

Developing new integrated business model to consolidate heat pump products in Chinese Market

Yi Ding

Bachelor's Thesis
Degree Programme in International Business
2015



Author(s) Yi Ding	
Degree programme International Business	
Report/thesis title Developing new integrated business model to consolidate heat pump products in Chinese market	Number of pages and appendix pages 42 + 0
<p>This thesis is based on a project, which began in September 2014 and finished until in May 2015. The commissioning company in this project is Oilon Oy. Oilon Oy is a Finnish company based in Lahti, which has branches in over 20 countries. Oilon has launched its heat pump products in Chinese market two years ago.</p> <p>Currently Oilon is facing challenges in increasing sales and gaining market shares due to certain critical factors in the Chinese market. For instance, the heat pump industry in the Chinese air-conditioning market lacks of legislation and regulation. Heat pump products had lost their reputation due to the chaos in the market. On the other hands, the competition in Chinese air-conditioning market is huge. However, due to the increasing level of pollution, Chinese government is keen on supporting low carbon environment-friendly products politically and financially. These factors above give both incentives and challenges for Oilon to develop its heat pump product in China. Therefore, the development of a new business model for Oilon is necessary. In this thesis, the current business model was analyzed as well as the current external environment and dynamic performance of Oilon. After this, a new integrated business model was developed based on the analysis and research.</p> <p>The mechanism of the new business model is to integrate and utilize different business partners in order to approach to new customer segments, providing new value propositions with new activities and eventually generate new revenue streams.</p>	
Keywords Partners, integration, external environment, dynamic performance	

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1 Introduction

This thesis is based on a project, which began on September 2014 and finished until May 2015. The structure of this thesis is based on a zipper model. The project is made for the commission company Oilon Oy, which is based in Lahti. Oilon is a well-known burner and heat pump manufacturer, of which products are highly energy-efficient oriented. Oilon launched their heat pump products in China 2 years ago. However, Oilon confronts a challenging business environment to develop its heat pump products in Chinese market, due to the complexity and diversity of Chinese domestic Heat Pump market. For instance, the company suffers from unsatisfactory sales and market shares. Oilon is currently using a traditional business model by developing and cooperating with local agent and distributors to promote their sales. (Li, R. 3 Nov 2014)

Oilon confronts challenges in reaching satisfactory sales and gaining market share, because of complexity due to the lack of legislation and regulation as well as the high competitiveness and brand recognition difficulty. Using the current business model to generate sales and market shares by cooperating agents, distributors and own sales force will not satisfy the heat pump product operation in Chinese market. Therefore, in this thesis project, a new business model will be developed for the case company. The key of the new business model is to integrate external partners into Oilon's current business model by offering and creating mutual interests to all the partners (Li, R. 25 Feb 2015). The new integrated business model in this thesis gathers partners from governmental organizations and departments, state-owned companies, district heating companies, design institute and financial institutions. Hence, the integrated business model is highly based on partners; the new business utilizes partners to provide values to customers, increase activities, generate revenues and sales channels as well as approaching to more customer segments.

1.1 Project objectives and benefits for the company

The project of this thesis is developing new integrated business model to consolidate heat pump products in Chinese market. In other words, the main objective of this project is to create a new business model to support the case company operating and developing heat pump products in Chinese market. The author aims to analyze all the business elements and factors to support his new business model for the case company. The project benefits the case company from various aspects. The new integrated business model as an outcome of the project could help the case company generate sales by sharing interest among all the partners. However, the case company does not only benefit from the final outcome of this project but also from the processing tasks. For instance, analyzing the

external environment of heat pump industry in China gives an understanding to the case company what threats there are in the market and challenges the case company is facing when operating in Chinese market. Partner selection helps the case company to understand interests of stakeholders, which is an excellent tool for business development for the case company.

1.2 Key concepts

Heat pump: Heat pump is not a recent invented technology. In simple words, It is an equipment that extracts heat energy from one object or medium and transfer to another one. Heat pump products have different types; there are water sources heat pump, air sources heat pump, ground source heat pump. (Natural Resources Canada 2014.)

Operation and Management Company: Operation and Management Company is a company, which is responsible for managing and operating the process of a project, a process or a function of a product. The operation and management company is responsible of ensuring the quality of the functionality of the products.

1.3 Demarcation

The objective of this thesis is to create and develop a new business model for the heat pump products of the case company, Oilon. The case company has also burner, solar products. However, these are neither included nor suitable in the new business model. The focus of this project is to find out a feasible possibility for heat pump product in the air-conditioning market in China since heat pump products are categorized into air-conditioning market.

As a result, the outcome of this thesis is the new integrated business model, of which the business model is high based on cooperation with partners in different perspective. However, the feasibilities and approach methods of partners will not be included due to the limited resources and time. This project-based thesis will only present to the case company the mechanism and functionality of the new business model in order to increase sales in future.

Due to the inconvenience of locations of author and the case company, most of the communications and interviews were made via tele-meetings and emails.

2 Case company and project method

This chapter introduced general information of the case company and current information in Chinese branch. As well as the company introduction, project method applied in this thesis is also presented in this chapter. Firstly the author introduced the company history and milestone of the case company, as well as the product range. Secondly, the author introduced current business development in China. As the last part of this chapter, a well-explained project method is included.

2.1 Introduction of case company

Oilon is a Finnish family-owned energy company, founded by Ossi Leiwo in 1961, specializing in environmental technology products. The company produces burners with combustion systems, heat pumps, cooling plants, and solar heat collectors. Oilon is dedicated into environmental technology with product research and development work. Oilon is mostly focusing on field of improving energy-efficiency, decreasing emission levels and providing new solutions using renewable energy sources. Oilon has currently 360 employees and 22 researchers working in the company. Oilon has approximately 71 million euros turnover in the past three years. (Oilon 2015.)



Figure 1: Company structure of Oilon (Oilon 2015.)

Oilon has production lines in both Finland and China. The headquarter of Oilon is based in Lahti. Oilon has factories in Lahti, Hollola, Kokkola and Wuxi, China. Oilon also owns sales offices in Russia, Brazil, the US and the other 30 countries. From statistics, more than 60 percent of Oilon's annually turnover is from foreign operations.

Oilon has three product categories: Industries, Oilon Home and Oilon Scancool. Industries products include industrial power plant and process burners. Oilon burners have the most advanced environmentally friendly technology. (Oilon 2015.)



Figure 2. Oilon's product categories

They can be served to different industries and industrial processes as well as fulfilling the most challenging needs from customers. Oilon also provides marine burners to ships and cargo ships as well as ecopower burners. Oilon Home product line is an expert in providing heating system solutions to homes and private properties. Oilon home offers heat pumps, solar heating, oil, gas, pellet burners, or combined energy solutions to end users. Oilon Home operates mainly in Finnish domestic market. Oilon Scancool is a leading provider of Cooling Plants and Industrial Heat Pumps. Scancool offers customers a turnkey solution in both refrigeration and heat pump technology. (Oilon 2015.)



Figure 3. Oilon burner, industrial and home heat pumps (Oilon 2015.)

Oilon has different strategy in different regions. In Finland, the domestic market, Oilon focus on home use burners, heat pumps. In the oversea market, Oilon works with agents, distributors, and its own sales force in different industries.

2.1.1 Oilon in China

Oilon used to be specializing only on burner products that had exported to China since 20 years ago. In 2011, Oilon acquired Scancool, a Finnish industrial cooling and heat pump manufacturer based in Kokkola. After the acquisition of Scancool Oy, Oilon manufactured its first industrial cooling and heat pump product in China in 2014.

Unlike Oilon's burner business in China, heat pump products are comparably new in Chinese market. Oilon's Heat pump department is facing the reality to determine a strategic for its new business in China. Currently, Oilon is following a simple business model. First of all, Oilon is promoting distributors or agents in Chinese market. Secondly, Oilon is trying to encourage the differentiation and cost performance in product's development and production. Thirdly, Oilon is dedicating into obtaining the majority market shares in specific market segments. For instance, generally the market segments are divided into industrial segment and commercial segment. Industrial segment includes food, dairy and drinks, oil processing, fishing industry, meat and poultry, preheating food, soy bean made food, phytoprotein, biotechnology and pharmacy, industrial ferment, and sugar business. Commercial segment includes eco-friendly buildings and Smart buildings, Industrial premises, High-end offices, and CDB. However, the heat pump market in China is fully occupied by numerous foreign and domestic companies already. Oilon is currently facing against challenges both internally and externally. Therefore, it is necessary to bring forth a new, efficient business model to operate in Chinese market. (Li, R. 25 Feb 2015.)

