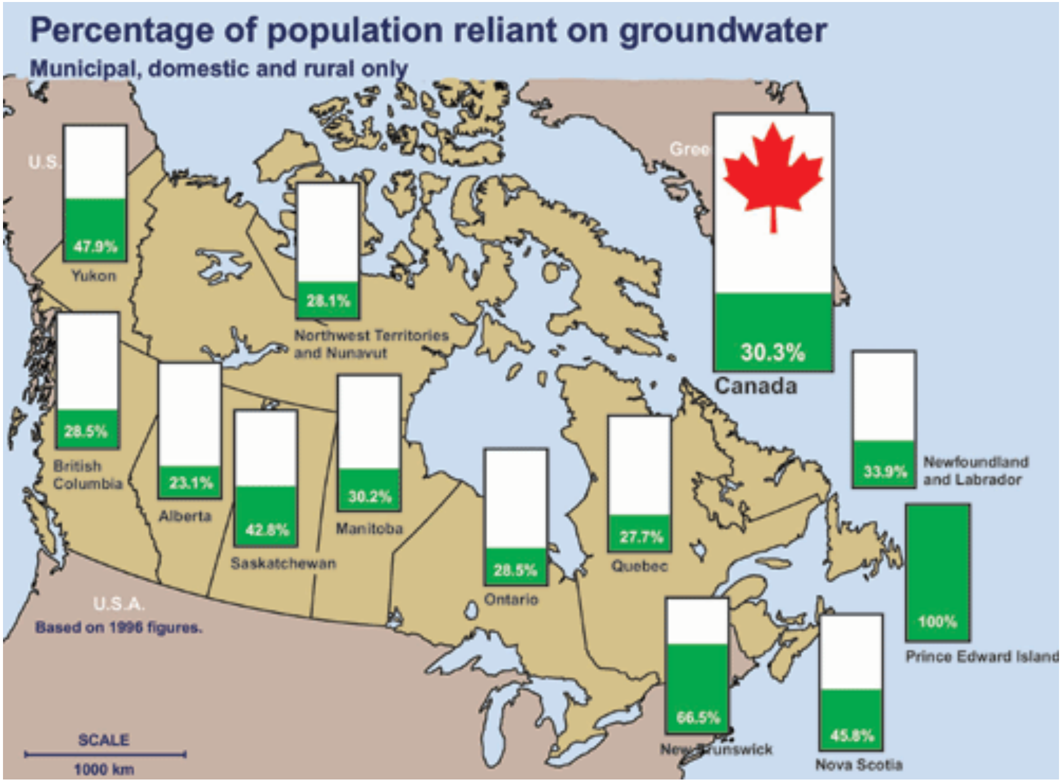
APPENDIX 2. The structure of the qualitative questionnaire: Canadian water heating markets.

1. Canadian Water Heating Market Generally:
   - How is the household's water heating organized in Canada?
   - What are the typical requirements for water heater? (how many points of use, incoming water temperature influence, house sizes, voltage used, gas type used: NG/ LPG)
   - What is the most typical water heating solution that people use? (District, solar, tank, tankless..?)
   - Do the water heater requirements or customer need change between provinces? How?
2. The commonness of TWH's in Canadian households:
   - How would you describe the markets of TWH's in Canada? (any rising awareness?)
   - How common is to own a TWH? (The buyer profile)
   - Why do you think people use or do not use TWH's? Are there any concerns towards them?
   - Are there any rebates/ governmental aids available for TWH's? (or for other water heating solutions)
3. The offering of TWH in Canada:
   - Where do people find/ purchase water heating solutions normally?
   - How do the consumers see the offered product selections? Is it lacking something? What?
   - What are the most important qualities the consumers are looking from a TWH? Which qualities would you improve? (Size, additional features, etc.)
   - How would you describe the competition situation of TWH's in Canada?
4. The future and trends:
   - How would you see the future trends and development of water heating in Canada? (attitudes, new solutions)
   - Has there been any rising or decreasing support of the local authorities towards more energy efficient water heating solutions?

APPENDIX 3. Provinces and territories of Canada.