2.2 Project method and tasks

This thesis is a project-based thesis. Thereafter the structure of this project thesis is based on a zipper model. The development of this project is based on a logical order. The contact person in the case company was the heat pump department manager in Oilon Wuxi, who is responsible for all the heat pump business of the case company in China. There were interviews via phones and emails with the heat pump department manager. These interviews were necessary to make in order to understand the internal point view of the current situation in Chinese market and the current business model of the case company. The author was also able to access to the internal reports and analysis of the case company in order to understand the company strategy and market analysis. These critical facts also provided supports for the design of the new business model for the case com-

pany. There are also secondary research and analysis based on official published materials, articles and news. Most importantly, there is course study material applied in this thesis to support the new business model designed for the case company. Hence, the author most of the theoretical framework applied in this thesis was based on the course material.

Project Tasks (PTs)	Theoretical Framework	Project method	Outcome
PT1: Analyzing external environment in heat pump industry in Chinese market	PEST Competitor analysis Long-term objectives and motivations of the competitors Strategies of competitors	Interviews Internal and external document analysis	Give understanding of market situation and competitor analysis in heat pump industry in Chinese air-conditioning market
PT2: Analyzing the dynamic performance of the case company	SWOT	External document Published articles Outcome of PT1	Give understanding of internal and external dynamic performance of the case company
PT3: Categorizing stakeholders of the case company and selecting partners for the new business model	Stakeholder analysis Partner selection	Interviews Internal and external document analysis Outcome of PT1 and PT2	Partner selection for the new integrated business model based on the market situation and company dynamic performance
PT4: Forming and presenting the new integrated business model	Business model canvas	Author's design based on the outcome of PT1, PT2 and PT3 Feedback from management in the case company	The new integrated business model

3 Analyzing external environment in heat pump industry in Chinese market

As first step of creating a new business model for Oilon, it is incontestable that understanding of external environment of a business is significant. In this chapter, external environment in heat pump industry is discussed in two directions, the external factors by analyzing PEST in the heat pump industry in China and the competitors. External factors, in other words, represent current market situations in Chinese air-conditioning market. In this project, the current market situation will be analyzed by providing facts as well as statistics. Moreover, the author also applied several different theories to support the analysis of external environment in the heat pump industry in China.

Firstly, The author introduced theories that are applied in this chapter. Thereafter, an analysis of external factors and competitors are presented. As a result, the analysis of external environment in the Chinese market gives a good understanding of market situations, which helps the author to generate the ideas of developing an integrated business model for the case company.

3.1 PEST

PEST stands for Political, Economic, Society and technological. Typically, PEST is a handful tool for analyzing market condition, growths or declines. The combination with SWOT analysis, it is possible for companies to decide a potential or a direction for their businesses. In other words, PEST is a strategy model used on strategy making. PEST is applied in this thesis in order to help the author to analysis the political, economical, social and technological factors in Chinese heat pump air-conditioning market. (Arline 2015.)

Political	Economic
Ecological/environmental issues current legislation home market Future legislation International legislation Regulatory bodies and processes Government policies Government term and change Trading policies Funding, grants and initiatives Home market lobbying/pressure groups International pressure groups Wars and conflicts	Home economy situation Home economy trends Overseas economies and trends General taxation issues Taxation specific to product/services Seasonality/weather issues Market and trade cycles Specific industry factors Market routes and distribution trends Customer/end-user drivers Interest and exchange rates International trade/monetary issues
Social	Technological
Lifestyle trends Demographics Consumer attitudes and opinions Media views Law changes affecting social factors Brand, company, technology image Consumer buying patterns Fashion and role models Major events and influences Buying access and trends Ethnic/religious factors Advertising and publicity Ethical issues	Competing technology development Research funding Associated/dependent technologies Replacement technology/solutions Maturity of technology Manufacturing maturity and capacity Information and communications Consumer buying mechanisms/technology Technology legislation Innovation potential Technology access, licensing, patents Intellectual property issues Global communications

Figure 4. PEST (Segall 2014.)

Generally, PEST includes four elements: political, social, economic and technological factors. The political factor of PEST includes factors such as legislation of the market, environmental issues, future political view, governmental policies, funding and grant policies. The economic factor of PEST includes factors such as economy situation, trends, international economic situation, and market trade cycles. The social factor of PEST includes demographics, brand image, and ethical issues. The technological factor of PEST includes the development of competing technology, technology replacement possibilities, and potential innovations. (Arline 2015.)

3.2 Competitor analysis concepts and theories

Some company decision makers consider it is the best to stay with their own planning of the company instead of reach out and analyze their competitors. Some of them consider copying and mimicking business model of their competitors is the best solution. However, role of competitor analysis is somehow playing several more important roles than the perspective above. The competitor analysis can help management teams to understand their competitive advantages and disadvantages in the market. A good understanding of competitors gives company the information of competitor's past, present and future strategies against the market. A good competitor analysis provides also a useful informed basis to help companies to develop long-term strategies to fulfill the competitive advantages in the future. Competitor analysis is the forecast of the company's movement. (Riley 2012.)

When undertaking the competitor analysis, there are questions need to be considered. Firstly, it is importantly to define the main competitors in the market, the threats they create. The understanding of objectives and current strategies is necessary to analyze the strengths and weaknesses of competitors. (Riley, 2012.)

3.2.1 Long-term objectives and motivations of the competitors

Most of the companies operate based on their long-term corporative strategy. However, The long-term objectives alter and decide the long-term corporative strategy of the firm. To analyze a firm, it is the first step to be aware of its long-term objectives and motivations in order to understand how firms perceive and behave. Long-term objectives show not only the strategy of a corporation but also the motivations. For instance, if the current market of a company is perceived as the core value of its long-term objective, then the motivation of the firm to defend will be determinately. (Mooradian, Matzler & Ring 2014, 149.)

Mooradian, Matzler and Ring believe that there are some critical points is taking under consideration when analyze a long-term objectives and motivations of a firm (Mooradian, Matzler & Ring 2014, 150.):

- Vision and mission statements of a firm determine the goal of the firm. For instance, Vision statements represent the goal of a company. Vision statement is mainly present based on the future of a company. Mission statements are showing the objectives of the company. It means how the company will achieve the goal. Unlike vision statement, Mission statements are based on the present towards the future. In

another word, the Vision and mission statements are the goal and objectives of a firm. (Colm & Roslyn, 2014)

- Annual reports are reports provided to stakeholders to show the operations and financial situations in the company annually. (Allen, 2014) However, Annual report does not only indicate the behavior of the company the year's operation but also shows the company's view on the upcoming year. (Allen 2014.)
- Press releases are an effective way to monitor the behavior of a company. Press releases are well used when companies want to announce news to the public. For instance, changes in the company structure, big decision made. Its updating the newest information of a firm to the public.
- Analyst reports: Special researchers and analysts usually write reports upon an industry or a company in order to show the long-term objectives and goals of a firm. It usually shows the prospective of the expert researchers and analysts to an industry or to the company. However, sometimes analyst reports are over optimistic since the analysts are writing report to support company's decision to the public. (Zimmerman 2014.)
- Presentations and speeches of executives: Sometimes presentations and speeches from the executives of a firm indicated the prospective of a company. For instance, It is usual for company like Apple to give conference meeting about new product launching, strategy of the firm and objectives in the future. Nevertheless, presentations and speeches of executives do not only contents information related to them, but also the information on the industry. Following the presentations and speeches of executives is one of the easies ways to follow the trend of one company.

3.2.2 Strategies of competitors

Through the analysis we perceived previously, we should be able to finalize a strategy portfolio to show the overall view on the competitors. The portfolio includes the Customer Value Analysis, Portfolio Analysis, Growth Strategy, Marketing Approach, Offensive Strategy and Defensive Strategy. The portfolio indicates competitor's priorities in order to make strategic decision. (Mooradian, Matzler & Ring 2014, 151.)

Portfolio Analysis: Portfolio Analysis is a analyzing tool by concentrating on a company's products or business services. The analysis will be taken place on how these "strategic business units" may help the firm to get competitiveness in the market. The outcome of a

Portfolio Analysis indicates the final direct investment strategy of a firm towards all of the products. Portfolio Analysis provides you a general idea of the strategic goals and moves of your competitors. (Mooradian, Matzler & Ring 2014, 151.)

Customer Value Analysis: By generating a Customer Value Analysis from competitor's point of view, and analyzing the product positioning from the Customer Value Analysis, it is not hard to predict the pricing strategies and quality control strategies. (Mooradian, Matzler & Ring 2014, 151.)

Growth Strategy: Analyzing the Growth Strategy of a firm provide us an idea of how the firm will be developing and launching its products, penetrating the market. (T Mooradian, Matzler & Ring 2014, 151.)

Marketing Approach: Analyzing the marketing approach of a firm helps us to generate the customer segments of our competitor. (Mooradian, Matzler & Ring 2014, 151.)

Offensive Strategy and Defensive Strategy: Offensive Strategy indicates the attacking strategy a firm is using. Defensive Strategy indicates the defensive moves and decision of your competitor when facing an attack from other companies. (Mooradian, Matzler & Ring 2014, 151.)

3.3 Researching and analyzing market information and environment

The research and development of heat pumps begins in 1912. However, it was taken consideration as one of the main energy supply method in 1970s when the first energy crisis happened. Until now, heat pump has been applied widely in Japan, North America, and Scandinavian area. In 1980s, the development of heat pump in China begun in University of Tianjing and Tianjing Business College. (Zhang 2003.) With the booming economy of China, the demand of energy supply increased rapidly. China is facing with serious pollution created by the traditional energy supplies; therefore, development of a new eco-friendly energy supply solution became very important.

After 14 years development of Heat since 2000, the sales amount of heat pump in China raised rapidly. There are more than 120 manufacturers of heat pump are operating in the Chinese market. There are estimated 20 big players in the market. There are more than 1000 design, installation and construction companies in the heat pump industry. By end of 2010, the total sales in heat pump industry is about 2 Billion Yuan. By the end of 2010, more than 170 million square meters of construction areas has used heat pump products.

Rapidly growth of market size brings not only growth on sales, but also large competitions.
(Oilon 2010.)

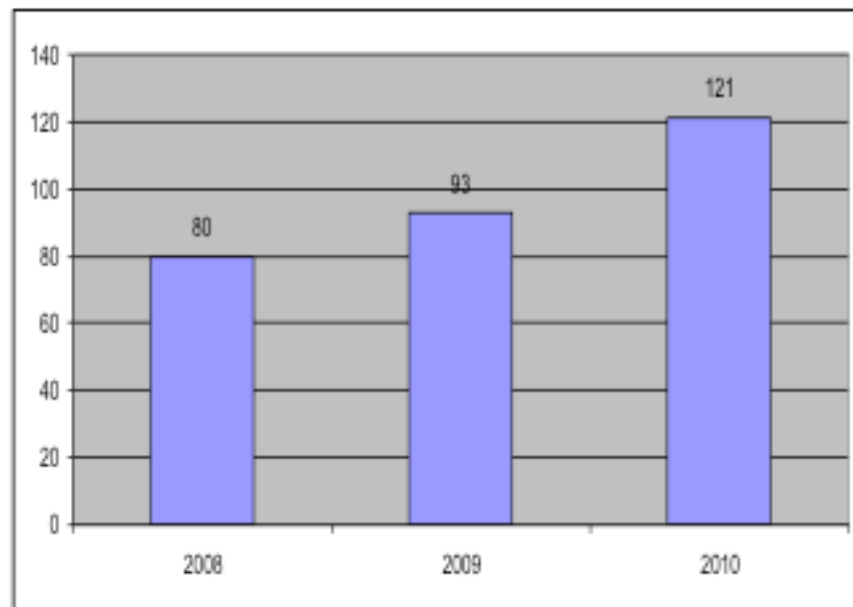


Figure 5. The amount of GSHP manufacturers in China (Oilon 2010.)

As mentioned above, after 8 years of the start-up stage since 2001, The Heat Pump market turned into a high-speed developing mode. Due to the booming of economy in China in 2008, there is a deficit of energy supply. Therefore it stimulated the demand of developing new type of energy supplies. As well as the increasing level of pollution in China, The Chinese government decided to support both financially and politically to eco-friendly products such as heat pump products. Hence, heat Pump became one of the most popular new energy solutions in the market. Numerous players had entered the market, thus created a huge competition. (Li, R. 3 Nov 2014)

In the heat pump industry in China, the industry is filled with different types of manufacturers. There are 20 % of foreign investment, 8% of foreign-domestically joint venture, 20% of private owned companies, 20 % of Joint stock and 32% of others. (Oilon 2013.)

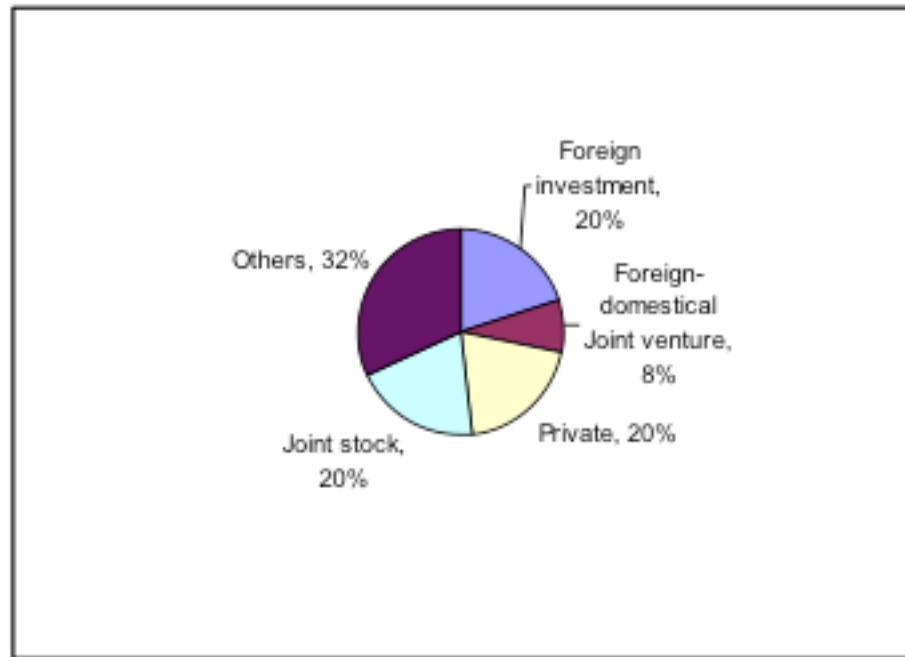


Figure 6. Enterprise types of heat pump manufacturers in Chinese air-conditioning market (Oilon 2010.)

The application of heat pump is much differentiated from western market. Most of the heat pump products are applied in private owned cottages and small houses in western countries. However, most of the application cases of heat pumps in China are big facilities such as factories, big department buildings. There is only less than 5% of the market of small private owned houses. (Oilon 2013.)

The demands and applications of heat pumps are also different regarding to the location of the area. There are more than 60% of the heat pump applications located in the north of China. There are 17% in East China, 9% in Northeast, 8% in Northwest and only 6% in South of China. (Oilon 2013.)

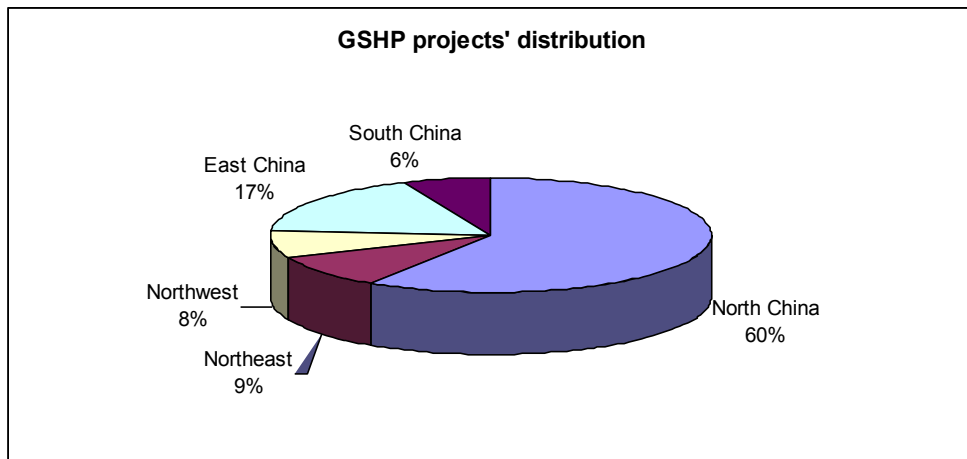


Figure 7. Heat pump project distribution (Oilon 2010.)