Source: Mapsof.net. 2013. Canada Provinces and Territories Map – Canada Maps. [Referred: 25.03.2013]. Available: http://mapsof.net/map/canada-provinces-and-territories-map#.UVDeTxnP0y4

APPENDIX 4. Percentage of population per province reliant in ground water



Source: Environment Canada, 2011a. Ground water. Environment Canada. [Referred: 04.02.2013]. Available: http://www.ec.gc.ca/eau-water/default.asp?lang=En&n=300688DC-1

APPENDIX 5. Special certification requirements of gas safety: British Columbia

Part 3 — Regulated Product Standards and Certification

8.1.1.1 Canadian gas standards adopted as B.C. Natural Gas and Propane Code

30 (1) In this section, "**national code**" means the following codes or standards:
(a) CSA-B149.1-10 Natural gas and propane installation code;
(b) CSA-B149.2-10 Propane storage and handling code;
(c) CSA-B149.3-10 Code for the field approval of fuel-related components on appliances and equipment;
(d) CSA-B149.5-10 Installation code for propane fuel systems and tanks on highway vehicles;
(e) CSA-B109-01 Natural Gas for Vehicles Installation Code;
(f) CSA-Z662-07, Oil and gas pipeline systems;
(g) CAN/CGA-B105-M93 (R2007) Code for Digester Gas and Landfill Gas Installations.
(2) The national code is adopted by reference, with the changes set out in the Schedule, as the B.C. Natural Gas and Propane Code.
[en. B.C. Reg. 50/2007, Sch. 1; am. B.C. Reg. 150/2011, s. 5.]

8.1.1.2 No installation of gas appliances unless certified or approved

31 (1) An appliance must not be installed in British Columbia unless the appliance displays a label or mark as follows:
(a) a certification mark;
(b) an approval mark issued under section 10 of the Act.
(2) Subsection (1) does not apply to an appliance with a maximum input below 120 kW which is being reinstalled, but no appliance may be reinstalled unless it has been examined and repaired if necessary and certified to be in safe working condition by a gas fitter.
(3) A person must not use a portable heater for temporary heating unless the heater bears a current decal, valid for 2 years, applied by a gas fitter certifying as to its safety and operation.
[am. B.C. Reg. 327/2005, Sch. 3, s. 1.]

8.1.1.3 Certification agencies

32 An organization accredited by the Standards Council of Canada under the Standards Council of Canada Act as an organization engaged in conformity assessment is a certification agency for the purposes of this regulation.
[en. B.C. Reg. 327/2005, Sch. 3, s. 2.]

8.1.1.4 Dealers to maintain records of gas appliances

33 A dealer must keep, for a period of at least 7 years, a record respecting every gas appliance that the dealer sells, showing the following:
(a) the name and address of the purchaser;
(b) the place of installation;
(c) the type and model number of the appliance.

Source: BC Laws, 2011. Safety Standards Act: Gas Safety Regulation. British Columbia. [Referred: 11.02.2013]. Available: http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/15_103_2004#part3

APPENDIX 6. Different types of certifications for Canadian markets

Marks for Canada

Certification marks for Canada

For Canada: A CSA mark on its own, without indicators, means that the product is certified primarily for the Canadian market, to the applicable Canadian standards. If a product has features from more than one area, (e.g.. electrical equipment with fuel burning features), the mark indicates compliance to all applicable Standards.

For Canada and the U.S.: A CSA mark with the indicators "C" and "US" or "NRTL/C" means that the product is certified for both the U.S. and Canadian markets, to the applicable American and Canadian standards. If a product has features from more than one area, (e.g.. electrical equipment with fuel burning features), the mark indicates compliance to all applicable Standards.

For gas products in Canada: The CSA Blue Flame indicates the product is certified to applicable Canadian standards for appliances using gas or other petroleum fuel. For details, see the Gas Appliances Certification Program. If a gas product has electrical features, the Mark also indicates compliance to the applicable electrical Standard(s).

For electrical products in Canada: The energy efficiency verification (EEV) marking means that a product has been verified according to CSA standards for energy efficiency and performance. For details see the Energy Efficiency Verification Service.

For carrier safety management in Canada: This marking indicates that a carrier has instituted and documented a safety management system that controls the safe movement of vehicles and goods. For details see the Carrier Safety Management System Program.

Source: CSA Group, 2013. CSA International. [Referred: 06.02.2013]. Available: http://www.csa-international.org/certification_marks/marks_for_canada/

Source: Intertek. 2013. ETL Listed Mark. Intertek Group Plc. [Referred: 10.02.2013]. Available: http://intertek.com/marks/etl/

Marks that appear on Canadian products include

Source: UL LLC. 2012. Code Infromation for Canadian Certified Equipment: The Canadian White Book. UL LLC. [Referred: 25.03.2013]. Available: http://www.ul.com/canada/documents/codeauthorities/english/CWB-FINAL-2012.pdf/

What are the marks of conformity?

Source: IAPMO R&T. 2013. Canadian Certifications: Some FAQ´s About Canadian Certifications. IAPMO R&T. [Referred: 10.02.2013]. Available: http://www.iapmort.org/Pages/CanadianCertification.aspx