Nevertheless, with rapidly increasing sales of heat pumps in China, The product is facing a lot of major challenges. For instance, the lifetime of heat pump products in China are estimated as 20 to 25 years. In reality, the Heat Pump products last only 10 years. In some cases, the whole heat pump system will start to fail and breakdown. The major reasons are as follows. Firstly, the parameter selection before the designing phase is usually not accurate. Thermal response tests are required before the construction and installation. However, in most of the cases, parameter selection will not be tested in order to choose the reasonable thermal response index. The design institute or manufacturers will select a estimated value of thermal response to apply to the ongoing project. Secondly, in the construction phase, after drilling the pump wells, the soil will be backfilled into the same place. However, it is not a simple process of backfilling the soil. Thermal conductivity of each layer of earth will have to be considered. Thermal conductivity materials should be back-filled together with the original soil to make sure the level of thermal conductivity. Those thermal conductivity materials should have crack resistance and anti-permeability in order to ensure the durability of the heat pump and protection of the underground water. In most of cases, contractor simply fills the original soil to the pump wells without any further processes. Consequently, the backfill will soon be cracked due to the expansion and contraction to cause the thermal conductivity decreases rapidly. (Li 2013.)

3.4 Analyzing competitors in Chinese air-conditioning market

Heat pump industry in China is in a very niche market. The market segment of Heat pump products is categorized into the air conditioning market. Therefore, any type of air conditioning product manufacturer would be a potential direct or indirect competitor of Oilon's.

The identified potential competitors of Oilon's are as follows,

3.4.1 Trane

The company history of Trane began in 1885 as a company who provides manufacturing and sales of heating specialties and the design and distribution of Trane heating system to the market. The successful launch of the condensation pump line by the company in the year of 1918 established its potential in the heating pump market. Trane started its exploration in the air conditioner industry by launching its first air conditioner in the year of 1931. Several years later, Trane successfully altered to provide large building air conditioning system. As of the year of 2007, the annual air conditioning sales and services of Trane topped \$7.4 billion, which made it become the world leader in the air conditioner system. (Trane 2013.)

Trane placed significant emphasis on reliability, high quality and advanced innovation. Trane is aiming to provide customers with high performance than anywhere else. Its innovation approach provides customers with the space that are more reliable, comfortable and efficient which in return generates huge productivity and greater profitability for the company. In addition, Trane always adopts the right methodology. By conducting a comprehensive energy audit via a thorough performance analysis, Trane is able to monitor each building's energy use to make sure the system it provides high performance. (Trane 2013.)

What Trane offers to customer is not equipment but hot water. They have been trying to create the image to offer their customer the supply of hot water but selling them the products. By providing the concept of supplying hot water instead of heat pumps to customer, it makes customer believe in Trane's product since it ensures the durability and liability of the products.

To Oilon, it is important to understand creating good image of their products is necessary. By creating the concept of supplying hot water to customers instead of selling them the equipment could help Oilon gain more trust. Due to the challenges in the Chinese market, the lack of legislations and competition, a trust worthy system should be build between customers and manufacturers. It is not good enough only provide equipment to customers but to provide a heating or cooling solution to them.

3.4.2 Carrier and Midea

Carrier is a world leader in heating, air-conditioning and refrigeration solutions. The company was founded in 1902 in the US, with 43,000 employees and 1.4 Billion Dollars turnover. Carrier operates in more than 180 countries. Carrier's business in China started in 1930s. In early 80s, Carrier official entered Chinese market as the first Air-conditioning equipment manufacturer. Carrier started a first joint-venture company in China in 1987. (Carrier 2015.)

Midea is one of the largest air-conditioning equipment manufacturers in China. Midea was founded in 1968. Over 40 years of development, it became a enterprise with 18.7 billion Dollars turnover and 126000 employees in China and overseas. (Midea 2015.)

In 2015, the air-conditioning market is not be seen as optimistic. Therefore, Carrier and Midea decided to start a strategic cooperation by purchasing 30% of Midea's shares. Unlike household air-conditioner market that Chinese enterprises take more than 80% of the global market, American brands like Trane, Carriers and York maintains more shares in the central air-conditioning market. Similar as the strategic cooperation between Hitachi and York, The strategic cooperation between Carrier and Midea helps each other to maintain larger market share. Instead of competing, a joint venture could potentially benefits both enterprises in a long run. (South Daily 2015.)

The new integrated business model is also designed based on the strategic cooperation. By developing strategic cooperation between partners in the business model, it will provide mutual benefits to all the partners in multiple ways.

4 Analyzing the dynamic performance of the case company

With a good understanding of surrounding environment of the case company by analyzing the external factors and competitors, the author is able apply these information to analyze the dynamic performance of the case company. Dynamic performance of a company indicates how a company performs in a business environment or an industry. Usually there are different tools could help to analyze internal and external dynamic performance of a company. As a result, Internal dynamic performance of a company will be applied into the new integrated business model development. Internal performance dynamic performance indicates the advantages and disadvantages such as abundance of financial conditions, satisfaction of human resources, quality of product, know-how of technologies and brand image. As well as the internal dynamic performance of a company, the external dynamic performance of a company also generates the development of the new integrated business model. External dynamic performance indicates advantages and disadvantages against competitors, trends of the industry, and benefits of the current governmental policies. More importantly, the dynamic performance of the case company provides the basis of partner selection for the new integrated business model development.

4.1 SWOT

The SWOT analysis is a very useful tool in order to understand and make decisions in a business environment. SWOT stands for Strengths, Weakness, Opportunities and Threats. The Strengths and Weakness are considered as internal factors, thus Opportunities and Threat are considered as external ones. SWOT analysis measures business unit and business ideas. SWOT analysis can be a tool for a company, a method of sales distribution, a product or brand, a business idea, a potential partnership, an investment opportunity. (Gregory 2010.)

	Helpful	Harmful
Internal	Strengths	Weakness
External	Opportunities	Threat

Figure 8. SWOT Analysis (Gregory 2010.)

In this project, SWOT is applied in order to analyze the dynamic performance of the case company. In this chapter, the author analyzes the internal dynamic performance of the case company, which includes the strengths and weaknesses of the case company. Strength and weakness will be analyzed typically in several perspectives: financial resources, physical resources, human resources natural resources and current processes. External dynamic performance included opportunities and threats are also analyzed. Opportunities and treats are also analyzed in several perspectives: market trends, economic trends, fundings, relationships and political positions. (Goodrich 2015.)

4.2 Internal and external dynamic performance

From the internal view of the case company, Oilon is not a new player in Chinese market. The burner products had entered Chinese market almost a decade ago. Oilon had presented a promising brand of its burner products to China and to the world. Therefore, one of the strengths is that the Chinese market is not unfamiliar with Oilon as a brand. However, it would also become a weakness since the burner products are well known in Chinese market. Since Oilon burner has strong brand image to customers. Therefore, it is a strong signal that Oilon is a burner producer rather than heat pumps. It might create difficulties on the brand recognition for customers. Therefore, a strong and tight relationship is required in Oilon's heat pump business. The product has to present correctly to the right customer segments. From the human resources point of view, the heat pump department is relevantly small compare to other department since the heat pump products were

launched 2 years ago in Chinese market. Therefore it is important to use external resources to help the case company to increase market share rapidly.

From the external view of the case company, as the result of analysis, the market of heat pump industry and air-conditioning market is increasing due to the booming of economics of China. However, the market is filled with different foreign, joint venture, state-owned and private heat pump manufactures. As mentioned in the pervious chapter, due to the increasing level of pollution, the government is trying hard to supporting high-tech green technology company by giving financial supports and preferential policies in Chinese market. Therefore politically and financially, due to the hostile environment situation in China, the government is keen on changing the environmental issues by applying more advanced technologies especially in field of heating supplies. Therefore Chinese government has strong support to high-tech enterprises such as Oilon.

5 Distinguishing partners from stakeholders

External business partner is an undeniable important element in a successful business model. Companies will not survive in the business environment without forming partnerships with others. On the other hand, all the individuals or companies will need external business partners. Business partner stands for individuals or companies who get involved in certain level with the other business parties. The word business partner can be referred as a person, a company, or an organization. In another word, when two parties have business involvement and benefits from the involvement, they are business partners. (Business Dictionary 2014.) A successful partnership is as alike as marriage. A successful partnership will help business to grow, to ferment. It is important to distinguish your potential partner out of stakeholders of your business. There are narrow mapping and broader mapping of stakeholders. Traditionally, only direct entities such like employees, suppliers are considered as stakeholders of a company. However, in most of the cases, indirect entities such like competitors, government should be also considered as a stakeholder of a company. In this chapter, the author analyzed and categorized stakeholders of the case company in order to select potential partners for the new integrated business model.

Oilon as a new player in Heat Pump industry, it is undeniable that partnership is one of the key elements to its business. The business development for Oilon Heat Pump products requires collaboration from many dimensions when facing to the market.

5.1 Stakeholders in theory

The concept of stakeholders became the key to understand the relationships in business activities. Stakeholder is not only about external investors, stockholders or internal owners of the company, but also all the parties who affects by the business action by the company. A stakeholder is referred to an individual or a group of people takes stakes in a business. Archie and Ann categories 3 types of stakes: Interest, Right and Ownership.

Types of stakes			
	An interest	A right	Ownership
Definitions	When a person or group will be affected by a decision, it has an interest in that decision	<p>1. Legal Right: When a person or group has a legal claim to be treated in a certain way or to have a particular right protected.</p> <p>2. Moral right: When a person or group thinks it has a moral or group thinks it has a moral or ethical right to be treated in a certain way or to have a particular right protected.</p>	When a person or group has a legal title to an asset or a property

Figure 9. Types of stakes (Carroll & Buchholtz 2006, 67.)

An interest refers to when an individual or a group will be affected by the decision made by the company. The individual or group will be therefore interest in the decision. A Right refers to an individual or group has legal right bindings with the company accordingly. It also refers to when an individual or group are morally connected with the company affected by the company. An Ownership refers to when an individual or group has ownership of the company in different forms. (Carroll & Buchholtz 2006, 68.)

Referring to Carroll and Buchholtz, the view of firms has shifted from traditional production view of the firm to managerial view of the firm, yet the stakeholder view of the firm. However, some firms are still seeing managerial view of the firm as their main perspective of stakeholders. (2006,68)

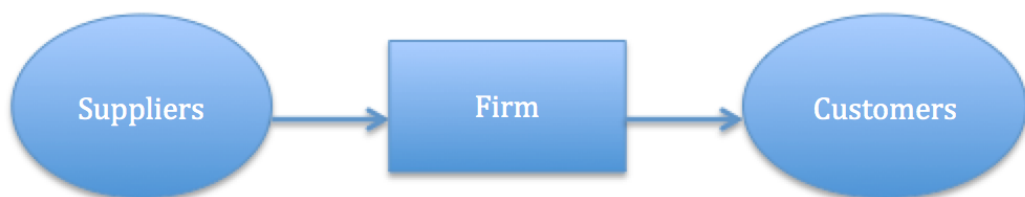


Figure 10. Production View of the Firm (Carroll & Buchholtz 2006,69.)

In the perspective of Production View of the Firm, only suppliers and customers are seemed as stakeholders. This perspective is a simple limited mono-view on stakeholders. The production View of the Firm only takes the production into account when considering

stakeholders to the firm as a whole. Although superliners and customers run an important role in the value chain of the company, there are still numerous parties should be considered who are affecting by the decision made by the company. However, it is understandable that at one time, due to the undeveloped concept of business, owners of the company considered of stakeholders only as those suppliers of the material, goods, services and customers who bought from the company. (Carroll & Buchholtz 2006, 68.)

Through the growth of the company, management of became the top priority in business development. An effective management of a company alters the future of the company accordingly. Therefore the view of the firm has shifted to Managerial View of the Firm.

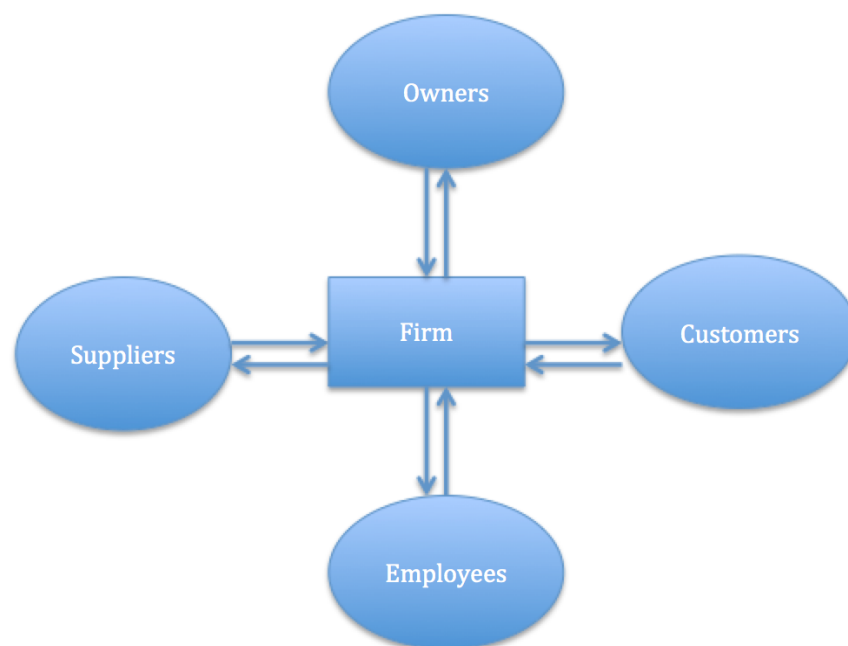


Figure 11. Managerial View of the Firm (Carroll & Buchholtz 2006,69.)

The Managerial View of the Firm has more dimensions than Production View of the Firm has. The Managerial View of the Firm covers both internal and external interests. The Managerial View of the Firm concentrates more on the integration of management of the company and production of the company as the outcome. (Carroll & Buchholtz 2006, 68.)

Due to the globalization and the modernization of business activities, decision makers start to realize the importance of stakes in internal and external parties. However, some of the decision makers have not yet realized the importance of viewing their firms from the stakeholder perspectives. Archie and Ann believe that the situation will change by the time passing. Before the decision makers start to perceive the firm from the stakeholder point

of view, the management thinks the stakes in the firm. However, with the thinking of the Stakeholder Views of the Firm, individuals or groups outside of the company who thinks they have stakes in the firm. From the figure below, stakeholders are divided into some major categories: Government, Employees, Community, Owners and Consumers and competitors. These 5 major categories, also called the Primary Stakeholders, include sub-groups. For instance, Community category includes general public, Environmental groups, and Civic groups. Furthermore, there are Primary and Secondary, Social and Non-social stakeholders, as Archie and Ann referred to Wheeler and Sillanpää in their book. Primary Social Stakeholders are individuals or groups who directly linked to the firm, such as owners, investors, employees, customers and partners. Secondary Social Stakeholder may not receive direct influence from the firm. However, it may indirectly influence by the decision and action of the firm. For instance an individual or group may be affected by the firm in reputation. (Carroll & Buchholtz 2006, 70.)

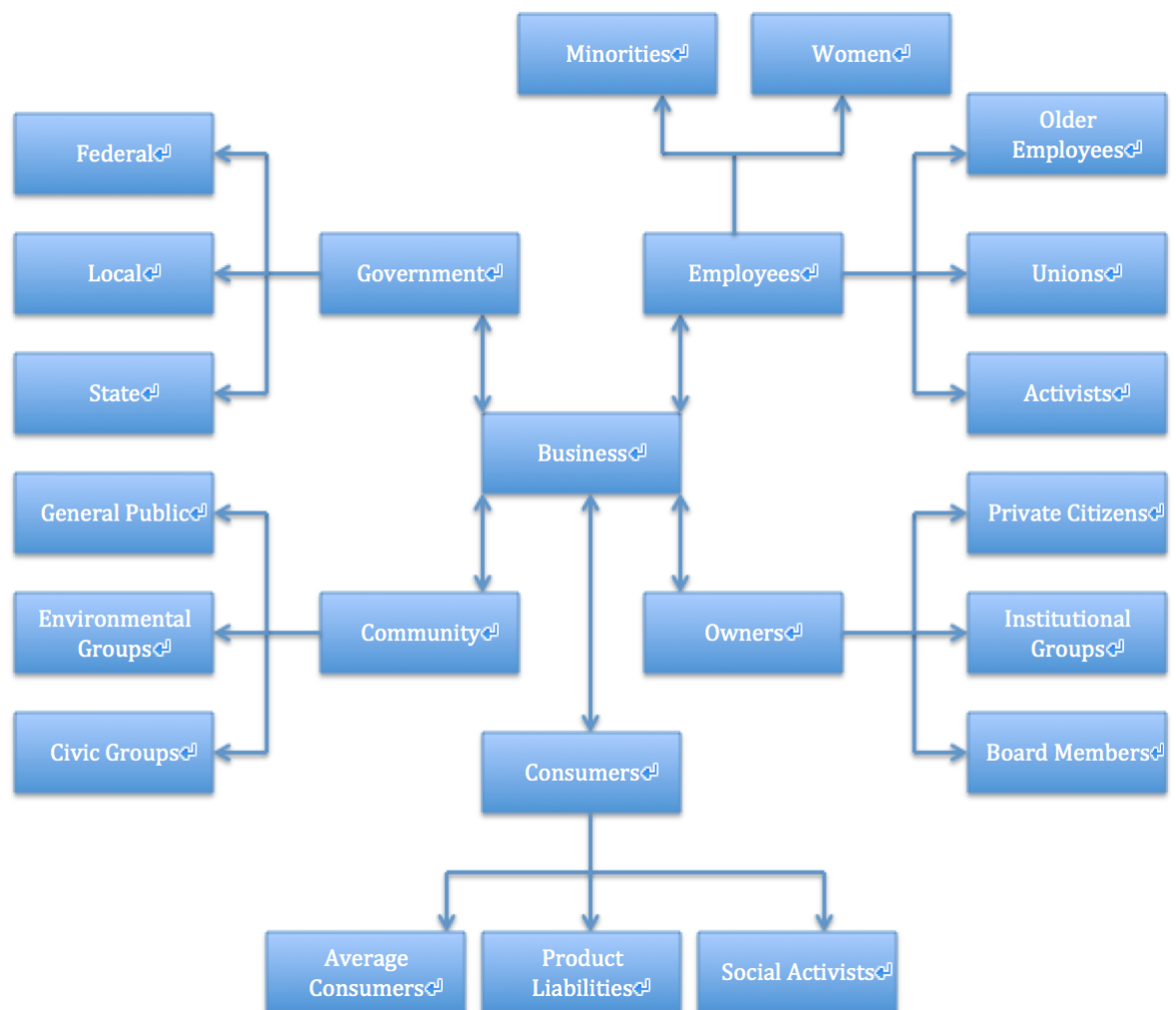


Figure 12. Stakeholder Views of the Firm (Carroll & Buchholtz 2006, 70.)

5.2 Stakeholders to partners

The Heat Pump market in China has multiple players who are towards the same expectations with Oilon. These players share the same interests, have a legal right or moral right to Oilon, or have the ownership of Oilon in any kind. When we look at the stakeholders' map, we need to think more than a simple value chain contains only suppliers and customers; Owners and employees should be also considered as stakeholders in Oilon's business model. Referring to Archie and Ann's stakeholder View of the firm, the segments of stakeholders will be divided into government, employees, community, owners and consumers. However, this thesis is mean to develop a new business for Oilon in order to help the new Groud Source Heat Pump products to adapt in Chinese market. In this thesis, we will focus on external factors since the desire is to design a new business model for promoting Oilon's new products by providing mutual benefits to integrate external parties into current business model. Therefore, only external factors, such as Government, Community, and Customers, are the stakeholder categories will be taken consideration.

5.2.1 Government as an organization and a customer

Chinese government runs an important role in both public sector and private sector in business activities. Firstly, Before 1990s, most of the companies, enterprises, factories, and organizations are state-owned. Due to the special social structure, state-owned companies - the government of China employs the most of the populations of China. The government led the business activities as well as influenced on all the other sectors. In the late 1990s, due to the Reform and Open-up Policy made by Xiaoping Deng, the former prime minister of China, China sold numerous state-owned enterprises as well as privatizing those companies. Since then, the non-state-owned enterprises became the motor of Chinese economy. From 1999 to 2009, the turnover of state-owned enterprise in industrial sector dropped from 49% to 27%. From the same period of time, the state-owned enterprises owned industrial capital dropped from 67% to 41%. (Gao, 2010.) However, the government still maintained control to some largest enterprises especially in the monopolized industry, such as electric power, telecommunication, railway, civil aviation, postal service, public utilities, oil and military industries. Of which public utilities includes water supply, waste recycling, sewage treatment and more importantly district heating. District heating companies operates monopolistically in China. (The Economist, 2011.) Oilon is a heat pump manufacturer, but also expected as an indirect energy provider. Traditionally, The heat supply of factories, plants, and commercial premises are Central Heating provided by the state-owned district heating companies. These State-owned district heating companies are indirect competitors to Oilon since customers may choose Heat Pump products over the traditional state-owned district-heating providers. In the new integrated

business model designed for Oilon, it is alternative for Oilon to build up a collaborative relationship with current district heating providers by providing mutual benefits in the business model which will be presented in the later chapters. By developing partnerships with state-owned district heating companies, Oilon could avoid unnecessary indirect competition and increase sales from huge customer bases of state-owned district heating companies at the same time.

In other hands, most of the Oilon heat pump products in Chinese market are for industrial use. As mentioned above, the government still maintained controls to some of the largest enterprises. The factories of the enterprises have high demand of heating, waste heat recovery where Heat Pump product can be applied. For example, China National Gold Group Corporation, a current customer of Oilon, is a state-owned enterprise that has over 100 subsidiary companies and factories. Once the system and the mechanism of the state-owned companies accepted a product, it usually means a massive purchase. It is important to maintain good relationships with state-owned companies as well.

Secondly, governmental organizations such as technology bureau, environmental protection agency, runs a very important part in business activities due to the special social structure and system. Unlike the Laissez-Faire Policy (Frey, 2015.) of the government of the United States, the Chinese Governmental Economic Management policy is more aggressive. The Chinese Governmental Economic Management policy is meant to maintain a basic balance and optimize the economic structure in order to achieve rapid economic growth and full employment. (Wang, 2009.) Therefore, Chinese government has more intervene into private sector. For example, as well as TEKES in Finland, Technology Bureau is also dedicated into promoting businesses related to Eco-friendly enterprises. There is current funding policy that is providing promotional funding's to High-tech Small and Medium size enterprises. The Small and Mid-sized Enterprise Technology Innovation Fund is approved by the state department of China in 1999. The Innovation Fund is to give grants, loan and capital investment to help the development of SME technological innovations, especially to promote the process of High-tech industries. The Fund is managed by Small and Mid-sized Enterprise Technology Innovation Fund management center, which is under Ministry of Technology and Technology bureau at city-levels. (Ministry of SME Technology Innovation Fund Management Center 2015.)

5.2.2 Financial institute

It is often a customer make a contract with a phone operator and pay monthly when a customer buys a new phone. However, manufacturers such as Oilon try to avoid leasing

the products to its customers. Especially the Heat Pump products, it is more of a project based product. When customer purchases a set of products, it needs to be specific and precise measurement and evaluation based on the information of the premises. At last, there will be a specific analysis reported how much power (Kilo Watts) the set of product will achieve in the premise. It will also be reported after certain years the customer will start to gain profit out of the pumps if they chose to use Heat Pump product over the traditional gas or coal heating method. For such project, tendering, designing, manufacturing, and installing required long period of time. Therefore, unlike service sector, machinery manufacturer like Oilon need their capital flow to be faster in order to start next production period. (Li, R. 12 Dec 2014.)

However, what creates conflicts is that the best option for the customer is to lease the product from Oilon and make payment dividedly. In this way, it is good for customers to avoid huge investment in the beginning since the Heat Pumps could be twice of the price of the traditional sets; also it guarantees the work efficiency of the products. As mentioned in the external environment chapter, The Heat Pump market is lack of regulation. A lot of customers suffer from bad investment of Groud Source Heat Pump products in their facilities. Especially the design and installation of Heat Pump products are irreversible. Once the pump wells are drilled, it is impossible to redo the work to increase the work efficacy of the product. Consequently, customers are usually skeptical and very careful about choosing those Heat Pump products in Chinese market. (Li, R. 12 Dec 2014.)

Nevertheless, Financial institute like commercial banks, and Insurance Companies, they are usually the stakeholders in the most of the business activities. Commercial banks are banks that accept deposit and provide security to help their customers. In another hand, expect accepting deposit, commercial banks also give loans to individuals and companies to help then in expanding their businesses. (Butt 2015.) However, most importantly, commercial banks also provide bank guarantees to companies. "A bank guarantee enables the customer to acquire goods, buy equipment, or draw down loans, and thereby expand business activity (Wilcox 2015)." Bank guarantees serves the same function as an insurance company. For instance, customers may seek bank guarantee from a bank or get an insurance contract with an insurance company. Both of which could grand customer a installment contract which allows customers to pay dividedly. However, in another hand, Oilon will receive full payment from banks or insurance company. Hence, Financial institute is an evitable partner in the new integrated business model in Chinese market.

5.2.3 Design institute

Before the institute reform in later 80's, Design Institutes were usually state-owned or colleges hold institutes. After the reform, Design institutes became corporate enterprises and companies in order to adapt into modern business structure. Usually civil design institutes are private owned, and industrial institutes are still state-owned companies. There are 4 ranks of design institutes, from A to D. Large-scale projects could only be designed by A-level design institutes. (Baiké, 2015.)

Especially for Oilon, cooperating with a promising design institute is requisite. First of all, design institutes with good reputation will help companies to win the tender in a project with a better chance. For example, some projects of Oilon are cooperating with a Swedish design institute in China. In the intergraded business model, a good design institute is a very precious chain in the business model when approaching to a customer.

6 Integrated business model

Integrated business model is a strategy to combine the interests, values channels, customers, activities and resources of all partners as a chain, in order to align operations of all the partners to achieve profit maximization within the business model. (Rouse 2015.) The goal of an integrated business model is mean to help partners to gain benefits that cannot be achieved individually. The integrated business model also lowers the risks and uncertainties of all parties. Business Model Canvas provides us direct and visual perspectives of the mechanism of the business model. Implementing the business model canvas helps to analyze the possibility and feasibility of the new business model designed for Oilon. The author implemented the business model canvas to analyze how could Oilon and its partners maximize their revenues in a more efficient cost structure, by using their competitive advantages such like key resources, key activities to bring values to their customers via different channels.

In this Chapter, the author combined the outcomes from the pervious project tasks to develop the new intergrated business model for the case company. The new integrated business model was developed based on several different aspects, such as external environment of the market and potential partners for the integrated business model. The operation of the integrated business model is high based on partners. By utilizing different partners, the case company will be able to approach to new customer segments, developing new customer relationships with new channels, provide new values to customers and apply new activities to support its value proposition.

6.1 Business Model Canvas

The meaning of business model is well explained by Osterwalder and Pigneur “A business model describes the rationale of how an organization creates, delivers, and captures values.” (Osterwalder & Pigneur 2010) Business model is a plan that helps company to increase revenue and improve the company operations. Nevertheless, business model is more than a description of how company gains profit and spend expenses. It is, however, a model including components and function of a business. (Ovans 2015.)

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
KP	KA	VP	CR	CS
	Key Resources		Channels	
	KR		CH	
Cost Structure			Revenue Streams	
CS			RS	

Figure 13. Business Canvas (Osterwalder & Pigneur 2010.)

Business Model Canvas includes 9 building blocks: Customer Segments, Value Propositions, Channels, Customer relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships and Cost Structure.

- **Customer Segments:**

Customer Segments block indicates the group of people and organizations that company is aiming to reach. It is certainly the soul elements among all the building blocks in the business model. Customers are always the key to all the enterprises and firms. No one can survive without customers.

To be more efficient, customers are normally divided into segments in order to have easy access control. The segments of customers are distinct with behaviors, needs and etc. Companies must have priorities to serve to different segments. Once the priorities and decisions are made, a business model could be designed. (Osterwalder & Pigneur 2010, 20.)

- **Value Propositions:**

Value Propositions block indicates the products or services of the company that creates values to its customers. Value proposition of a company attracts and retains customers. The purpose of a company's value proposition is to satisfy customer needs.

Value Proposition usually provides customer the newness, performance and customization. Some of the Value Proposition provides satisfaction, which are entirely new to customers since there was no such offer before. Performance has always been a common strategy to create values. For example, in the PC industry, manufacturer has always been trying to improve the performance of their product to offer to their customers. Customization is mean to create values by providing tailoring products and services to satisfy the specific needs of customers. However, economies of scale should always be considered. Value can be created to customers by providing good design and good brand image, offering lower prices better, accessibility and usability. (Osterwalder & Pigneur 2010, 23.)

- **Channels:**

Channels block indicates the way companies communicate and reach out with their customers in order to provide their value propositions. The Channels block includes commu-

nications, distributions and different sales channels. Channels block as an essential element in a business model, is the transmitter of company's Value proposition and Customers. In fact, Channels could increase awareness of certain products and services, help customer to perceive company's value proposition, provide customer a way to buy products, deliver value proposition to customers and provide customer a post-purchase support. (Osterwalder & Pigneur 2010, 24.)

Channel Types			Channel Phases				
Own	Direct	Sales force	1. Awareness	2. Evaluation	3. Purchase	4. Delivery	5. After sales
		Web Sales					
Partner	Indirect	Own stores					
		Partner stores					
		Wholesaler					

Figure 14. Channel types (Osterwalder & Pigneur 2010.)

● Customer relationships

The Customer Relationships block indicates different types of relationships between companies and their customer segments. When establish a relationship, A company should always determine customers by segments, thus to establish different types of relationships based on the segments. These relationships are usually driven by three motivations: Customer acquisition, customer retention and boosting sales (upselling). Companies and firms could apply different strategy based on different motivations. (Osterwalder & Pigneur 2010, 28.)

● Revenue Streams

The Revenue Streams block indicates how profit of a company is made from different customer segments. If customers were milk cows in a business model, Revenue Streams would be its milk. Companies must determine several Revenue Streams from different Customer Segments. Different pricing strategy and mechanism should be designed based on segments. There are two possible Revenue Streams could be designed in a business model (Osterwalder & Pigneur 2010, 30.):

1. Transaction Revenues: Receiving outcomes from one-time customer payments.

2. Recurring Revenue: Receiving outcomes from ongoing payments or post-purchase customer support.

Pricing Mechanism	
Fixed Menu Pricing Predefined prices are based on static variables	Dynamic Pricing Prices change based on market conditions
List price: Fixed prices for individual products, services, or other Value Propositions	Negotiation: Price negotiated between two or more partners depending on negotiation power and/or negotiation skills
Product feature: price depends on the number or quality of Value Proposition features	Yield management: price depends on inventory and time of purchases
Customer segment: price depends on the type and characteristic of a customer segment	Real-time-market: Price is established dynamically based on supply and demand
Volume dependent: Price as a function of the quantity purchased	Auctions: price determined by outcome of competitive bidding

Figure 15. Pricing Mechanisms (Osterwalder & Pigneur 2010.)

● Key Resources

The Key Resources block indicates the types of assets that is required in a business model or in a company's function mechanism. Key resources are necessary to have in all type of business models. They are the generator to create the Value Proposition, enter the market, develop relationships with customers and most importantly, make revenues. Certain type of resources is required based on the enterprises and their business model.

Key resources are categorized into physical, financial, intellectual, or human resources. These resources can be owned directly by the company or provided by its partners. (Osterwalder & Pigneur 2010, 34.)

● Key Activities

The Key Activities block indicates activities of a company in a business model. These activities are determined as the most important ones that make sure the business model functions effectively. These activities, as Key Resources does, also create Value propositions, enter the market, develop relationships with customers and most importantly, make revenues. Key activities are required based on the type of business model. (Osterwalder & Pigneur 2010, 36.)

Key Activities could be divided into categories: Production, Problem Solving and Platform. (Osterwalder & Pigneur 2010, 37.)

● **Key Partnerships**

The Key Partnership block indicates the necessary network between suppliers and partners within a business model. Consolidating partnerships in a business model could help the company to optimize the business mechanism, lower the cost, minimize the risk and somewhat acquire resources. (Osterwalder & Pigneur 2010, 38.)

Osterwalder and Pigneur believes that there are four types of partnerships in a business model (2010, 38.):

1. Strategic alliances between non-competitors
2. Strategic partnerships between competitors
3. Joint ventures to develop new businesses
4. Buyer-supplier relationships to assure reliable supplies

Nevertheless, Distinguishing partners from stakeholders requires companies to understand the motivation of their partners. The most basic partnership is buyer and seller model. However, when the partnership is designed, the optimization and economy of scales has to be understood beforehand. Some partnerships are formed because of the reduction of risks and decreasing of uncertainties. Both parties benefit from such cooperation and collaborations. The last type but not least possible partnerships are formed due to the acquisition of particular resources and activities. For instance, a company owns resources that are demanded by another. (Osterwalder & Pigneur 2010, 39.)

● **Cost Structure**

The Cost Structure block indicates all the necessary and unnecessary costs within the business model when operating their business activities. For instance, delivering and recreating the Value Proposition, developing Customer relationships, making revenues, requires both viable costs and fixed costs at all time. From determine the Key Resources, Key Activities and Key partnerships could help the company to finalize the cost structure within itself and within the business model. (Osterwalder & Pigneur 2010,40.)

Alexander and Yves believes that Cost Structure could be minimized in business model. Cost Structure of a business model could be Cost-driven or Value-driven. (Osterwalder & Pigneur 2010, 41.)

6.2 Current business model of the case company

Heat pump as a new launched product, the case company is current using a traditional business model in Chinese market. Since the heat pump department is relevantly small in scale, the case company decided to develop agents and distributors in Chinese market. The strategy for developing agents and distributors is precise. The case company intends to develop agents and distributors city by city rather than a big geographic region. The main purpose is to use different type of agents and distributors to focus on different municipal areas since the Chinese market is diversified. (Li, R. 25 Feb 2015.)

Key Partners	Key Activities	Value Propositions	Customer Relationship	Customer Segments
Agents, Distributors	Heat pump production, R&D	Ground source heat pump products, Oilon Brand	Acquisition Retention	Stated-owned firms, Private companies
	Key resources		Channels	
	Brand Finnish know-how		Sales force, Agents, Distributors	
Cost Structure			Revenue Streams	
Manufacturing, Marketing, After sales service cost			Profitable heat pump products and spare parts sales	

Figure 16. Current business model

The current target customers are state-owned firms and private companies including subsidiary factories and facilities. The case company maintains relationship with their customers by acquisition and retention of customers by its own sales force, appointed agents and distributors. In order to acquire and retain customers, the case company provides heat pump products as its main value proposition by manufacturing heat pump products and R&D. Nevertheless, the value proposition provided to customers requires maintaining excellent brand image and developing promising Finnish know-how in heat pump prod-

ucts. The key partners in current business model are municipal agents and distributors. In order to maintain key activities and key resources, the most important cost structures of the case company are costs in products manufacturing, marketing costs and after sales service costs. Revenue and profit structure in the current business model are generated by sales of heat pump products and spare parts. (Li, R. 25 Feb 2015.)

6.3 Integrated business model

With understanding of the current market situation as well as analysis of competitors, the author is able to analyze internal and external dynamic performance of the case company. Based on such information and understanding, the author finalized a promising partner selection for the new integrated business model for the case company.

Key Partners	Key Activities	Value Propositions	Customer Relationship	Customer Segments
Agents, Distributors, Operation and management company, Financial institute, Design institute, Technology bureau, District heating company	Heat pump production, R&D	Ground source heat pump products, Oilon Brand, Heating supply services, Trust worthy design and installation	Acquisition Retention	Stated-owned firms, Private companies
	Key resources Brand, Finnish know-how, Rational design for set of products		Channels Sales force, Agents, Distributors, Technology bureau, District heating company	
Cost Structure			Revenue Streams	
Manufacturing, Marketing, After sales service cost			Profitable heat pump products and spare parts sales, Heating service fee	

Figure 17. Integrated business model for the case company

In the new integrated business model, customers are established by acquisition and retention of the case company's own sales force, municipal agents and distributors. However, Technology bureau as a governmental organization is also integrated into the new business model as a channel to reach the target customer segments since the Chinese government is strongly support to high-tech environmental friendly companies. The case company, in other hands, provides cost-efficient and energy-efficient heat pump products to Chinese market. The case company could reach out promising customers via resources and information provided by technology bureau. District heating company, as a competitor in the current business model, could be also included in the new business model by providing common interests.

Operation and Management Company as a new concept introduced in this project, is designed to form by district heating company, the case company and contractors of installation. In China, the most used heating supply method is central district heating. Hence, heat pump, as a more energy-efficient substitution, is a direct competitive product. At the same time, heat pump products in China are facing a challenging situation since customers are skeptical of the functionalities of the products. Forming the operation and management Company with district heating company will combine the traditional heating supply method from the district heating company and heat pump as a commercial products to customers. The new operation and management company provides customers a leasing service as a payment method for the purchase of heat pump products. The mechanism of payment of the product will be similar to the current traditional heating supply service; Oilon is selling hot water instead of heat pumps. In the integrated business model, the case company avoids doubts of functionality and feasibility of heat pump products since the operation and management company provides the after sales services to the customers after the installation of the heat pumps by ensuring the supply of hot water in the term of contract. In order to make the mechanism of the integrated business model works, financial institutes such as banks and insurance companies are the key in the business model. Banks and insurances are included into the new integrated business model since the case company requires binding relationships with financial institute in order to provide leasing service to its customers. Since it is lack of legislation in heat pump industry in China, it is important to select a trustworthy contractor as a partner in order to ensure good quality of installation and after sales services.

Without a functional design for the project, it is impossible to fulfill the needs of customers. Therefore, partnership with promising design institute ensures rational design for the project. As well as providing trust worth design and installation of the set of products, the

case company will be able to gain market share rapidly. More importantly, the revenue of the case company generates not only from the sales of products but also from collecting of heating service fees in a long run.

7 Conclusion of the project

To sum up the project, the purpose of this project is to develop a new business model in order to help the case company to increase sales and gain market shares in Chinese market. However, the possibility and feasibility of integration of partners are not included into this project. The project only provides the idea of how to utilize partners to achieve objectives, which cannot be done by the case company itself.

From the external environment point of view, Oilon has both advantages and disadvantage against current external environment in Chinese market. First of all, because of the intensified pollution in China, Chinese government is strongly supporting high-tech industry especially in low carbon environment-friendly products. Therefore the current market situation gives advantages to the case company politically and financially. On the other hand, heat pump industry in Chinese air-conditioning market is lack of legislation and regulation. Moreover, after the stimulation of developing new type of energy supplies after the booming of economy in China in 2008, more and more players had entered the market, therefore, had created big competition in the market. Based on those crucial facts, the case company needs to find a better solution in order to increase sales and gain market shares quickly. Comparing with competitors such as Trane and Carrier, some of the competitors has already changed their strategy because of those crucial facts. Thereafter, with a well understanding of the dynamic performance of the case company, the author was able to generate partner selections based on the performance of the company at present.

7.1 Feedback from the case company

Overall, the mechanism of the new integrated business model is clear. It is also easy for the case company to understand the critical factors how to utilize partners in order to achieve the objectives. The heat pump department manager also agreed the idea of the new business model. From his point of view it would be a potential business model in future if Oilon, as a manufacturer, providing equipment and technologies, cooperates with state-owned district heating companies. Thereafter, the revenue stream will be generated from the heating service fee, which will be divided based on the contribution of all the partners. The heat pump department manager also pointed out as the author also mentioned in the previous chapter, currently the American company, Trane, is operating based on this business model. He also believes that the business model will be successful if the financial institute could be involved in the mechanism of the business model. (Li, R. 03 Nov 2014.)

It is critically and undeniably difficult to intergrade technological bureau into the business model due to the bureaucracy of a governmental organization. From the design institute point of view, it is difficult to convince them to act as an appointed design insititute for Oilon project. Cooperation with district Companies as main elements in the new integrated business model, requires long-term negotiation and operation in order to create a common goal for the future. (Li, R. 25 Feb 2015.) Nevertheless, as mentioned earlier, the feasibility and possibilities of partner integration is excluded from this thesis. Hence the case company should consider and plan carefully with its future strategy about how to engage and approach in Chinese market.

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